



University  
of Cyprus

**DEPARTMENT OF ARCHITECTURE**

**EMPIRICAL EVIDENCE OF A SUCCESSFUL,  
SUSTAINABILITY-DRIVEN ADAPTIVE REUSE:  
A MULTIPLE LINEAR REGRESSION APPROACH**

**DOCTOR OF PHILOSOPHY DISSERTATION**

**DESPO PARPAS**

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DESPO PARRPAS

# VALIDATION PAGE

**Doctoral Candidate:** Despo Parpas

**Doctoral Thesis Title:** Empirical Evidence on the Determinants of a Successful, Sustainability-driven Adaptive Reuse: A Multiple Linear Regression Approach

*The present Doctoral Dissertation was submitted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy at the **Department of Architecture** and was approved on the 3<sup>rd</sup> of April, 2019 by the members of the **Examination Committee**.*

## **Examination Committee:**

**Research Supervisor:** Andreas Savvides, Associate Professor, Department of Architecture, University of Cyprus \_\_\_\_\_

**Committee Member:** Panayiota Pyla, Associate Professor, Department of Architecture, University of Cyprus \_\_\_\_\_

**Committee Member:** Ioannis Kasparis, Associate Professor, Department of Economics, University of Cyprus \_\_\_\_\_

**Committee Member:** Theodoros Zachariades, Associate Professor, Department of Environmental Science and Technology, Cyprus University of Technology

**Committee Member:** Nicholas Falk, Executive Director, The URBED Trust

# DECLARATION OF DOCTORAL CANDIDATE

The present doctoral dissertation was submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy of the University of Cyprus. It is a product of original work of my own, unless otherwise mentioned through references, notes, or any other statements.

Despo Parpas

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## ΠΕΡΙΛΗΨΗ

Η διατριβή αυτή αφορά την εξέταση των καθοριστικών παραγόντων μιας επιτυχημένης, βιώσιμης ανάπτυξης. Η πρακτική της προσαρμοστικής επανάχρησης (adaptive reuse) συνδέεται με την αειφόρο ανάπτυξη, και παρόλο που πιστεύεται ευρέως ότι κυρίως οικονομικοί παράγοντες οδηγούν πιθανά σχέδια ανάπτυξης, μέσω αυτής της έρευνας γίνεται αντιληπτό ότι, στην περίπτωση της προσαρμοστικής επανάχρησης, υπάρχουν και μερικά άλλα συμμετέχοντα κριτήρια. Η εφαρμοζόμενη μεθοδολογία που χρησιμοποιείται για να εξεταστεί το αρχικό ερευνητικό ερώτημα είναι η πολλαπλή γραμμική παλινδρόμηση, και τα συμμετέχοντα κριτήρια που περιλαμβάνονται στο μοντέλο προέρχονται από τα πεδία των κοινωνικο-οικονομικών, του πολιτισμού και του περιβάλλοντος. Τα κριτήρια αυτά είναι επιτυχείς υποστηρικτές τόσο της πρακτικής της προσαρμοστικής επανάχρησης όσο και των σχεδίων για βιώσιμη ανάπτυξη του δομημένου περιβάλλοντος. Το πλεονέκτημα που δίνεται με την εφαρμογή στατιστικών μεθόδων για την εξέταση πολύ-κριτηριακών περιπτώσεων είναι η δυνατότητα για καλά δικαιολογημένα ευρήματα και η πιθανότητα για περαιτέρω διερευνήσεις του θέματος. Τα συμπεράσματα, αν και ενδεικτικά, θεωρούνται πολύτιμο εργαλείο για όλα τα εμπλεκόμενα στελέχη στη λήψη αποφάσεων που στοχεύουν στην επίτευξη επιτυχών βιώσιμων κτηριακών προσαρμογών. Επιπλέον, αν και τα συμπεράσματα που διατυπώνονται σε αυτή τη διατριβή απορρέουν από εφαρμοσμένη έρευνα με στοιχεία μόνο από την Κύπρο, η εφαρμοζόμενη μεθοδολογία θα μπορούσε να εφαρμοστεί σε ένα ευρύτερο πλαίσιο, ανοίγοντας έτσι τους ορίζοντες για μια πιο διευρυμένη διερεύνηση της πρακτικής της προσαρμοστικής επανάχρησης.

# ABSTRACT

This thesis is about examining the determinants of a successful, sustainability-driven development. The practice of adaptive reuse is connected with sustainable development and although it is widely believed that mainly economic factors drive possible development schemes, it is found through this research that, in the case of adaptive reuse, there are some other participating criteria. The methodological tool implemented to obtain the results is multiple regression analysis and the contributions included in the model derive from the realms of socio-economics, culture, and the environment. These vital contributions are successful proponents of both the practice of adaptive reuse and sustainability-driven developments of the built environment. The advantage gained by applying statistical methods to examine multi-criteria cases is the possibility for well-justified observations; the conclusions, although being indicative, are seen as a valuable tool for decision makers and involved stakeholders aiming to achieve successful sustainable adaptations. Although the findings overviewed in this thesis derive from applied research with data from Cyprus, the implemented methodology could be applied to a broader context, hence opening up the horizons for a broader exploration of the practice of adaptive reuse.

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# DEDICATION

To Irene

whose smile could light up every single moment,  
yet was erased from this world so soon, and so unfairly...

DESPO PARRPAS



# TABLE OF CONTENTS

<b>1. Introduction</b> .....	<b>1</b>
1.1 Statement of Purpose .....	5
1.2 Setting the foundations of the dissertation .....	7
1.3 Introduction: Definitions participating in the Dissertation .....	9
1.3.1 Adaptive Reuse .....	9
1.3.2 Successful (?) Reuse .....	11
1.3.3 Defining Sustainability? .....	13
<b>2. Literature Review: Empirical Research</b> .....	<b>16</b>
2.1 Assessment Tools: Overview of Popular Rating Systems .....	16
2.1.1 LEED .....	16
2.1.2 BREEAM .....	17
2.1.3 CASBEE .....	17
2.1.4 GREEN GLOBES US .....	18
2.1.5 Reflections .....	18
2.2 Discussing Rating Systems .....	19
2.2.1 Reaction to Popular Rating Systems .....	19
2.2.2 Reflections .....	23
2.2.3 Proposed Take on Existing Rating Systems .....	24
2.3 Use of Alternative Methodological Tools .....	27
2.3.1 Use of Indexes .....	29
2.3.2 Qualitative Methods .....	33
2.3.3 Quantitative Methods .....	34
2.3.4 Reflections .....	36
2.4 Justification of why the methodology was selected .....	38
<b>3. Literature Review: Implemented Methodology</b> .....	<b>43</b>
3.1 Simple Linear Regression Analysis .....	43
3.2 The Multiple Linear Regression Analysis .....	45
3.3 Statistical Tests and Meaning .....	47
<b>4. Literature Review: Adaptive Reuse</b> .....	<b>49</b>
4.1 Adaptive Reuse Seen as a Proponent of a Sustainability-driven Development .....	49
4.2 Life Cycle and the Notion of Futurity in Adaptive Reuse .....	51
4.3 Futurity and the Connection with Sustainability .....	52
4.4 Reflections .....	54
<b>5. Literature Review: Sustainable Development and Criteria</b> .....	<b>58</b>
5.1 The Pillars of Sustainability .....	58
5.2 Hard Data of the Assessment .....	61
5.2.1 The Realm of Economics .....	61

5.2.2	Tourism as an Economic Driving Force for Redevelopment .....	64
5.2.3	Marketing and Commercialization .....	65
5.2.4	Reflections .....	67
5.3	Soft Data of the Assessment .....	70
5.3.1	Heritage Assets: Vernacular Buildings .....	70
5.3.2	Heritage Assets: Modern Buildings.....	71
5.3.3	Heritage Assets: Preservations Ethics.....	73
5.3.4	Heritage Assets: Authenticity.....	74
5.3.5	Soft Values: The Social Parameter .....	76
5.3.6	Soft Values: Gentrification.....	77
5.3.7	Soft Values: Monitoring .....	78
5.3.8	Reflections .....	81
<b>6.</b>	<b>The Project .....</b>	<b>85</b>
6.1	The Variables of the Model.....	85
6.1.1	The Dependent Variable .....	85
6.1.1.1	Testing the Proposed Formula .....	86
6.1.2	The Independent Variables .....	89
6.1.2.1	Data Tabulation .....	89
6.1.2.2	Final Form of the Independent Variables .....	94
6.1.3	Reflections.....	107
6.2	The Equation Used for the Regression Analysis.....	108
6.2.1	Assumptions .....	109
6.3	Case Studies and Data Collection.....	111
6.4	Implementation of the Model .....	114
6.5	Regression Analysis and Descriptive Statistics .....	115
6.5.1	Statistics of the Independent Variables.....	117
6.5.1.1	Independent Variable 1: Construction Era.....	117
6.5.1.2	Independent Variable 2: Number of Usual Users .....	118
6.5.1.3	Independent Variable 3: Location .....	119
6.5.1.4	Independent Variable 5: Annual GDP Growth Rate .....	120
6.5.1.5	Independent Variable 5: Real Cost of Adaptation Per Sq. Meters .....	121
6.5.1.6	Independent Variable 6: Price Index of the Construction Materials.....	122
6.5.1.7	Independent Variable 7: Primary Construction Material .....	123
6.5.1.8	Independent Variable 8: Type of the Introduced Use.....	124
6.5.1.9	Independent Variable 9: Viability Score .....	126
6.5.1.10	Independent Variable 10: Extension .....	127
6.5.1.11	Independent Variable 11: Change in Use .....	127
6.5.2	Diagnostic Tests and Reliability of the Model.....	129
6.6	Testing Alternative Versions of the Regression Analysis Model.....	132
6.6.1	Overview .....	132
6.6.2	Testing Outcome.....	135
<b>7.</b>	<b>Discussion and Conclusions.....</b>	<b>140</b>
7.1	Independent Variables' Correlations with the Degree of Successful Sustainable Adaptive Reuse.....	140
7.2	Independent Variables' Statistical Importance.....	144
7.2.1	Predictions Overturn .....	144

7.2.2 Original Materiality .....	145
7.2.3 Viability Index .....	147
7.2.4 Matters of Culture, History and the Society .....	149
7.2.5 Operational Matters .....	149
7.2.6 The Human Factor .....	150
7.3 Assessments Methodology .....	152
7.4 Stakeholders' Stance .....	155
7.5 Limitations and Future Development .....	156
<b>8. Final Reflections .....</b>	<b>158</b>
<b>9. References .....</b>	<b>160</b>
<b>10. Appendices .....</b>	<b>168</b>
10.1 Appendix A .....	168
10.2 Appendix B .....	173
10.3 Appendix C .....	184
10.4 Appendix D .....	393
10.5 Appendix E .....	397
10.6 Appendix F .....	398
10.7 Appendix G .....	401

# LIST OF FIGURES

Figure 1: Dissertation Outline.....	4
Figure 2: Dissertation Outline II .....	4
Figure 3: Dissertation Development Layout .....	8
Figure 4: Graph of the Simple Linear Regression.....	44
Figure 5: Adaptive Reuse as a Successful Proponent of Sustainable Development.....	56
Figure 6: GDP Growth Rate in Cyprus from 1960-2017 ( <i>World Data Bank</i> ) .....	98
Figure 7: Price Index of the Construction Materials in Cyprus from 1960-2018 ( <i>Cyprus Statistical Service</i> ).....	100
Figure 8: The Different Criteria Participating in the Dissertation's Model.....	107
Figure 9: Perfect Multicollinearity between Independent Variables $x_1$ and $x_2$ .....	110
Figure 10: The Diversity of the Case Studies: Collage.....	112
Figure 11: Data Collection Outline .....	113
Figure 12: Descriptive Chart: 'Construction Era' .....	117
Figure 13: Descriptive Chart: 'Number of Usual Users' .....	118
Figure 14: Descriptive Chart: 'Location' .....	119
Figure 15: Descriptive Chart: 'GDP Growth Rate'.....	120
Figure 16: Descriptive Chart: 'Real Cost per Square Meter' .....	121
Figure 17: Descriptive Chart: 'Price Index of the Construction Materials' .....	122
Figure 18: Descriptive Chart: 'Primary Material'.....	123
Figure 19: Descriptive Chart: 'Type of the Introduced Use' .....	124
Figure 20: Descriptive Chart: 'Viability Score'.....	126
Figure 21: Descriptive Chart: 'Extension' .....	127
Figure 22: Descriptive Chart: 'Change in Use' .....	127
Figure 23: Different Versions of the Model: Work Diagram .....	134

# LIST OF TABLES

Table 1: Proposed Take on Rating System .....	25
Table 2: Testing the Formula of the DoSAR: Four Different Scenarios.....	87
Table 3: Testing the Range of the DoSAR Formula: Five Different Scenarios .....	88
Table 4: Data Tabulation .....	90
Table 5: Viability Index Evaluation Form .....	103
Table 6: All the Variables of the Model.....	109
Table 7: Model's Descriptive Table ( <i>Formed by Stata®</i> ).....	115
Table 8: Regression Run: Model's Estimations ( <i>Formed by Stata®</i> ) .....	116
Table 9: Indication of Heteroskedasticity ( <i>Formed by Stata®</i> ).....	129
Table 10: Regression Run with Robust Standard Errors ( <i>Formed by Stata®</i> ) .....	129
Table 11: Comparison of the R-Squared.....	130
Table 12: Correlations between the Independent Variables ( <i>Formed by Stata®</i> ).....	131
Table 13: Different Versions of the Model .....	133
Table 14: Comparison of the Different Versions of the Model.....	135
Table 15: Comparison of the Different Versions of Model C.....	136
Table 16: Comparison of the Different Versions of Model B.....	137
Table 17: Comparison between the Best Version of Models B and C .....	138
Table 18: Model B: Testing with the AIC and BIC Criteria .....	139
Table 19: Model C: Testing with the AIC and BIC Criteria .....	139
Table 20: SWOT Analysis of the Project .....	157

# 1. INTRODUCTION

In contemporary conservation practices focusing on sustainable development, there are several apparent considerations. For example, both fields of research and practice encompass the themes of cultural identity and community cohesion, and at the same time the tangible and the intangible matters are recognized. However, the emergence and quantification of different capacities are challenging tasks that fall into the dynamic process of the so called sustainable development. Lifestyle trends, the state of politics, the economy and the environment are constantly changing, thus changing the framework in which regeneration policies are developed and implemented.

Since the late 1980's, the European Union has been encouraging economic and cultural developments within the scope of its common heritage. Adaptive reuse as a practice has been holding a prominent role in such developments with specific regions as a beneficiary. Many architecturally significant buildings in historical cores have been preserved, and abandoned areas have been transformed into vibrant communities through responsive initiatives, and, simultaneously, both residents and visitors have been positively affected. Deliberate architectural and culturally appropriate adaptive reuse projects appear to be an entrepreneurial tool in achieving a viability-driven urban regeneration. Thus, adaptive reuse is strongly connected with popular themes of sustainability as it embraces key points that derive from the prongs of economic, social, environmental, and cultural frameworks.

Adaptive reuse as a practice is largely taking part in redevelopment projects globally, and it could contribute to neglected sites within the existing built fabric. However, an important question to ask is why some buildings flourish through their adaptation more than others.

This study explores adaptive reuse with a multiple linear regression analysis. This type of methodological analysis emanates from the realm of statistics and is also partly used in econometrics. **This dissertation aims to establish the criteria or variables that contribute the most to successful adaptation.** The methodological tool implemented for the purposes of this dissertation allows for a number of case studies to be examined, which leads to more universal conclusions. Furthermore, both tangible and intangible considerations can be taken into account, which is essential since the management and planning of neglected sites should include both of these considerations.

In conjunction with the objective stated above, the establishment of the criteria that play a key role in a successful adaptive reuse could benefit policy makers and other researchers. It could also be responsible for the adaptation of new development policies by the state in order to target certain buildings or neighborhoods in need of revitalization. A starting point for this research was the selection of one hundred and four (104) case studies from the existing building stock of Cyprus. Apart from insights into the current situation in Cyprus, this research could also be implemented to take into consideration other countries or broader regions. In this sense, it could serve as a vehicle for more expanded research, as it can fundamentally be considered a pilot study (because it is based on data obtained solely from Cyprus).

To sum, considering adaptive reuse as a practice driven by sustainable principles, the overarching question of this dissertation is: **when is adaptive reuse more successful?**

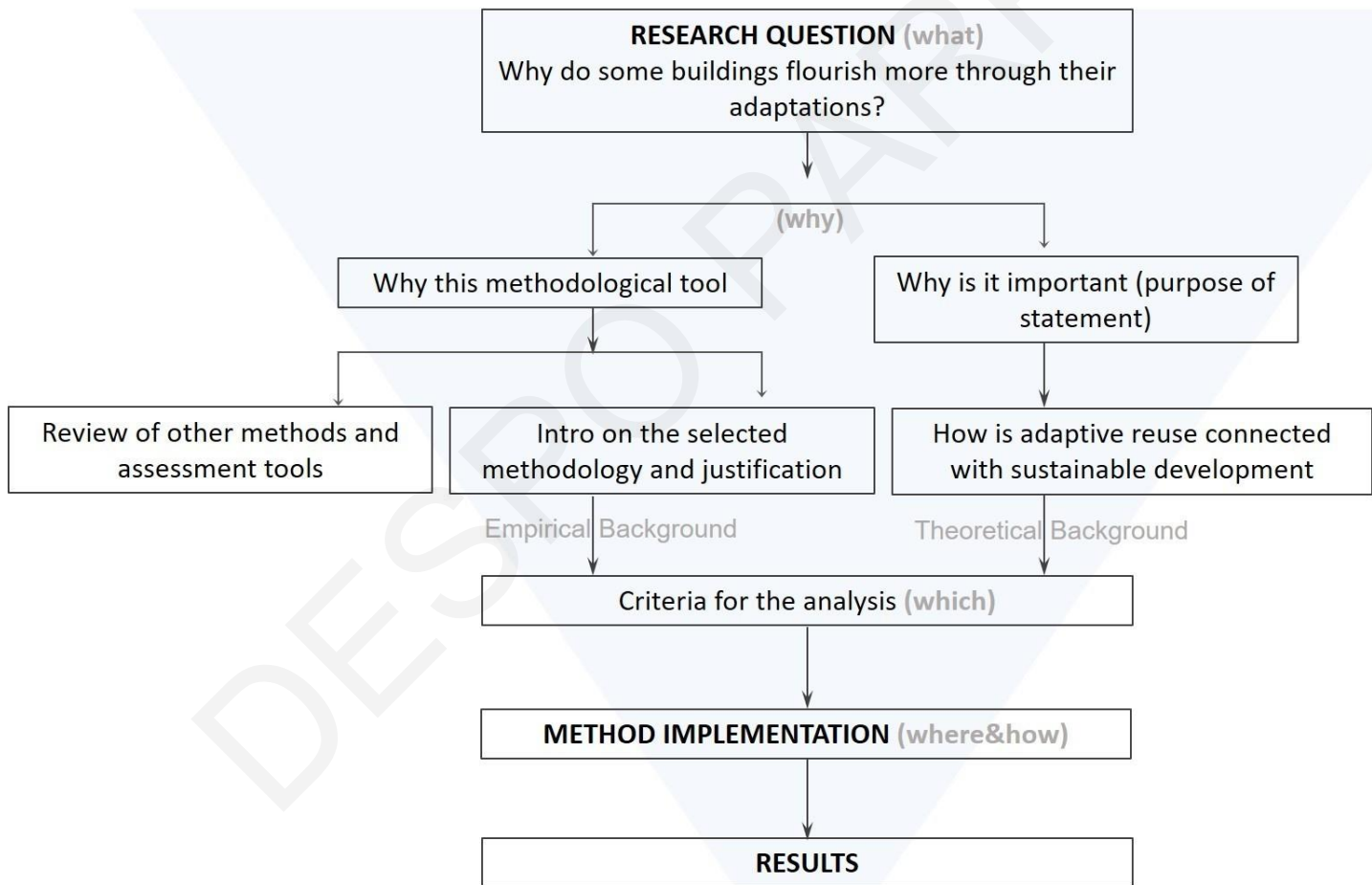
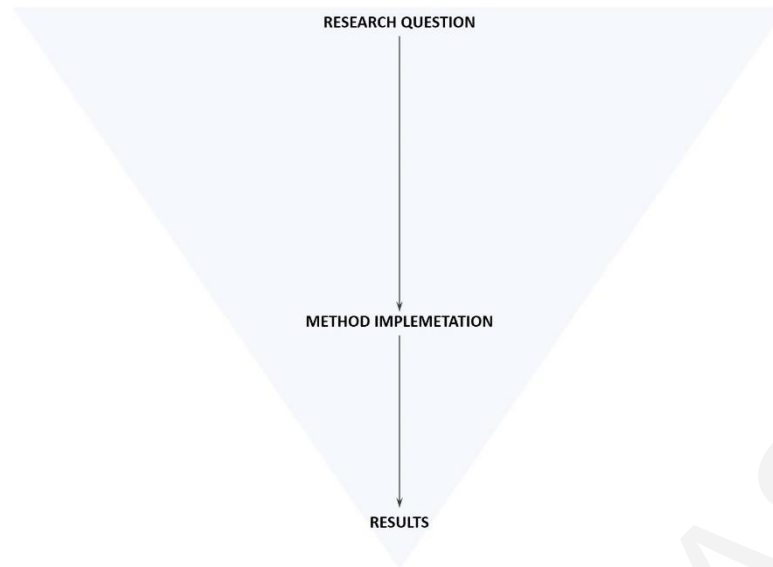
First, the primary question will be examined through this project to eventually achieve the purposes of this dissertation. Secondly, upon deconstructing the title, it becomes evident that three different commodities<sup>1</sup> are being examined through this project:

1. Possible methodologies and assessment tools that are considered good candidates for answering the primary question will be investigated. The investigation and the process of choosing the methodology that serves best the cause will be expanded in Chapters 1 and 2.
2. Adaptive reuse is considered to be a practice that falls under sustainable development – but why, and what does sustainability really mean? The answer to these questions will have a supplementary role and will help justify the reasons why adaptive reuse, for this dissertation, involves subjects from the prongs of sustainable development which is seen as a process and not a goal to achieve. Adaptive reuse, in regards to this, is explored in Chapter 3.
3. Finally, an important question to ask is how one chooses the criteria to be introduced to the analysis, following the preferred methodological tool. The bibliographic review, of both empirical and theoretical research in Chapter 4, serves the purpose of finding the appropriate criteria that will be examined in order to find answers to the primary question.

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<sup>1</sup> i. the use of multiple linear regression analysis, ii. the criteria participating in the analysis and iii. the correlation of adaptive reuse with sustainability





Figures 1 and 2: Dissertation Outline

## **1.1 Statement of Purpose**

The findings of this study unfold upon the data collection and analysis of the current situation of Cyprus. Apart from taking a glimpse at the character of adaptive reuse in this region, the correlations between the several parameters or criteria could possibly affect decision making when it comes to assessing whether to adapt a building or not. The analysis provides insights into the statistics (or trends) of the existing practice of adaptive reuse, and therefore, the involved stakeholders could benefit from such an analysis.

The picture from current redevelopment schemes or projects of a smaller scale in connection with evidential statistical results could help make predictions of what would be most successful when it comes to adaptively reusing a unit. Hence, policy makers could have more knowledge of interconnected subjects around adaptive reuse, and their approaches could be more ethical and holistic towards a sustainable future.

The applied methodology for this study provides the grounds for possible predictions to be made based on an analysis of the existing trends and situations. Consequently, based on these observations and predictions, certain units or areas of great potential for redevelopment could be targeted by individuals or the state in order to be retained and filled with life. Besides, obsolete buildings can only result in a region's despair, not only on the neighborhood scale but on a larger scale as well. Safe-keeping the built heritage has to provide a lot of benefits to both the individuals and the communities involved. Traces of history maintain the context's narrative, feelings of insecurity and distaste are eliminated within a coherent and preserved environment, and energy-related consumption, time and

costs are all minimized. These are some of the reasons adaptive reuse is considered sustainable as well (but this will be expanded further in the respective chapter).

Following this mode of thinking and given that some buildings are not appreciated enough to be adaptively reused, or do not flourish in comparison to other more successful examples, it is evident that it would be a cause for regret not to investigate the reasons behind the failure of some adapted buildings. On the other hand, it would be advantageous to look into the incentives that could potentially contribute to a reused building's success. Therefore, in order to meet the primary objective of this research, which is to determine successful proponents of adaptive reuse, it was fundamental to seek possible ways to measure success and to review different methods of assessment.

## 1.2 Setting the foundations for the dissertation

The Statement of Purpose elaborates **the importance of establishing the criteria** that most affect a successful adaptive reuse, and proposes possible use by a diverse group of entities that could benefit from the answers given to the overarching question of the dissertation.

Following the introduction, the dissertation develops in two main units: the literature review, which sets the foundations of the project, and the project itself, which unfolds to explore the core ingredients of the primary question driving the study as a whole.

The literature review is twofold; the development of the project involves contributions from both empirical and theoretical research. First, the empirical research provided the grounds to investigate the existing methods that are being used or have been implemented previously to answer questions related with adaptive reuse and/or sustainable development (**Chapter 2**). Based on this review, the decision to use multiple linear regression analysis for this cause was indeed justified. In addition, some similarities among the different methods surfaced, as well as some shortfalls. The critique or praise upon them provided the grounds for introducing the implemented methodology, and the first possible criteria to take part in the analysis.

On the other hand, the theoretical background also held a major role in establishing the connection between sustainability and adaptive reuse (**Chapter 3**), and into finding appropriate criteria to be intertwined with the analysis (**Chapters 4 and 5**), as these surfaced from their contribution in discussing the aforementioned entities.

In **Chapter 6**, the project itself unfolds, firstly by introducing the model used and the criteria participating in the analysis, and then by providing the results produced by the analysis accompanied by some experiments to optimize the model itself, and therefore to conclude to the most efficient, and reliable, model.

The overview of the project is followed by a discussion on the analysis and results, as well as the general conclusions (**Chapter 7**). The dissertation concludes with final reflections concerning the project itself and how the objectives were met, as well as the implemented methodology and its outcomes (**Chapter 8**).

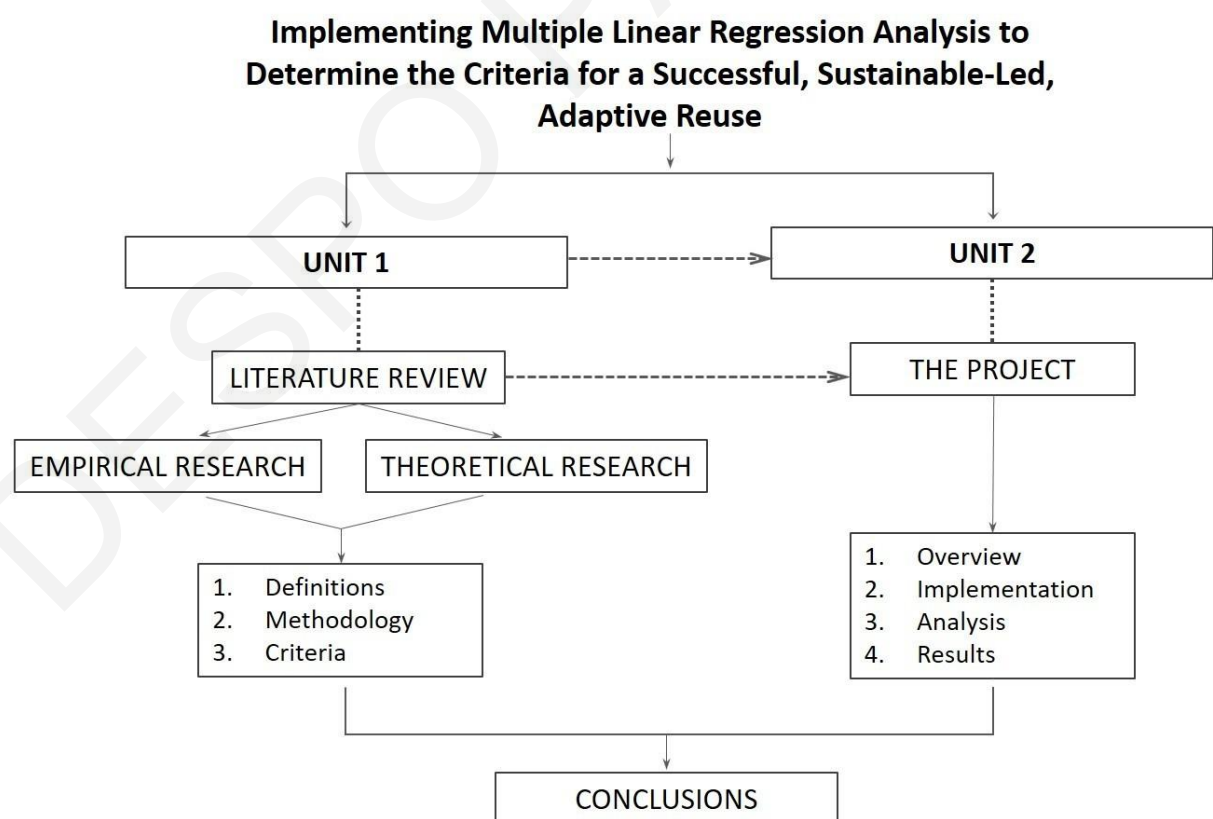


Fig. 3: Dissertation Development Layout

## **1.3 Introduction of the Definitions Participating in the Dissertation**

### **1.3.1 Adaptive Reuse**

The definition for Adaptive Reuse given by the Office for Design and Architecture of South Australia (ODASA), is the following: “to re-use a building or structure for the purpose of giving it new life through a new function” (ODASA, 2014, p.1). Moreover, Ijla and Broström (2015) define it as follows: “adaptive reuse is described as developing the potential of additional use and wear for functionally obsolete buildings – it is essentially the recycling of a building” (Ijla & Broström, 2015, p.530). They correctly separate adaptive reuse from restoration and renovation as these practices aim to restore a building to a certain period or to upgrade it, respectively. They argue that adaptive reuse seeks to find a new use for the building. However, is this always the case? Adaptive reuse, semiotically, means to reuse in order to fit (from Latin Ad+aptar which means to+fit). An interesting question is – to fit what? The changing needs of contemporary lifestyle; the new use; the changing climate, or the context? Following the same mode of thinking, Bullen (2007) uses the term adaptive reuse without necessarily implying a change of use but generally as works including “rehabilitation, renovation or restoration”. The term retrofit is also widely used in the literature.

In contemporary times, older buildings are reused to fit contemporary lifestyles and changing needs. Most of the time, a new use is introduced to the existing shell, sometimes requiring restoration, upgrading or repairing works - the degree of which depends on each specific case. For example, there are cases where old warehouses were reused to accommodate cultural or commercial uses

because the former operations ceased and new uses needed to be introduced in order to satisfy the changing needs of the built context and the owners' preferences, e.g. the old warehouses in Nicosia's city Centre or Limassol's old harbor area. However, sometimes, the building is not reused to adapt to a changing lifestyle by accommodating a new use, but it is reused to adapt to the new user's preferences without changing the primary use of the building. Acknowledging that adaptive reuse does not refer solely to reused buildings with a change in use was really important for this dissertation. The cases examined were recycled buildings existing in the inherited built fabric: some of the cases were buildings whose reuse included a change of use to fit the user's needs. At the same time, some of the cases were reused buildings with no change of use but a change of ownership or of a lifestyle that asked for the building to adapt to the new dominating conditions by following contemporary approaches and finding viable solutions.

An important aspect of this dissertation is that adaptive reuse does not concern only highly important historical buildings (or museum pieces), but also plain, ordinary buildings existing in the built context (Jane Jacobs also praised this approach as early as 1961). Furthermore, adaptive reuse, according to Bullen (2007), will "extend the useful life and sustainability in a combination of improvement and conversion". Going off from this, it is important to remember that not all buildings are suitable to be adapted and sometimes their configuration and physical condition are not suitable enough to lead to a viable solution. The main objective of a potential adaptation is for the buildings to perform well and not poorly in order to meet the occupants' needs and to stand the test of time in order to also meet the future's needs. Henceforth, their useful life will be extended

in a viable way because adaptation is a method of extending the useful life of buildings, and hence their sustainability, by a combination of improvement and conversion (Ijla & Broström, 2015).

And this leads to another important question: **when is adaptive reuse successful?**

### 1.3.2 Successful (?) Reuse

The degree of success of a reused unit is often based on subjective considerations, and it can also be seen as an intangible quantity described through reports metering significance. With regards to the first, the success of a reuse is sometimes based on the restoration works and the quality of which the new approach is applied regarding the materiality or the respect paid towards the older built fabric. For example, the Getty Institute has created a checklist or list-points containing several aspects of the cultural and historical significance of various individual components of a building (Dardes, K.E et al, 1999). The degree of significance and the rightfulness of the restoration works are described in extended reports providing guidelines and highlighting certain important points. Consequently, the result produced after this process of evaluation cannot be quantified as it is of a descriptive nature.

Another way of measuring the success of an adaptive reuse unit would be by taking into consideration the number of usual users and the popularity the building gains after the works are completed. This could be associated with the field of space syntax where researchers can establish that "movement patterns are powerfully shaped by spatial layout, patterns of security and insecurity are affected by spatial design, this relation shapes the evolution of the centres and



sub-centres that makes cities liveable, spatial segregation and social disadvantage are related in cities, and whether buildings can create more interactive organisational cultures<sup>2</sup>". The use of space syntax could be informative with regards to the degree of powerful relationships and movements, around, or within an adaptively reused unit. However, this approach would rule out the possibility of good examples of adaptive reuse in remote (or not widely known and used) areas, which would be limitative for the purposes of this dissertation.

Furthermore, the popularity of a unit as an indication for success holds two major disadvantages. First, some reused buildings do not have public use, and some are located in remote areas, making them inaccessible to large groups of visitors – something that a building would need in order to be considered popular. Second, personal preferences and trends are subjective matters. A building accommodating a new use could be successful for a period of time, and then it could lose its prestige as human trends are unpredictable (also see qualitative research by Bullen and Love, 2011). When a building is being reused and the new use is of a private nature, the number of usual users could not work, effectively, as an indicator of the building's success even if the building is well-loved and respected by the members of the respective local community.

For the reasons explained above, an effective method of measuring a successful rehabilitation would be by **expressing this intangible quantity in tangible terms**. If the success lies in the fact that a building's life is extended and the rehabilitation (or the strategy followed) has contributed to the continuation of a building's purpose within its context, then a formula based on simple ratios that uses the active years of the building's separate phases could be

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<sup>2</sup> <http://www.spacesyntax.net/>

implemented in order to measure the sociotemporal success of the reuse. As a measurable quantity, the active years of a building can provide the means for more effective comparisons. Moreover, time itself is correlated with the talk on futurity which is a major component of both sustainability and preservation. Especially when discussing sustainability, time is a viable, yet sometimes forgotten, ingredient for grasping a small part of what sustainability's real essence is.

### 1.3.3 Defining Sustainability?

Sustainability is defined by, and is connected with, different realms and different practices. Worster (1993) argues that people should be more careful when defining sustainability as the latter is connected with different realms and he believes that each of these realms uses a different language when it comes to the establishment of a description. Maybe this is the reason why sustainability does not (and should not) have a fixed and exact definition – a subject which has also been discussed by other scholars (Djalali and Vollaard, 2008; Pyla, 2008). Also, it is argued that sustainability is more or less like every other catch phrase that lacks deep meaning as the actions towards a sustainable development end up narrow (Worster, 1993). In other words, what is highlighted here is that critical thinking should be adopted in order to deal with the real substance of sustainable development rather than to be caged into cold and narrow checklists and definitions, and to think of it as a norm or as a goal; sustainability cannot follow fixed guidelines as all of the themes that participate in its process are unstable, changing and evolving.

This dissertation stands with the realization that sustainability is less a descriptive term and less a state of an era/a project, than it is an endless process in which time holds a key role. It would be unfair, wrong even, to talk about an achieved balance when discussing sustainability and methods of assessment falling under this subject. Maybe it would be better **to take into consideration all of the important elements participating in sustainability without expecting that their contributions be measured in equal parts**. Every case study, a single unit or an area under investigation, is unique and it is characterized by a certain identity carrying a particular story in their own right. Therefore, following an approach aiming to achieve *this* balance among the different ingredients of sustainability would be naïve.

Similarly, all strategies and implemented approaches should address all questions concerning a sustainable development, yet stakeholders should not be caged in the given definitions of sustainability that praise a result achieving a balance among the contributing pillars. On the contrary, one should grasp the true meaning of thinking in a sustainable mode which aims for a viable future and a change in mentality without forcing or targeting equal contributions and without caging sustainability as a norm.

This dissertation takes into consideration several important elements emanating from the discussion around sustainability, that is, following sustainable thinking when it comes to schemes involving adaptive reuse, and applying viable strategies.

### A 'successful adaptive reuse' for this project

- Success is an abstract notion, the definition of which is often based on objective considerations, and it cannot be measured easily.
- For the purposes of this dissertation, adaptive reuse is partially grasped as a quantity which is then measured and compared to previous adaptations. A formula was created using a measurable quantity (time/ active years), to investigate the extent to which the adaptation benefited the unit itself, by continuing its life (the ratio expressing the formula is explained in the respective section). In cases where the strategy implemented led to more active years, then the reuse was considered more successful, as opposed to cases where the new approach ended up ceasing a unit's operation.
- Success itself in this dissertation is labelled as spatiotemporal because a potential asset continues to exist in its context (spatial success) and in time (temporal success).
- 'time' is a valuable term for this dissertation, as it is connected to both adaptive reuse and sustainability.

## 2. LITERATURE REVIEW: EMPIRICAL RESEARCH

### 2.1 Assessment Tools: Overview of Popular Rating Systems

Following the purposes of this dissertation, which is to establish the determinants of a successful adaptive reuse, it is important to look into possible methodologies. The following methods are overviewed in terms of their method of evaluating reused buildings, and with regards to their efficiency, their potentials, their performance and, indirectly, their success. There are numerous rating systems applied globally, but the ones briefly presented below are used in a wider context and are considered to be more multi-dimensional and more successful in the implementation of the assessment itself.

#### 2.1.1 LEED

One of the most popular rating systems is LEED, which is widely used in several countries. The rating system was developed by the U.S Building Council, and the assessors have to pass an examination after going through certain training. LEED has various versions, each addressing different forms of construction like: new construction, existing buildings, commercial interiors, core and shell, neighborhood development and homes. LEED hooks upon the following categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality and Innovation and Design Process. The question arising here is whether or not this system purely assesses the ecological aspect of the construction and does not touch the catholic meaning of sustainability. Although some of the categories mentioned above have some hints

towards sustainable matters, the rating system itself evaluates the green side of a development awarding platinum, gold, and silver rankings<sup>3</sup>.

### 2.1.2 BREEAM

Another popular rating system is BREEAM (Building Research Establishment's Environmental Assessment Method) which is based on quantifiable characteristics over the development's sustainable performance. BREEAM categories consist of the following subjects; management, health and wellbeing, energy, transport, water, materials, land use, ecology and pollution. Compared to LEED, BREEAM has more to offer in terms of assessing the more economical and social aspects of sustainability. The ranking awarded for this rating system is Pass, Good, Very Good and Excellent<sup>4</sup>.

### 2.1.3 CASBEE

CASBEE (Comprehensive Assessment System for Building Environmental Efficiency) again focuses on the Ecological Performance of a development and its categories include: Building Environmental Quality and Performance, Indoor Environment, Quality of services, the outdoor environment on site, Energy, Resources and Materials, Reuse and reusability, Off-site environment. The assessment is undertaken by trained professionals from the field of architecture. This methodology of assessment is based on quantifiable parameters dissimilarly to GBTool which is based on qualitative parameters as well. GBTool is considered one of the most difficult rating systems regarding the assessment itself as it necessitates experts on technical matters to evaluate the sustainable performance

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<sup>3</sup> Information obtained from: [new.usgbc.org](http://new.usgbc.org)

<sup>4</sup> Information obtained from: [www.breeam.com](http://www.breeam.com)

of a development. The scores scale from -1 to 5 indicating below typical practice and very high performance respectively. This rating system's categories include energy and resource consumption, environmental loadings, indoor environmental quality, appropriation of site, planning and maintenance<sup>5</sup>.

#### 2.1.4 GREEN GLOBES™ U.S

A different kind of assessment is provided by Green Globes™ U.S which allows the users to evaluate their built environments taking into consideration the applicable points provided by the system. The system's most important categories include project management, site, energy, water, indoor environment and resources, building materials and solid waste. Green Globes is developing tools that address major renovation, tenant build-out, and operations and maintenance applications<sup>6</sup>.

#### 2.1.5 Reflections

It is true that the majority of the existing rating systems state their function from the beginning, that is connecting their assessment with more environmental matters around sustainability. Upon this acknowledgment, no criticism should occur concerning the final character and scores. On the other hand, criticism should occur towards some stakeholders' exploitation of the scores achieved by some rating systems in order to advertise a *targeted* sustainable attitude of a building when clearly some important aspects of it are left out (these will be discussed later in another section). Moreover, a rating system evaluating a building's performance, and for this study a repurposed building's performance,

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<sup>5</sup> Information obtained from: [www.ibec.or.jp/CASBEE/english/](http://www.ibec.or.jp/CASBEE/english/)

<sup>6</sup> Information obtained from: [www.greenglobes.com](http://www.greenglobes.com)

should address all aspects of sustainability as the latter is a complex notion which intergrades ecological, economic, social *and* cultural matters. An extended investigation of this matter and a review of LEED and BREEAM, comparisons between the two, and results after applying the aforementioned rating systems to an existing building potentially to be reused, can be found in Appendices A and B.

## **2.2 Discussing Rating Systems**

### **2.2.1 Reaction to Popular Rating Systems**

Elefante (2007) discusses possible alternative strategies in order for the vernacular buildings to become eco-friendlier (by protecting the substantial and cultural value and by emphasizing on the energy and environmental efficiency and character). Although he talks about the hierarchy of the building's different parts based on their life cycle (structural construction, shell, interior elements, systems), he does not refer to how the building could gain a more sustainable character. On the contrary, his discussion concerning sustainability mainly revolves around environmental concerns and how a building could be more efficient in terms of consumption and green behavior. This reflects the fact that sometimes people confuse sustainability with, or focus more on, the eco-friendly character of a case. Davenport (2012) highlights this confusion, and he also notes that sustainability can only be achieved with interdisciplinary cooperation in a mature time framework. For the points noted here, an important decision leading this dissertation was that the analysis would include several points addressing not only eco-friendly aspects. On the contrary, an effort to follow a multi-criteria framework was made because a development towards sustainability should be able to incorporate important parameters connected with all aspects of viability.



Merlino and Steinbrueck's (2008) position is that new measures and guidelines are needed for the evaluation of how sustainable a building is in order for the practice of adaptive reuse to be promoted; they argue that the era of restoration could guide sustainability in cultural, economic and environmental terms. The authors' positions portray a more universal application even though some controversies are noted. For example, there is a tendency to focus more on the original design of a building in terms of its energy efficiency and performance when it comes to its assessment. Also, instead of reaching an assessment proposal, they propose tax and economic incentives to promote the building's reusability. Fundamentally, they do see existing buildings as cultural capital to be exploited towards a sustainable future, but disappointingly enough, they do not enrich the assessment methods with criteria concerning the cultural aspects of sustainability. It is important to highlight through this dissertation that the cultural aspects, as well as the social ones, are clearly stated within the assessment method and are major drivers that contribute to the sustainable character of a building. Similarly to Merlino and Steinbrueck's position, it is believed that the importance of reusing existing buildings should be recognized and that adapting existing buildings to contemporary needs is vital for a region's sustainable character.

Botta (2005) seems to agree with Elefante (2007) and Merlino and Steinbrueck (2008) that the direction followed nowadays for projects concerning regeneration of the existing building stock tends to focus on the green or environmental aspects of the general field of sustainability. The methodology followed by Botta (2005) to assess a building concerning its sustainable behavior is an empirical analysis that she based on both personal and existing data. At the same time, her analysis of

the projects takes into consideration the following aspects of sustainability: environmental, social, cultural, economic, institutional. The tools used in Botta's research include readings of historical documents, study of drawings, direct observation and correspondence with the current stakeholders, technical documentation such as project programs, architectural drawings, building permits, environmental and maintenance plans and data about energy/water consumption and garbage collection. Collecting data from several and different sources could be enriching for the analysis stage and this was the selected route followed for this dissertation as well. Moreover, studying drawings and observing the assets physically could provide crucial information in terms of a building's configuration, properties and performance, as well as in terms of the relationship the asset has with the surrounding context and built environment. Correspondence with involved stakeholders such as the occupants, the owner or the architects, could provide important information concerning costs, performance, maintenance and the building's history. The addition to Botta's data collection tools, for the purposes of this dissertation, would be the use of data obtained from statistical and other state services. This data could provide crucial information that affects a building's wider context in legislative (e.g. preservation regulations) or economic (e.g. price indexes) contexts.

Ferris (2010), as well, studies cases that combine historic preservation with sustainability examining how the current LEED system can be applied to them and proposes additions or revisions in order for the system to address more issues concerning the practice of preservation. Ferris (2010) highlights the necessity for responsible approaches towards preservation, while also talking about how older buildings undergo some renovations in order to be upgraded and more

sustainable. It is highlighted that “LEED focuses on new construction, an emphasis that neglects the reality of our current built environment and the potential to reuse buildings that are already standing in more sustainable ways” (Ferris, 2010, p.12). Therefore, it is noted that there have been propositions for alterations in the LEED rating system because it does not include issues on the cultural aspect of sustainability, nor does it include an acknowledgment of the embodied energy of old buildings. Contrary to the original intentions, the proposals focus on the materiality of the historic buildings, mainly on the individual components, the building’s footprint or its original design that was realized based on local characteristics and weather behavior (Ferris, 2010).

Undoubtedly, LEED, as well as other assessment tools, should be able to be applied more to historical buildings as users are not encouraged to adaptively reuse existing buildings, and it seems that there is an advantage of the new constructions over the historical ones when it comes to the rating system itself. When implementing the LEED for Existing Buildings and the BREEAM for Renovation to an adapted unit, it is evident that the results achieved are satisfactory (appendix A contains more information on this). However, some points were achieved relatively easily as they revolve around certain energy-efficient or eco-friendly product purchases. This could be translated as the systems’ weakness, or it could be read as the systems’ decision to focus on the green aspects of the current market and trends rather than on the substantive, sustainable behavior of a building.

### 2.2.2 Reflections

Although certain rating systems deal with a number of sustainable design strategies and practices, their implementation shows that a lot of important criteria pertaining to the sustainable development of a listed building or a small-scaled community are not included. For example, when a historic vernacular building is adaptively reused, the adapted form and function impact the scale of the whole community and the surrounding built fabric. Matters revolving around this acknowledgment should be added to rating systems evaluating a reused building's sustainable character:

First, the initiative to upkeep a historic building and to introduce a new use complements the effort to conserve land and to reduce urban sprawl. This is crucial, especially in the development of a small traditional village where the identity of the place in its authentic local context holds the primary responsibility for its uniqueness and identification.

Other criteria that could be included into the checklists and that could help a building gain more appreciation in terms of its sustainable character could be: the maintenance of its scale within the surrounding context if it is considered to be viable and practical, or the use and reuse of local and indigenous materials and construction techniques. The latter point addresses all aspects of sustainability while being in agreement with the international charters and declarations on historic preservation. Also, a new addition could be the continuation of the cohesiveness that characterizes the entire built fabric of the community, providing the possibility for its historical and aesthetical value to be preserved.

Moreover, the addition of a new use in a former residential building provides the foundations for the opening of new work opportunities, it promotes

economic growth in a variety of scales and, also, it revolves around the individual user as it proposes a new space for social interaction within a community where the population, and especially the youth, is decreasing. Therefore, some points could be added concerning the revenue that is created when adapting a unit or a complex.

To sum, although the rating systems point to some interesting tectonic contributions that could be made and refocus the users towards upgrading their buildings, they sometimes confuse green or eco-friendly practices with sustainability. A more beneficial effort would be the development, or upgrading, of certain rating systems so as to have universal application and to include more criteria, not only for the buildings as units but also for their surrounding contexts. For these reasons, this dissertation includes points addressing more aspects concerning a unit's context when assessing a building's viable adaptation.

### 2.2.3 Proposed Take on Existing Rating Systems

The following table shows the points constituting LEED and BREEAM and some additional points that are considered important for a building's assessment for the purposes of this dissertation. However, the points noted in this table are only some of the important aspects that the proposed model looks at (the process of decision making to include all involved criteria unfolds in the following sections). **DoSAR stands for the Degree of a Successful Adaptive Reuse, which reflects the spatiotemporal success of a unit, and it is the index used for the purposes of this dissertation.** It is correlated with several independent variables (criteria) emanating from the literature review.

<b>BREEAM</b>	<b>DoSAR (*)</b>	<b>LEED</b>	<b>DoSAR (*)</b>
<b>Management</b> Commissioning Monitoring Waste Recycling Pollution Minimization Materials Minimization	 X X X X		
<b>Health &amp; Wellbeing</b> Adequate Ventilation Humidification Lighting Thermal Comfort	X X X	<b>Indoor Environmental Quality</b> Environmental tobacco smoke control Outdoor air delivery monitoring Increased ventilation Construction indoor air quality Use low emitting materials Source control Controllability of thermal and lighting systems	 X  X  X  X
<b>Energy</b> Sub-Metering Efficiency and Co2 Impact of Systems Transport Emissions	 X X X	<b>Energy and Atmosphere</b> Commissioning Whole building energy performance Optimization, refrigerant management Renewable energy use, and measurement and verification	  X  X
<b>Materials</b> Asbestos mitigation Recycling facilities Reuse of structures Facade or materials Use of crushed aggregate and sustainable timber	  X X	<b>Materials and Resources</b> Recycling collection locations Building reuse Construction waste management The purchase of regionally manufactured materials Materials with recycled content Rapidly renewable materials Salvaged materials Sustainably forested wood products	  X  X  X    
<b>Land Use</b> Previously used land Use of remediated contaminated land	 X X    +vegetation restoration	<b>Sustainable Sites</b> Construction related pollution prevention Site development impacts Transportation alternatives Stormwater management Heat island effect Light pollution	        X   +coherence with

			surrounding context +respect towards existing fabric
<b>Ecology</b> Land with low ecological value or minimal change in value Maintaining major ecological systems on the land Minimization of biodiversity impacts	X  X  +Green Open spaces +covered Parking Space		
<b>Pollution</b> Leak detection systems On-site treatment Local or renewable energy sources Light pollution design	X  X		
		<b>Water Efficiency</b> Landscaping water use reduction Indoor water use reduction Wastewater strategies	X
		<b>Innovation and Design Process</b>	X  +Impact on economy +cultural and social values??

Table 1: Proposed Take on Rating Systems

### **2.3 Use of Alternative Methodological Tools**

Protecting what already exists and helping to convey it to future generations could be applied both to history and sustainability. This has to do with durability and the life cycle that most of the existing literature praise and include. Maybe the rating systems and the different methodologies should include more abstract notions like history and society, as these should be taken into account when it comes to sustainability-driven approaches.

Although popular rating systems encourage owners to build/develop/renovate sensibly towards sustainability, some issues of the current versions cannot be applied to historic buildings that are being retrofitted. Owners could be encouraged to adaptively reuse historic buildings by a new rating system addressed to this category. Consequently, they would be acting in ways that could benefit the environment, the economy and the society aiming to achieve a good score on any rating system. This is important because the popularity current ratings systems have acquired could be used as a tool to educate people and to encourage users to adopt a more sustainable lifestyle. However, the purpose of this dissertation is not to propose a new rating system to be implemented in adaptive reuse (although a small part of assessing the units participates in the regression measuring the adaptation's viability. However more information on this can be found in a following section). The methodological tool implemented in this dissertation aims to establish the criteria that influence the most successful, sustainability-led adaptation and this acts as the vehicle for stakeholders to evaluate future assets and to decide whether they should be adapted or not. In both cases, (implementing an upgraded rating system or applying regression



analysis) the informed involved stakeholder could draw lessons in terms of what is more efficient towards a sustainable development.

Considering the previous examination of current rating systems, there seems to be a lack of holistic approaches towards sustainability. Many researchers have validated that listed buildings are not credited enough for their authenticity and their direct connection to sustainable practices. AdaptSTAR was developed in Australia, and it includes physical, economic, functional, technological, social, legal and political criteria that aims to rate historical buildings that have been adaptively reused. Preserving a historic building within the scope of sustainability means bringing together principles from both fields of historic preservation and sustainable development (Conejos, Langston & Smith, 2011). Unfortunately, some organizations specializing in green building practices pay more attention to new constructions instead of investing in the retrofitting of the existing buildings. As Conejos, Langston and Smith (2011) support, it is essential that "green design and technologies are applied to the existing stock" in order to reach efficient levels of sustainability (Conejos, Langston and Smith, 2011, p.2).

The methodology of this system is similar to most rating systems where a checklist, or a check board, is used. In this case, the checklist contains design strategies for a buildings' adaptive reuse success. The criteria that are included in each category were carefully selected from the relevant literature which seems to have been the most appropriate approach. Although AdaptSTAR system is characterized by a certain complexity, the approach followed could lead to more concrete conclusions and to the creation of a more profound rating tool encouraging a wider consideration of adaptive reuse strategies. As Conejos, Langston and Smith (2011) conclude, "adaptive reuse of existing built heritage

and incorporation of adaptive reuse strategies in new buildings is economically, environmentally and socially responsible” (Conejos, Langston and Smith, 2011, p.8). Although this methodology revolves around the quantification of the criteria for the evaluation, it could be challenged whether this rating system could incorporate some more criteria. More specifically, some principles coming from the discipline of preservation could be added under the cultural category, and consequently, the rating system would be upgraded into a more all-rounded checklist that would lead to a successful marriage of sustainable and preservation practices.

### 2.3.1 Use of Indexes

Furthermore, Ding (2008) has developed a sustainability index, or algorithm, where “each criterion is measured in different units reflecting an appropriately matched methodology. Criteria can be weighted either individually or in groups to give preference to investor-centered or community-centered attitudes” (Ding, 2008, p.460). The “sustainability index”, as she named it, is calculated by the summation of all values  $[SI = \sum eW]$  where SI stands for sustainability index, e for value of the alternatives and W the weight of the criteria.

Langston (2008), on the other hand, has developed a system assessing the Adaptive Reuse Potentiality (ARP) which is based on the summation of different aspects of the building’s obsolescence. Useful life  $(Lu) = Lp / (1 + \sum O)$  where:  $Lp$  = physical life (years),  $O$  (1 to 7) = physical obsolescence, economic obsolescence, functional obsolescence, technological obsolescence, social obsolescence, legal obsolescence, political obsolescence (% as decimal  $pa$ ). The ARP System was first implemented and tested in Hong Kong, and it can be applied

to all building typologies and to different countries. Its function depends on the assessment of similar criteria used by the AdaptSTAR system to estimate the potential for a building's useful life through adaptive reuse. The potential for useful life could be translated to benefits concerning society, the economy and the environment. If a building scores more than 50% it has high adaptive reuse potential; if its score is between 20% and 50% then it has moderate potential, and if the score is up to 20% then the building has low adaptive reuse potential.

Similarly, Tan, Shen and Langston have established a formula aiming to quantify the factors leading the stakeholders to adaptively reuse industrial buildings. The formula is similar to the system mentioned earlier (Langston, 2008) and developed by Langston; the system involves the evaluation of the following categories of obsolescence: physical, economic, functional, technological, social, legal and political. The percentage reflecting the building's score is calculated through the development of an algorithm. An important aspect of this method is that the previous method developed by Langston was tested and evaluated leading to the system's evolution. This particular system was also tested and validated and as Langston (2008) noted: "The diversity of outcomes seemed reasonable and in all but a few cases an appropriate forecast was achieved". It is interesting to see how this system takes data and transforms it into a solid forecast. However, the approach is addressed to a certain discipline and it aims to investigate whether a building has a good chance of adaptively being reused. What it does fundamentally is to evaluate several types of obsolescence and to decide whether there is great potential in a possible future adaptation. The algorithm may seem complicated but it is thought to be a straight forward formula, a summation, using existing tangible data. A problem faced here is that

the ARP model seems to translate any situation into a hardcore index, maybe neglecting some soft notions. For example, a hypothetical scenario is when a building presents a degree of decay, and its maintenance seems a paradox in structural and economic terms. However, its demolition could create a major scar, metaphorically and literally, on the cultural and historic fabric. In this case, would the ARP model be the most appropriate method for evaluating this situation?

It is obvious that models like the ARP and its evolution aim to assess a unit before any construction works and can potentially give insights on redevelopment strategies. On the contrary, the proposed methodology of this dissertation deals with buildings that have been adaptively reused already, some of which did not succeed in maintaining the introduced use or did not prove to be good candidates for an adaptation. For example, the results from the ARP model can potentially contribute to decision making by evaluating a potential asset, whereas in the research proposed in this dissertation, the results and conclusions can contribute to decision making and strategy forming by evaluating first a number of existing adapted buildings. Consequently, both methodologies could pass knowledge and provide information on whether a potential asset will be successful in its reuse (the first one would justify the potentiality after evaluating the state of non-realised projects and the second one would justify the potentiality after statistically analyzing realized projects). The problem lies in the fact that the models previewed in this section depend on predictions with no evidence of existing realized projects, whereas regression analysis and econometrics make predictions based on statistics and on what exists in the built environment. Nonetheless, models like the ARP are very useful, and they could provide food for thought

concerning potential assets and potential criteria to be included in a regression analysis (like the one implemented for the purposes of this dissertation).

Another methodology that evaluates potential assets for redevelopment by close investigation and research, is the one followed by the Getty Institute. The Getty Institute engages in an assessment method that involves four stages and which is conducted by a team of experts (of different capacities) striving to create a process where “conditions, causative factors and risks are analyzed, characterized and prioritized” (Dardes, K.E et al, 1999).

The four stages of the assessment are the following:

- i. Preparation: information-gathering prior to the assessment
- ii. Information-gathering during the assessment: on-site observations and interviews
- iii. Collaborative analysis and strategies
- iv. Preparation of the assessment report

Getty’s methodology revolves around collecting information and conducting research which also serves the purpose of collecting and cataloguing. Each individual assessment concerns the examined asset and the strategies conducted follow this thinking as well. Getty embraces the uniqueness of each case study and acknowledges the importance of investigating each asset as a separate case study which is fundamental for this dissertation as well. A huge difference lies in the fact that the implemented methodology for this study returns tangible data for each case study and these are put together in order to draw conclusions connected to a large number of assets and not only with one unit. The returned tangible data can also help in tabulating the individual research and assessments.

### 2.3.2 Qualitative Methods

Some studies have been concentrating on adaptive reuse and what factors drive the stakeholders to reuse buildings existing in the built stock. Bullen and Love (Bullen & Love, 2011) look into these factors by investigating the literature that has been produced on adaptive reuse. Their findings showed that “lifestyle issues, changing perceptions of buildings and governmental incentives” (Bullen & Love, 2011, p.32) are maybe the most important factors influencing a potential adaptive reuse. They have also found that there are some obstacles apparent, such as maintenance costs, building regulations and inherent risk. Undoubtedly, their findings could be really useful for decision makers although, as they also note, a major limitation of their research is the fact that the conclusions are drawn upon theoretical research, while empirical research is crucial in establishing the criteria that influence adaptive reuse and its correlation with sustainable development.

Ijla and Broström (2015) followed a qualitative method, as well, to assess the impacts on adaptive reuse as perceived by local authorities and residents/users. Their objective was to establish a behavioral pattern among all involved parties in the respective development via interviews and non-participant observations. Their findings included users’ opinions around environmental and socio-economic matters. Although this qualitative research was conducted in specific areas, the picture from the findings reflects the situation existing in most parts of the world, and the users’ concerns are shared by other people’s experiences about the developments in their surroundings (more information on their findings can be found in a following section).

There are different ways of achieving different types of evaluation, as researchers show, both in terms of the key issues and the possible outcomes. Evaluations and constant re-evaluations should occur as all of the given market or site specifications change in order to connect the reuse of the existing stock with sustainable practices or analyze the benefits and the costs in different situations.

A possible tool is the concept of 'carrying capacity' which determines the maximum use of any place without causing negative effects on resources, the community, the economy, culture and the environment, as Nasser (2003) discussed. This method is mainly used in the tourism industry although it has drawbacks as the time-spans given are not obsolete and each situation can be altered depending on different variables each time (e.g. festivals, activities, events, etc), and this mostly works on hypothetical scenarios.

Another method scholars have been using is the contingent valuation survey which is based on an economic technique for the evaluation of non-market resources. It is mostly used in environmental preservation practices. The importance of such a technique lies in the fact that intangible aspects are measured when it comes to preserving cultural heritage (Bedate et al., 2004; Tuan & Navrud, 2008; Lee & Lee, 2015; Salazar & Marques, 2015).

### 2.3.3 Quantitative Methods

Through the willingness to pay model (WTP), which is an interesting approach that tries to involve the quantification of intangible issues, some variables concerning mostly individual preferences are seen in a tangible way that is widely understood for comparisons and evaluation That is to say: money.

Constantinides (2015), applauding this methodology, says it is a really useful concept when evaluating a building or a case study or when a comparison is to be made among different examples. Although the CV and WTP methods use intangible variables to be translated into quantitative terms, many opposers argue that once again everything seems to be paved in "excessive financial and economist approaches" (Bedate et al., 2004). Moreover, Salazar and Marques (2015) note that although cultural, social and political criteria participate in the evaluation process, they do not reflect any actual weight or significance in strategic social decisions as the return at the end of the day is measured in terms of economic benefits that depend on the diversity of the groups involved. For example, in measuring such benefits through the WTP method, in the research conducted by Tuan and Nevrud (2008), users and non-users, tourists and locals constituted the sample; this is crucial as diverse views were formed. During the evaluation process, people were asked the amount of money they were willing to pay to enter and to preserve 'My Son' historic site. The questions were addressed to travelers and locals respectively. A survey on their socio-demographic characteristics was also conducted. The estimates showed that the socio-economic background of the responders does not really affect people's decisions, but their perception of the specific place does. Therefore, ignorance could act as a great barrier when such surveys are conducted. Moreover, there were interesting results showing that in pricing policy, emphasis should be placed on visitors to solve the congestion problems. For example, a different pricing structure concerning different times of the year could be implemented, and a different pricing regime on visitor and local's fees would increase both revenues and facilitate



preservation. The case of 'My Son' site also showed that it is possible for social equity to be secured if specific decisions are made.

Of course, in the case of this dissertation, it would be unwise to apply the 'Willingness to Pay' model due to the difficulty to collect all information from a significant number of people for all the case studies. For this study, the methodology applied is a multiple regression analysis, for which a large number of observations is an advantage. For this reason, the WTP concept would not be efficient for such a study, although it could be applied for general areas; the results would showcase which regions tend to be more appealing to or appreciated more by people, hence receiving more attention and care for revitalization. It has been said that "sustainability is, by large an economic concept on which economists are clear and ecologists are muddled" (Worster, 1993). Maybe an explanation for this statement is that economists deal with tangible elements and it is a much more straight forward procedure when they quantify, compare and balance different assets. Henceforth, the willingness to pay concept will involve a process where abstract themes are quantified to reflect a certain value of money.

#### 2.3.4 Reflections

The shortage of some of the evaluation methods mentioned here does not imply that they are useless. On the contrary, there is much to praise about the fact that these methods act as useful tools for policy making (concerning pricing, permeability, revenue, management and site management depending on users and non-users' views and preferences).

After these observations over the multiple rating systems and the several evaluation and methodological tools, some thoughts had been formed. The rating systems that aimed to evaluate a building's sustainable, or in some cases green, performance seemed to focus on their efficiency in terms of energy performance and land use. Some other aspects covered in previous sections show that a significant amount of important aspirations is given less attention. Whereas some other evaluation tools discussed earlier cover more aspects, these tend to provide the degree of potential for a building to be adaptively reused. On the other hand, the willingness to pay concept is actually an efficient method to evaluate a building in terms of both the general public's perception and quantifying intangible matters such as the cultural value of a structure. Yet a concept like this one can only be applied to one unit each time. The several examples that this method was applied to include popular destinations or museum pieces that are easily identifiable. However, an important aspect of this dissertation is the inclusion and investigation of all kinds of buildings – museum pieces or plain and ordinary buildings. The latter type applies to the majority of countries and it would be interesting to see why some of these buildings gain more appreciation and are touted as good examples of a successful adaptation. Although there have been some studies dealing with the factors driving several stakeholders to reuse a building, there is not enough research establishing the variables that drive a successful reuse. This goal could be achieved by using statistical methodologies including multiple regression analysis and econometrics (in the case of predicting values and, consequently, human behavior).

**The aim of this dissertation is to investigate the variables that effectively lead to a successful adaptation.** The goal stated here will be

articulated by gathering information and variables concerning existing buildings that have been repurposed and by analyzing the data through multiple regressions. The variables under investigation were chosen after studying fundamental literature review that has been produced on adaptive reuse and sustainable development, as well as, after reviewing popular rating systems and evaluation tools for existing buildings. Henceforth, the qualitative approach by Bullen and Love (2011) was, in this case partly, applied in the way of choosing the variables to be investigated by the information collected from each case study and a quantitative approach was followed, following the paradigms from many researchers (Tan, Shen & Langston, 2008; Langston, 2008; Ding, 2008; Ijla & Broström, 2015). Thus, for the purposes of this dissertation, all necessary data was analyzed through the developed index for a successful reuse and through the regression in order to establish all the coefficients.

#### **2.4 Justification of why the Implemented Methodology was Selected**

The methodology was selected because regression analysis concludes with weighted, solid and well-justified realisations that illustrate the correlation between the selected variables with the adaptive reuse of a building and whether the adaptation is successful or not. Moreover, the regression analysis asks for the assessment of a large number of built examples which leads to better and more precise results within the framework of this research. Some examples of contrasting neighbors, highlighting the fact that it is possible for buildings to flourish through their reuse whether others are not proven to be successful, are presented in Appendix D.

The data collected for this dissertation is cross-sectional; the data concerns different built examples through a given timeframe. The objective of using cross-sectional data, by studying the cases separately, is to end up with information on the relationships among the different variables.

Certainly, the implemented methodology has been applied before on subjects revolving around sustainability. It has been used for the evaluation of a development's sustainable character by incorporating and investigating parameters such as economic growth, total resource consumption, labor hours, resource productivity (Bockermann et al 2005; Cirman et al, 2011; Fujita, 2009).

Moreover, in her research, Basha (2016) applies multiple regression analysis in order to establish the statistical correlation between social sustainability and adaptive reuse. The parameters revolved around cultural, aesthetical, social and human comfort contributions. Although the correlations in this study come after examining a small list of existing units, the result showed that the heritage significance is preserved while at the same time its sustainable behavior is ensured.

Briggs (2010), on the other hand, applies multiple regression analysis to evaluate the locational aspect of adaptive reuse concerning the textile mills in North Carolina. For his research, a directory was created and all case studies were examined leading to establishing the probability of the reuse of the abandoned shell. The proposed method and analysis could also be applied elsewhere, and it could be realized using a different kind of building typology or original use which is crucial for researches of this nature. Another important aspect of this research is that empirical results were produced depending on an existing situation that urged action. The variables included in the model revolved around demographics, land

uses, crime, income and poverty indexes, etc. This research, apart from showing the statistical importance for a probable reuse, indicated textile mills that still stand unused although the probability model showed that these have high probabilities of being adaptively reused. This could prove to be really useful for policy makers or stakeholders associated with the given mills, as they could be exploited in fruitful redevelopment projects and immediate investments.

Shiple's research (2000) on the other hand, sought to examine whether the designation of historic buildings is negatively correlated with property values via the use of regression analysis. His research revealed that historic designation holds no negative effect on property values. On the contrary, the examination showed that "the rate of sale among designated properties is as good or better than the ambient market trends". By the same token, Leichenko's (2001) paper suggests that historic preservation is positively correlated with high property values. The results were formulated after regression analysis was conducted with data contributions from Texas Cities.

Young (2009), through his paper, argues that an econometric regression analysis would be really helpful in calculating the relationship between adaptive reuse and displacements rates in Los Angeles. This is because it is evident that land use is hugely driven by development incentives and city regulations. The author of this paper highlights that the situation and the events in Los Angeles are "non-exclusive" (p.726) and therefore, the potential of the application of such a method is crucial to investigating gentrification and smart growth all over the United States. The results could encourage adaptive reuse and inform existing regulations and policies. He does not, however, experiment on a regression model

himself, but he does provide insights on what the variables could be in order to have an effect on future studies in L.A or the U.S in general.

Nevertheless, an econometric model and a **regression analysis have never been** developed/**applied** and conducted, respectively, **in order to establish the criteria that mostly affect a successful adaptive reuse, which is essentially the main objective of this dissertation.**

For the establishment of how successful a building is, it is important to establish the possible fields that this falls into. A reused building's success could lie entirely on the quality of the restoration works; on general public perception; on the popularity of the buildings new use; on the relationship of the active years of each use. For this study, the latter was chosen as some of the themes described here could be characterized as biased. On the contrary, a use's active years is a given variable existing in the real world and could be correlated effectively with several independent variables that would result in a hint of why some buildings flourish through their rehabilitation while others do not. This is to justify why the dependent variable 'y' is actually an index that establishes the degree of how successful a rehabilitation is.

#### How this section informs the project

- In seeking the variables affecting a successful reuse the most, a possible methodological tool was essential. The review of several assessment methods leads to the decision of using Multiple Linear Regression Analysis.
- The review of popular rating systems was fundamental for establishing an assessment system serving as a possible criterion (viability index) to be examined against the successful reuse of a unit.
- Sustainable behavior should not be confused with green behavior. Nevertheless, the environmental aspect remains important to investigate. Containing several criteria, it should be run against a successful reuse.

- The review of alternative methods for evaluation and prioritization highlight the essence to examine the case studies individually, embracing the embodied unique characteristics and value of each.

DESPO PARRPAS

### 3. LITERATURE REVIEW: IMPLEMENTED METHODOLOGY

#### 3.1 Simple Linear Regression Analysis and Introduction

The simple linear regression expresses the linear relationship between the dependent and the independent variables. The general form of the simple regression analysis is the following:

$$y_i = \beta_0 + \beta_1 x_i + u_i$$

which shows that: « $y$  and  $x$  are two variables, representing some population, and we are interested in “explaining  $y$  in terms of  $x$ ,” or in “studying how  $y$  varies with changes in  $x$ ” » (Wooldridge, 2012, p.22).

Concerning the simple linear regression model, the regression has only one regressor (the independent variable ' $x$ '), ' $y$ ' is the dependent variable and ' $i$ ' indicates each observation. The intercepts  $\beta_0$  and  $\beta_1$  are fundamental for the model:

- $\beta_1$  is the medium to show how powerful the relationship between ' $y$ ' and ' $x$ ' is and the degree to which the variable ' $y$ ' will change with a possible change in the value in ' $x$ '. To calculate the slope for  $\beta_1$ , a partial derivative is used ( $\beta_1 = \frac{\partial y_i}{\partial x_i}$ ).
- $\beta_0$  is the constant term (the  $y$ -intercept), and it is valuable as it absorbs any bias that was not taken into account for the model. The elimination of any biases is important because the introduction of a constant leads to a zero mean for the residuals. The constant should be included because if the fitted line of the model does not intercept with the origin, then the regression coefficients are biased.



' $u_i$ ', on the other hand, is the error of the regression and it includes all the variables that were not included in the calculations (unobservable factors) and that, along with the variable ' $x$ ', have an effect on the dependent variable ' $y$ '. To sum,  $y_i$  and  $x_i$  are observable and  $\beta_0$  and  $\beta_1$  are unknown and to be estimated. ' $\hat{\beta}_0$ ' and ' $\hat{\beta}_1$ ' are the intercept estimates or estimated constants.

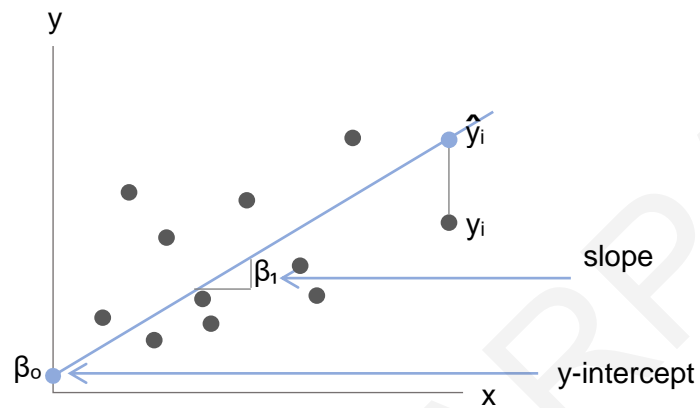


Fig. 4: Graph of the Simple Linear Regression

### 3.2 The Multiple Linear Regression Analysis

The multiple linear regression analysis is based on the simple regression analysis, and it has the following general form:

$$y_i = \beta_0 + \beta_1 x_{1i} + \dots + \beta_k x_{ki} + u_i$$

where ' $y$ ' is the dependent variable and it is explained by all ' $x$ ' s whereas ' $i$ ' indicates each observation. In contrast to the simple linear regression model, the regression does not have only one regressor but has ' $K$ ' regressors/ independent variables.

As far as the data structures are concerned, the most prominent ones used are the following: cross sectional, time series data, pooled cross sections and panel data<sup>7</sup>. For this dissertation, the data structure that is followed is the cross sectional; the sample consists of several observations over different entities (built units) within a certain time frame. Moreover, all data is collected randomly for cases within the premises of Cyprus, but attention was paid to examining dissimilar cases (to avoid local linear correlation). In addition, the data used for this project was non-experimental, meaning it was collected through observations and not by experiments collected in laboratories. Non-experimental data are also called observational or retrospective.

After making an introduction to multiple linear regression analysis, it is evident that mathematical statistics are the backbone of this dissertation's analysis. However, when a research's objective is to check human behavior or to make predictions, (like for example, in the project's case, if we check the drivers behind

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<sup>7</sup> The cross-sectional data concern observations over different variable values, time series data concern observations over the same variable values at different points of time, pooled cross sections are random samples for individual variable values at different points of time and the panel data is the structure combining cross sectional data and time series.

the decision whether to reuse an older building or not), then this process falls under the scope of econometrics although the methodology is borrowed, again, from statistics. Econometrics revolves around forecasts by analyzing economic data. However, other realms (e.g. psychology, sociology) are using econometrics to study human behavior or to make predictions relevant to their respective subjects and observations.

#### How this section informs the project

- The followed methodology is established and overviewed, as well as the essence for an extended, and diverse sample.
- The estimated constants show the correlation between a dependent variable and the independent ones, which is the means to establish the determinants of a successful adaptive reuse, and answers the dissertation's overarching question.

### 3.3 Statistical Tests and Meaning

As mentioned above, **the aim of this dissertation is to investigate the criteria (independent variables 'x's) that effectively lead to a successful adaptation** (in a sense, the dependent variable 'y'). Since  $\beta_1$  is the medium to show how powerful the relationship between 'y' and 'x' is, the regression analysis will establish the variables that are more important statistically for a successful sustainable adaptive reuse.

In order to establish whether the included variables hold a statistical significance, statistical tests are crucial to reject or accept a hypothesis. "Classical hypothesis testing, which requires specifying a null hypothesis, an alternative hypothesis, and a significance level, is carried out by comparing a test statistic to a critical value. Alternatively, a  $p$ -value can be computed that allows us to carry out a test at any significance level" (Wooldridge, 2012, p.790).

The usual regression null hypothesis is  $H_0: \beta_1 = 0$  and  $H_1: \beta_1 \neq 0$ .

For this dissertation, testing the null hypothesis will effectively establish whether a variable holds minor statistical importance and whether it could be omitted from the model. Therefore, what is important to investigate here is the null hypothesis  $H_0: \beta_k = 0$  where,  $k$  the indicator for the respective independent variable.

To reject the hypothesis  $H_0$  the critical value should be larger than the  $p$ -value ( $p.v$ ). In this project, the significance level was set to  $\alpha\%=0.05$  which means that each time a statistical test is performed to test a hypothesis, this will be rejected if the  $p$ -value of each coefficient is less than 0.05.

When the statistical test is performed and the null hypothesis is not rejected, it means that the variable for which the test is performed is statistically significant in explaining the dependent variable 'y' (or in this dissertation's case 'DoSAR'). Of course, the significance level implies that there is a 5% chance of falsely rejecting a true null hypothesis (type I error) or incorrectly accepting a false null hypothesis (type II error). Essentially, the significance level defines the sensitivity of the test. For this reason, there are cases where this possibility is minimized in order to avoid these errors, such as in determining medicine dosages where the significance level is set as low as 1%<sup>8</sup>. As far as this dissertation is concerned, the significance level was set to 5% in order to be more conservative for type I errors. More information, on the results and the statistical tests themselves, is included in the respective chapter.

#### How this section informs the project

- The statistical tests are essential as they provide information on whether an independent variable is statistically important, and if not, whether it can be omitted from the model entirely. This process is to be followed for all independent variables in order for the most reliable/efficient model to be established, and therefore, to be implemented in future regression runs.

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<sup>8</sup> Reference: Hypothesis Testing Tutorials, PennState: Eberly College of Science

## 4. LITERATURE REVIEW: ADAPTIVE REUSE

Considering the project itself and the question of how a successful reuse is perceived, the quest of the criteria affecting the most a successful adaptive reuse is one obstacle that needs to be overcome. Also, as adaptive reuse is considered to be a practice that falls under sustainable development for this dissertation, this section elaborates the reason the analysis, and the criteria included in the multiple linear analysis, involve subjects from the prongs of sustainable development.

### **4.1 Adaptive Reuse Seen as a Proponent of a Sustainability-Driven Development**

It is evident that adaptive reuse can benefit both local communities and the existing built fabric. It has positive attributes to 1. socio-economic, 2. ecological-environmental and 3. cultural matters, and since these are considered to constitute the pillars of sustainability<sup>9</sup>, adaptive reuse can potentially fall under its scope as well.

“Core social values such as pride, memory and participation can all be enhanced by careful consideration of adaptive reuse strategies” (ODASA, 2014, p.3). What ODASA highlights is that adaptive reuse, in connection with the international charters praising the value of authenticity, contributes to maintaining the character and the vitality of the built fabric. Also, adaptive reuse as a practice involves contemporary means and approaches, and this enhances the inherited value and helps to build up the heritage that is being left for the future generations.

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<sup>9</sup> More on the talk around sustainability can be found in Chapter 5.

By connecting the new version of the building to its original character and the embedded narrative, the sense of place can be retained and certain values are conserved (such as social, cultural, historical). Important links to the past and significant memories are maintained and historical or cultural landmarks are safeguarded.

Moreover, "Historic Preservation, in addition to being the ultimate form of recycling, plays a crucial role in preserving regional flavor while minimizing impacts on the environment" (Ewald, 2009). Given that historic preservation is a great proponent of adaptive reuse, this excerpt highlights the main argument of why adaptive reuse is considered to be a sustainable practice. Undoubtedly, recycling participates in having an attitude towards a more sustainable way of living by taking more viable paths when it comes to materials and sources, as well as the grey energy associated with these.

The points mentioned above have a direct impact on environmental, social and cultural matters but at the same time, they can have an indirect impact on economic ones as well. For example, adaptive reuse can produce new visitor attractions (local or tourist) which affect economic growth. Hence, economic benefits could be noted at a range of scales (owner, community, urban scale). On the other hand, there are some barriers that sometimes impose constraints on adaptive reuse that include costs (performance or maintenance costs) and the lack of expertise in know-how skills.

Without a doubt, financing is another key player in adaptive reuse, "but financial and economic design is more than costing – it should be the subject of creative thinking. This can take the form of research into different funding models and partnerships and into how a project becomes viable" (ODASA, 2014, p.6).

Bullen also argues that the decision as to whether a building should be adapted or not can depend on sound economic opportunities.

#### **4.2 Life Cycle and the Notion of Futurity in Adaptive Reuse**

As far as the notion of futurity is concerned, Mohamed and Alauddin (2016) argue that adaptive reuse is indeed a sustainable practice as the continuous life cycle of a building is ensured because the building of interest is prevented from destruction. The life cycle is connected with economic and environmental matters as well. Firstly, the environmental load is lowered through the potential reuse of existing buildings, and this is connected with the environmental footprint and the grey energy of the buildings. These matters should not be underrated when weighing the pros and cons of adaptively reusing an asset. The building's grey energy is a crucial element as it revolves around energy consumption related to the transportations of materials and resources, construction or demolition works and the embodied energy of the materials. In addition, with regards to the environment, other benefits from adaptively reusing buildings include: decrease of carbon emissions and pollution as opposed to new constructions, minimization of demolition waste and reuse of contained energy, all of which have a positive effect on the affected communities (Mohamed & Alauddin, 2016; Bullen, 2007; ODASA, 2014; Ijla & Broström, 2015). Hence, the practice of adaptive reuse should be cherished and applied more thoroughly as this corresponds to the notion of recycling in the talk around sustainability.

Upon this, Merlino and Steinbrueck (2008) argue that people should pay more attention to the building stock since the realms of restoration and adaptive reuse fall into and coexist with the practice of recycling. Michael



Braungart and William McDonough also praise this in their work promoting the 'cradle-to-cradle' philosophy and their ideas of repurposing built/manufactured elements.

Furthermore, Davenport (2012) argues that the adaptive reuse of the existing building stock can have a beneficial outcome on the local communities, the economy, and a region's culture and can contribute to the achievement of a sustainable behavior in terms of how the precepts of the past could be transferred to the future. Along the same lines, Wilkinson and Reed (2008) discuss how the adaptation and reuse of an existing building can sometimes be faster and more economical than the demolition of an old building followed by the erection of a new construction.

#### **4.3 Futurity and the connection to sustainability**

Concerning the essence of preserving common assets and the importance of futurity within the framework of protecting the existing stock, the Declaration of Amsterdam (1975) states that the Congress emphasizes "the following basic considerations:"

"a. Apart from its priceless cultural value, Europe's architectural heritage gives to her peoples the consciousness of their common history and common future. Its preservation is, therefore, a matter of vital importance.

(...)

c. Since these treasures are the joint possession of all the peoples of Europe, they have a joint responsibility to protect them against the growing dangers with which they are threatened - neglect and

decay, deliberate demolition, incongruous new construction and excessive traffic.

(...)

i. The architectural heritage will survive only if it is appreciated by the public and in particular by the younger generation. Educational programmes for all ages should, therefore, give increased attention to this subject.”

What is evident here is that, firstly, our “common future” also holds an important role in the talk on sustainability; “Our Common Future” is the name of the publication of the United Nations, also known as the Brundtland Report, which was formulated in order to set “a global agenda for change” (World Commission on Environment and Development (WCED). 1987. *Our Common Future*, p.2.). The report also provides a definition which is as follows: “Sustainability is to meet the needs of the present without compromising the ability of future generations to meet their own needs.” The notion of futurity and the inclusion of the future generations are also mentioned in the last excerpt provided above, as well as in some other sections in other declarations. For example, in the ICOMOS Charter (1999) it is mentioned that:

“Governments and responsible authorities must recognize the right of all communities to maintain their living traditions, to protect these through all available legislative, administrative and financial means and to hand them down to future generations.”

and, similarly, in the Burra Charter (1999) it is mentioned that:

“These places of cultural significance must be conserved for present and future generations.”

Moreover, what is also mentioned in the charters is the need to follow approaches that correspond to the contemporary life-style. This is also connected with the fact that every case study, like all different eras, is unique and therefore, prioritizing is crucial. The model applied for the purposes of this dissertation provides the possibility to insert all of the building's/asset's relevant information separately, which is then processed all together with the regression analysis.

Another important aspect of the selected method of assessment is that the model includes variables deriving from all of the pillars of sustainability (as set by scholars and as they unfold in a following section). Also, when all data is collected from real units that have been adaptively reused, the results will show and justify that, in practice, there are some variables that stand out in terms of what is most important when adapting obsolete units within the built fabric.

#### **4.4 Reflections**

To sum, via adaptively reusing buildings, their useful life is extended, and also, their sustainable nature is also strengthened. Bullen suggests that we should think of old buildings as a reusable source and not as a product, because most products are consumed and then they become waste (Bullen, 2007). At this point, it is important that some fundamental issues concerning this dissertation's thesis are noted. By supporting and encouraging the practice of adaptive reuse and by thinking of the existing built heritage as an asset or a socio-cultural capital, this does not reject the idea of constructing new buildings. On the contrary, in terms of performance, the new constructions have a serious advantage over the adapted units (Bullen, 2007; Strumillo, 2016, etc). Socio-economic growth and new technological means will always demand (and open the horizons for) new forms

and new facilities to accommodate the changing regimes. This dissertation also argues that new buildings will still be essential for satisfying changing lifestyles and trends, as well as for accommodating the ever increasing number of human needs. The developing strategies concerning either new constructions or reused units should accommodate sustainability. What this means fundamentally is that they should take into consideration the parameters that would contribute to good performance, high standards and efficiency in all aspects towards a viable future. This leads to the necessity that each case is assessed individually because what works in some cases could be a wrong approach in others.

Rypkema (2005) argues that downtowns are reclaiming their identity as the heart of the city and this is why one should depend on the existing historic context instead of creating a new one. Of course, this is not entirely true as changing human needs and the changing lifestyle ask for new infrastructure, new forms and new functions to be introduced within the existing built fabric. Not all buildings are good candidates to be adapted to a specific program. A good example that reflects this assumption is the hypothetical scenario where an old building is in good condition and its configuration provides flexibility for the building to be adapted. In this case, it will be easy and quick to realize the conversion, and this will save time and money reflecting good productivity. On the other hand, as Bullen (2004) mentions, "there will be cases where old buildings have reached such an advanced state of despair that makes their adaptation uneconomical or their internal structural layout may be inappropriate for any change of use". Not to mention the cultural significance of the original structure that, in a case like this, would be altered at such a level in order to meet the standards of the new conditions that the authenticity would be lost and the charters' guidelines would be overlooked.

The example above involves a process of decision making based on the evaluation of several different quantities. A lot has been appearing throughout this text concerning weighing and evaluating different quantities when it comes to both adaptive reuse and sustainable development.

Adaptive reuse affects socio-economic, environmental and cultural matters. At the same time, these are important ingredients to take into consideration when building a case aimed at a sustainable, viable future. Consequently, adaptive reuse as a practice could potentially have a sustainable character if viable ingredients participated in the projects' decision-making process.

However, how is sustainability defined and why did the criteria for this dissertation's model reflect the lessons learned from discussing and evaluating sustainability? Up to this chapter, there have been some references to sustainability and its pillars with no expansion. Indirectly, some clues have been given concerning the umbrella of sustainability, as well as how its ingredients are apparent within the practice of adaptive reuse towards a viable future. The following section will discuss sustainability itself and how the criteria participating

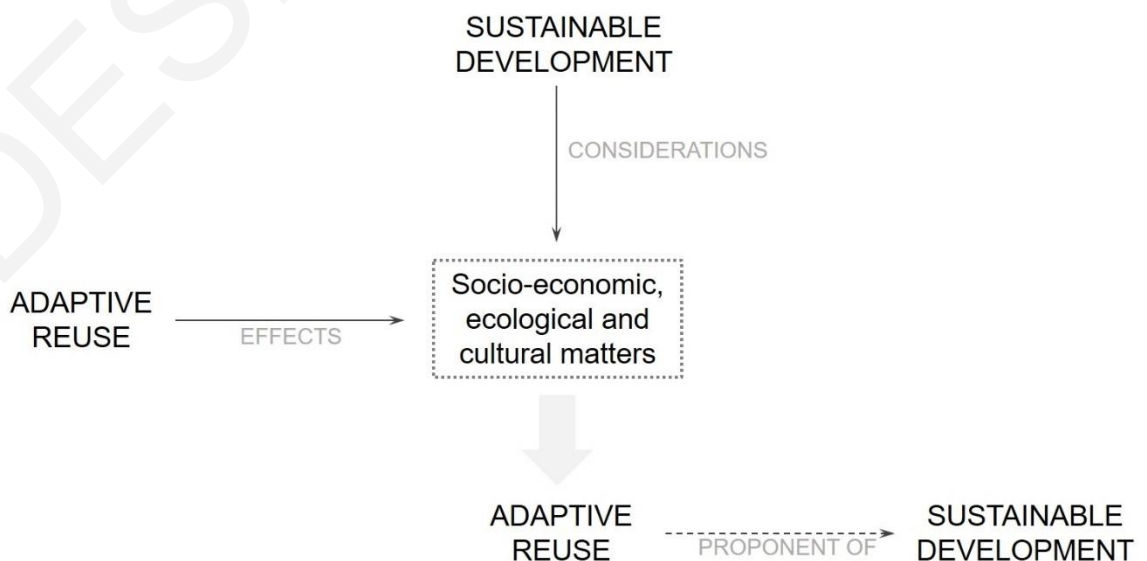


Fig. 5: Adaptive Reuse as a Successful Proponent of Sustainable Development

in the dissertation's analysis are directly connected with sustainable development, that is as a viable process. Furthermore, after all the criteria are established and discussed, the project itself can be introduced along with all the results and information after running the model and after processing all the collected data.

How this section informs the project

- Adaptive reuse is largely driven by sustainable principles and this should be reflected in the dissertation's model.
- The **notion of futurity** which exists in the notion of sustainability is a **crucial element in defining a successful reuse**; if a unit continues to exist and operate within the built fabric, its life and usefulness are extended, which is considered to be a successful proponent of adaptive reuse, or an indication of its spatiotemporal success.

## 5. LITERATURE REVIEW: SUSTAINABLE DEVELOPMENT & CRITERIA

### 5.1 The Pillars of Sustainability

Sustainability holds a multi-dimensional character; most scholars connect sustainability with the tripod of economics, the environment/ecology and society. Some scholars like Cooper, Kohler and Ding (Cooper, 1999; Kohler, 1999; Ding, 2008), also highlight that sustainability's complexity can only be correlated with a multi-dimensional assessment and this is something that this dissertation also promotes. Furthermore, some scholars like Kohler (1999) introduce the cultural aspect to measuring sustainability. In Kohler's work, it is noted that the design of a building should also be preserved and maintained as it is something that holds an important role in the establishment of its identity. This highlights the necessity of bringing cultural matters into discussions surrounding sustainability.

Rypkema (2005) also suggests that the three pillars (environment, economy and society) should be enhanced with the element of culture as it is not wise to talk about smart growth without including an important actor: historic preservation. He quotes the American Development Bank: "As the international experience has demonstrated, the protection of cultural heritage is important, especially in the context of the globalization phenomena, as an instrument to promote sustainable development strongly based on local traditions and community resources" (Rypkema, 2005, p.8).

Merlino and Steinbrueck (2008) also include the notion of cultural sustainability, correlating it with restoration and reuse. Historical buildings enclose both personal and collective memories, bringing along traces of uses and cultural elements (Merlino & Steinbrueck, 2008). It is essential for all of these aspects to

be revealed as they provide different scopes through which sustainability could be explored.

The concept of heritage is not just what people inherit; it belongs to a much larger discussion/dimension mostly with social meaning. Vecco (2010) explains that the process for protecting is shifted from the 'object logic' to reflect a 'subjective logic', and this shift is mostly connected to historical monuments. The international charters were upgraded in order to include some of the discussion around heritage. However, by the term heritage they do not refer solely to the historic structures in and of themselves. Rather, they identify the structures as an integral part of a whole environment of systems, as part of given relationships and dynamics with both their built surroundings and their socio-economic contexts. This implies that there are intangible values, or variables that derive from the notion of heritage. Memory is another important aspect mentioned in the Krakow Charter (2000), where it is noted that memory encompasses a bearer of values, "human deeds and thoughts, associated with historic time-line". Therefore, there should be a capacity of the object existing to interact with memory.

Older buildings, and especially those falling under the category of vernacular architecture due to their special features and wise design, work as an anchor to a region's authenticity, providing stability that encourages a constant relation to the local culture and character. They are proof of a moment in history, and at the same time, they symbolize continuity as they live to be transmitted to the future and to connect ancestors to their successors, and past times to contemporary trends. The notions of continuity, stabilization and safe-keeping arising here could be applied to – and connected with – conversations on the notion of sustainability.



This dissertation takes into consideration and incorporates different aspects driven by sustainability and sustainable thinking revolving around adaptive reuse. The following section discusses how the different criteria (independent variables) of the model correlate with the literature deriving from the talk on sustainability.

How this section informs the project

- The noble meaning of sustainability should be reflected in the model. The viable character of the investigated units should exist as a criterion, and run against the possible success of adaptive reuse.
- The participating pillars reflecting the viable character are the environment, historical and cultural values, maintenance, and socioeconomic matters/well-being.

## 5.2 Hard Data of The Assessment

### 5.2.1 The Realm of Economics

Some variables from the realm of economics participated in the data collection and the analysis itself in order to evaluate economic criteria and the effect these have on adaptively reused buildings and their success. The independent variables taking part in the model of this dissertation that are connected to economics are: **annual gross domestic product growth (%)** at the time of the adaptation works, the **real cost** and the **price index of the materials** at the time, all with the base year set to 2007.

Concerning the first, economic growth in contemporary times seems to hold an integral role in decision making regarding development or redevelopment projects. Although economic growth is really important to a lot of stakeholders and policy makers, it is not the only key issue arising when it comes to managing and giving new purposes to historic sites. Economic, social, environmental and cultural factors affecting or coming from sustainable development policies applied to the existing built stock are, and should be, taken into consideration in order to compose an interesting spectrum of diverse qualities. For this reason, economic growth, as a variable, was an important aspect to be investigated for the purposes of this dissertation in order to establish whether it holds an important role in successful sustainable adaptively reused assets.

On the matter of how important economics are in sustainable development, economics seem to lead the discussion, as Worster discusses (1999), which makes sense considering that economics can provide measurable and concrete data when comparing case studies and when performing cost-benefit analysis, or even

when comparing different quantities coming from different groups of entities. The existence of such different entities reflects the previous talk on the complex nature of sustainability and the involved realms in defining or even describing it.

Bullen (2004), used questionnaires to look into the owners' thoughts and whereabouts on adapting their units. In addition, he circulated questionnaires among other entities and established that the major drive to achieve sustainable behavior in a building comes from the buildings' owners. His findings also verified that owners think of the economic criteria more and economic factors make them skeptical; their doubts on whether to adapt their building into a new function focused on the economic criteria, partially putting aside the social, cultural and environmental issues.

Concerning this matter, Bell (2011) questions the possibility for a balance between the different aspects of sustainability, or even self-efficiency, to be achieved due to the influence of capitalism in the contemporary world. Thus, he argues that capitalism has "unsustainable consequences". He quotes Aristotle with the following: "the mistake is to confuse the unlimited desire for life with the desire for the good life. As a result of this confusion one attempts to satisfy an unlimited desire by means of limited, finite goods, and hence one ultimately ends up failing to achieve self-sufficiency and simply ends up on a blind, ceaseless search for more and more" (Aristotle, *The Politics*).

Going on with sustainable development and concerning cost- related matters, Stas (2007), after applying a financial feasibility study, argues that there are no general rules that apply when comparing the costs between a brownfield development over the exploitation of an existing building. This means that no generalizations were made after conducting cost-benefit analysis; several assets

(both existing and new constructions) resulted in different outcomes, although the cases where existing buildings were reused hold a minor advantage.

Contrarily, Bullen and Kucik (2007) strongly believe that the restoration of older buildings sometimes costs more than a new development in the micro-scale (concerning the cost-benefit analysis for a single unit that is being repurposed), although in the macro-scale (meaning the effects on the surrounding context) this issue is leveled if the waste, and the existing capital which is connected to it, are taken into consideration. They also talk about other forms of capital (the social and cultural) contributing to the equation when calculating costs. These are related with more intangible matters through the realm of cultural heritage; the historical buildings provide a unique opportunity to the new users to come in touch with the ambiance the past times offer, as well as to address the general context differently while unraveling the indigenous characteristics. This interesting process is embraced by this dissertation. The assessment of the case studies would not be able to go through, and the methodology could not be implemented without taking into account the points mentioned above, or how these contribute to the social aspect of sustainability.

It is important to acknowledge here that the behavior towards a possible sustainable reuse or the decision to even restore a building could be defined and driven by the contemporary trends resulting from a given developing society or a given progressing economy. Bullen and Kucik (2007) also contend that the program, the use, or even the restoration itself could be subject to change if it is decided that more benefits towards a sustainable development could be promoted which is true considering that even the International Charters approve of changes when serving the new purpose of the building and the changing needs of society.

### 5.2.2 Tourism as an Economic Driving Force for Redevelopment

Undeniably, tourism can act as a major driving force operating and affecting a country's economy hugely, especially when it is tertiary (which means the economy depends on the provision of services like the small islands of Cyprus and Malta). For this reason, many scholars (Dong et al., 2011; Kim et al., 2007, etc) argue that an alternative form of tourism is essential for realizing conservation and development goals, safeguarding social equity, cultural values and minimizing harmful environmental outcomes. Finally, Nasser (2003) notes that we should consider "the idea of sustainability as an overarching framework for managing tourism in heritage places based on the balance between sociocultural needs, economic gain, and the protection of the environment".

Of course, it is obvious that when a place is being managed, preserved and reused, in order to draw people in the form of tourism, the norms must be inverted in order to serve its commercial goals, aim for more publicity and achieve a fruitful promotion. On the other hand, the revenues that could be potentially created through a tourist-oriented redevelopment could be used to sustain and conserve the given environment of heritage value. Although there are some key points made here, the commercial interests and strategies should never distort cultural elements or values and the space syntax, or the spatial features, should not be affected in order to 'create' a more consumable landscape.

A tourism-oriented development can certainly help the general economy, but at the same time, it can harm the local businesses as owners or managers cannot keep up with the rising progress and the economic pressure of a universal marketplace. The retail trades are altered, and new services are needed in order to support the visitors' arrival, which could enhance the negative effects of

crowdedness and congestion. Although these services could bring along job openings which could support the locals, they could distort the original local character of the area being far apart of what the local population would have. These kinds of approaches, when it comes to the redevelopment in historic parts has a major negative outcome for locals who end up feeling like outsiders; is this really what a sustainable future is about?

Tourism can be a creative force for redevelopment and could benefit the general economy revolving around sustainable aspirations. It helps in multiple fields such as revenue and job-opening and enhances cultural preservation. At the same time, contrarily, sometimes the market becomes more competitive which the locals cannot absorb and compete. Frequently, franchise businesses appear, straining the local small businesses. Therefore, the question to ask is what the preferable path should be. Maybe the answer is to follow a dynamic procedure. The 'balance sheet' should be re-evaluated constantly according to each case study and according to the priorities promoted through each.

### 5.2.3 Marketing and Commercialization

"Sustainable Culture has not only gone mainstream, it runs the risk of being turned into a form of decoration" –A. Parr (2009)

Sustainability has grown to become a reference point for different fields concerning a wide spectrum of notions, and although it has been given many definitions, there is a difficulty in grasping its true meaning as it is linked to both qualitative and quantitative contributions.

An interesting, yet questionable, aspect of sustainability is the potential of its connection with the market industry, production and consumption. A case in

point here would be the practice of adaptive reuse and its automatic correlation, by some, with sustainable development. The question to ask would be how noble this intention is. Sometimes good intentions are canceled by other cultural and political reasons that fall into today's contemporary lifestyle and state of politics. Worster (1993) underlines that sustainability should not be used as a catch phrase that lacks deep meaning, as the actions towards a sustainable development could end up narrow.

If adaptive reuse is commercialized to serve corporate development, its noble desire could be distorted. Socially responsible investors, as Parr discusses "follow an investment process that considers the social and environmental consequences of investment, both positive and negative within the context of rigorous financial analysis". In reality, involved stakeholders sometimes use fancy and mainstream phraseology in order to draw capital and investors. There is a tendency to exploit and overuse words as the medium for marketing when the main objective is to satisfy personal interests. Fairly enough, this phenomenon does not have to do with corruption, but sometimes it is connected with insufficient knowledge of what sustainable development is and that it is not measured by some check-boxes on a check list.

In reality, the true meaning of sustainability should be grasped in order for the redevelopment of the existing built fabric to gain true substance. For example, in old city parts around the world, the context of Cyprus included, a lot of individuals have chosen to repurpose old buildings through a more informal and silent process. This kind of adaptive reuse is proven to be successful in a diverse spectrum: the social life is embraced; the local economy is benefited; the elements of locality and the appreciation of the sense of community are central;

the efforts towards the deterioration of the urban sprawl are enhanced; walkability, as opposed to car use, is promoted. These are seen as more ethical goals; adaptive reuse is articulated based on contemporary lifestyle and users' preferences, while the significance of the community values that have historically characterized the area are also highlighted. Therefore, cultural, historical, economic and environmental values are maintained and transmitted for a longer period.

A specific example of what is described here is the redevelopment of the area around Courage Anchor Brewery in London, right next to Tower Bridge where land value is outrageously high. The whole complex was refurbished and formal or informal actions were implemented. The redevelopment project, although it took some time to be realized because of conflicts of interest with regards to economic growth, is considered by the British authorities to be really successful as it is environmentally friendly, close to community traditions, and economically and socially thorough. An individual can really sense this is a win-win action for both locals and visitors.

#### 5.2.4 Reflections

The approaches chosen should include unbiased partnerships for redevelopments to be economically viable, environmentally sensitive and culturally appropriate. If heritage is defined and driven by the consumer, then insufficient education and lack of knowledge could be great rivals of re-development projects. As Nasser (2003) discusses, the uninformed viewer should be educated to be able to perceive what is fake. Nasser's note brings to mind the points made by the



international charters that highlight the importance of proper education. This could be well applied in both fields of sustainability and preservation.

In addition to the exploitation or the misinterpretation of the notion of sustainability, Pyburn (2005) states an ironic aspect of sustainability. The talk around sustainability emerged in need of renewable resources, but sometimes the built environment is not seen as such. By following this mode of thinking, honest intentions *could* be articulated if important aspects were not marginalized and the existing built stock was assessed regarding the following as well:

- i. Energy issues (e.g. the embodied energy and the grey energy that is often forgotten as Kresevic (2015) also states),
- ii. Continuation of the urban form and contaminating urban sprawl (this is connected with the previous talk on popular rating systems),
- iii. Evaluation and maintaining of the unique characteristics of each place connecting them with people's history, lifestyle and development

The last point pertains fully to the soft values participating in a successful adaptive reuse and will be discussed in the next section. Concerning points one and two, some aspects have been dealt with through the development of the viability index and the regression model, as well. The energy issues along with other actions towards the environment have been included in a special category within the Viability Index. In addition, the viability of a possible asset is seen through the lens of a wider context as well, and not only through the unit's own size and configuration.

#### How this section informs the project

- Economic growth can spark development strategies, and therefore, the following criteria should be examined against the possibility for successful adaptations:
  - GDP Growth Rate to examine whether economic growth positively affects an adaptation
  - Price Index of the Construction materials to examine whether the market affects an adaptation
  - Real Cost of a project to examine the capital's power over a potential project
  - Location, since in the world of real estate it is a key player in price fluctuations.

DESPO PARRIS

### 5.3 Soft Data of The Assessment

Some variables concerning soft, or qualitative, data were collected and translated in binary form in order for them to become quantified and measurable. The quantification of such data could help to establish the direct effect these have on adapted units. **Some of the data participating in the model that are connected to soft data are:** historical background, respect towards the authentic unit's elements, friendly coexistence of old and new elements, maintaining of the area's original character, actions towards the users' well-being, and maintaining of the social status quo.

#### 5.3.1 Heritage Assets: Vernacular Buildings

The realization that the existing built stock should also be assessed regarding the narrative and the traces of history, and the impact these elements have on determining a place's value lead to an important question: which heritage assets are more valuable, and thus more important, to adaptively reuse in the name of sustainability?

To begin with, vernacular architecture can be connected with sustainability as it results from empirical knowledge derived from a region's indigenous and specific characteristics. Vernacular buildings were designed with wisdom (or strategically) based on observations and conclusions generated from the uniqueness of each geographical place. For this reason, the existing building stock consisting of vernacular buildings could be a virtuous asset for physical exploitation regarding its reuse. Exemplary cases should be documented and assessed because those establishments could provide insights on a design process

characterized by sustainable principles (in terms of the urban sprawl, use of resources and materials, bioclimatic strategies, etc). Such a building stock incorporates validated successful paradigms of architectural manifestations, which have stood the test of time and still stand as a possible resource for adaptation to be transferred to today's lifestyle.

It would be interesting to investigate whether vernacular architecture (as an independent variable for this dissertation's model), is statistically important in affecting a reused building's success. Deciding which buildings make the cut as vernacular, however, is another important task. Buildings constructed at a more distant point in time characterized by traditional techniques and physical configuration are set as vernacular. However, the same goes for contemporary buildings, the design of which takes into consideration – and was based on – local bioclimatic strategies, traditional typologies, materials or techniques. This aspect of vernacular architecture exists in the dissertation's model in several ways. Some characteristics that were examined for each case study were: the application of bioclimatic strategies, the original materiality (as a medium of vernacular expression), and the coexistence with, and codependence on, other neighborhood units.

### 5.3.2 Heritage Assets: Modern Buildings

It has been said that vernacular architecture and techniques underlie sustainable concepts (Pyla, 2008; Cavaggioni, 2015) but this does not mean that other architectural styles and typologies are not worth preserving if seen through the scope of sustainable culture. A vital question is whether buildings from modern times should be considered appropriate candidates for maintaining and for being

adaptively reused. Ochsendorf (2015) characterizes modern architecture as experimental in many ways, mainly in its materiality. Consequently, he argues that most of its legacy is not worth maintaining because of material failures. To oppose this view, a multidisciplinary analysis in economic and social levels could be conducted; if an older (or traditional) structure no longer expresses significant values and holds no beneficial potential for reuse, then it does not hold an advantage over a modernistic, concrete-made structure for a successful reuse. Volberg (2015) raises some interesting thoughts on how maintaining and restoring a modern residential development can actually make a lot of significant contributions to both sustainable living and social values. Concrete itself, although widely considered as a lacking material, could be seen through other lenses which regard it with high social, cultural and historical significance worth protecting. For example, concrete could be seen in terms of how it reflects the society it was developed in, how it represents the social status of its era, or how it was used to make political statements.

When it comes to the decision of what building to adaptively reuse and to preserve, decision makers should not stay caged in the concepts that the only sustainable structure to keep is a traditional one, neither should they reject buildings that were inherited from certain eras allowing clichés to take control. Every case should be assessed specifically in its uniqueness, meaning that it should be dealt with sensitivity towards the site-specific characteristics, as was commented upon by Eliopoulou and Santamouris (2015). Nevertheless, Parr, when talking about new developments in Maine and how each of them is assessed in order to establish involved costs, revenues and the impact on the environment following the Maine legislation, she highlights that “the assessment is specific to

the situation of each town and its community, and yet the goals are universalized around a principle of sustainable growth” (Parr, 2009, p.27).

### 5.3.3 Heritage Assets: Preservation Ethics

By the same token, if a project shows signs of new, unexpected sustainable culture characteristics but the conventional ways are proven insufficient, then unconventional strategies and techniques should be considered without intervening with the building values (Elipoulou & Santamouris, 2015; Volberg, 2015; Kresevic, 2015). Integrating technological advances could be a useful tool to promote sustainable living through the practice of adaptive reuse. Although technology has a lot to offer, it sometimes acts as a luring device for the uneducated viewer, particularly when it is connected with the marketing strategies that were previously mentioned in the text. All involved stakeholders in projects dealing with heritage assets should act in honest, unbiased ways and should be flexible by taking into consideration, and incorporating, several (usually interdisciplinary) aspects of the building. Viable solutions for reused buildings’ adaptations and the users’ welfare should not be compromised by extreme approaches and should not be covered by fancy terminology sometimes brought up by developers in order for them to ‘sell a product’.

In addition, when it is to preserve the existing architectural heritage, it is necessary for the buildings to correspond to today’s lifestyle and social needs in order for them to be viable. New materials/new technologies are often introduced to old buildings in order for these buildings to work more efficiently and to serve the users’ needs. Of course, the extent to which the new materials and methods will be used is questionable. First, someone should take into consideration the

costs involved, as mentioned earlier. Second, the quote “to the future” from Broutland report should reflect a good integration of old and new elements, working well together and aiming to extend a unit’s life. Different elements should be put on a mental, or even actual, balance sheet for the involved parties to evaluate the embodied energy of these materials, the compatibility with users’ needs and lifestyle and the compatibility with issues of authenticity. If architectural heritage is seen as a human right then the cultural values should not be put at risk by alterations.

#### 5.3.4 Heritage Assets: Authenticity

The phenomenon of globalization seems to cover a number of things under the same umbrella: economy, diplomacy, social attitude and ideas. Some people would be concerned about a future without historical traces or the ability to witness locality. Maintaining our cultural uniqueness, or identity, contributes to sustaining systems of tradition and keeping the individual or collective memory alive. Everything that is built carries a story with it. Preventing historical buildings from becoming derelict and protecting them so that they can be passed on to following generations not only preserves their significance materially, but it also reestablishes their significance in a sentimental, non-measurable way.

Rypkema (2005) talks about how a development can only be sustainable if historic preservation is part of it. The adaptive reuse of the historic fabric can promote a community’s gainful participation in economic globalization (Rypkema, 2005). This thinking could also mean the prevention of cultural globalization which can only harm both local, or vernacular, communities and sustainable development itself. As Rypkema (2005) highlights, preservation has broadened its

meaning; “it is now a vehicle”, as he calls it, which participates in the blooming of tourism, the revitalization of city centers, the creation of new jobs and the abundance of new opportunities for small businesses.

Nasser (2003) mentions the importance of restoring in terms of preserving the ‘living tradition’ instead of advancing a modification that sometimes reflects a non-realistic, or non-authentic, character. Other key points of contention when managing or proposing development plans for an older part of the built fabric are showcased here; the whole landscape and the surrounding context of a ‘unit’ are really important to look at. This dissertation takes into consideration aspects provided by the surrounding context for the application of the methodology, as these elements are crucial to the identity of a place as well. They constitute the music sheet through which a significant melody in its uniqueness is both described and developed. Therefore, the surroundings of a place that is to be redeveloped give important hints about the unit’s personality; it is an inseparable part of the wider atmosphere and a special part of history.

Although maintaining a place’s authenticity through sustainable adaptive reuse is crucial, proper education holds a prominent role in achieving this. Ijla and Broström (2015) point out that it is important for people to be properly educated because sometimes the involved entities do not know or they do not completely understand the true meaning of respecting the original structure and materiality, and therefore, the authenticity of a place could be distorted.



### 5.3.5 Soft Values: The Social Parameter

Nasser (2003) argues that the management of historic sites should not be objectified, and that socioeconomic protection should also be taken into serious consideration. For economic viability and efficient use to take place, reasonable costs should apply. He also argues that the social-parameter is the most neglected one regarding the users, the local community and the general urban population (Nasser, 2003). Following this, the social aspect of adaptively reusing buildings comes into the discussion (which is connected with the social aspect of sustainability as well). Concerning the changing trends and the involved costs, the Declaration of Amsterdam mentions:

“It has been proved that historic buildings can be given new functions which correspond to the needs of contemporary life. Furthermore, conservation calls for artists and highly-qualified craftsmen whose talents and know-how have to be kept alive and passed on.

The rehabilitation of an architectural complex forming part of the heritage is not necessarily more costly than new building on an existing infrastructure or even than building a new complex on a previously undeveloped site. When therefore comparing the cost of these three solutions, whose social consequences are quite different, it is important not to overlook the social costs. These concern not only owners and tenants but also the craftsmen, tradespeople and building contractors on the spot who keep the district alive.”

and, similarly, the Burra Charter (1999) in its Article 15 mentions "Change" as follows:

"15.1 Change may be necessary to retain cultural significance but is undesirable where it reduces cultural significance. The amount of change to a place should be guided by the cultural significance of the place and its appropriate interpretation."

The Burra Charter (1999), also highlights that:

"The best conservation often involves the least work and can be inexpensive".

The chosen approaches that strive for a successful adaptive reuse should fit the existing structure and context both literally and metaphorically. That is, literally as in the physical structure or the physical context, and metaphorically as in the structure of the users' and society's needs and the context concerning the existing conditions and future aspirations (Strumillo, 2016).

#### 5.3.6 Soft Values: Gentrification

An important point mentioned in the declarations and more specifically, in the Declaration of Amsterdam (1975), is the following:

(...)

"f. The rehabilitation of old areas should be conceived and carried out in such a way as to ensure that, where possible, this does not necessitate a major change in the social composition of the residents, all sections of society should share in the benefits of restoration financed by public funds."

This corresponds to the necessity for the rehabilitated areas to remain authentic and not compromise the status quo within the social fabric of the area. This is also connected with the gentrification of various areas and its unnecessary side-effects, sometimes caused by re-developments serving marketing or tourism-oriented strategies.

There is always the thread of an adapted area to be vacant from its residents. Although, tourism and large redevelopment plans can lead to economic revenues and help to upgrade a place, unfortunately sometimes the general picture of daily life is distorted as the areas are more commercialized (Ijla and Broström, 2015).

The involved stakeholders and decision makers should be cautious not only about negatively gentrifying an area and gambling a place's authenticity, inherited vibrancy and daily life, but they should also be cautious about creating a manufactured set that works in a marketing or touristy way that is usually vacant and operating only during commercial working hours.

#### 5.3.7 Soft Values: Monitoring

As change and social matters play a key role in the discussion of both sustainability and preservation, constant monitoring and proper evaluation by a group of experts is crucial in both fields. Concerning the field of preservation, the ICOMOS charter (1999) mentions the necessity of a "multidisciplinary group of scientists", while Faro (2005), in its Article 13: Cultural Heritage and Knowledge, includes the following:

"The parties undertake to:

c. promote interdisciplinary research

d. encourage continuous professional training and the exchange of knowledge and skills, both within and outside the educational system”.

Furthermore, in its Article 17: Co-operation in Follow-up Activities, it mentions that

“The parties undertake to co-operate with each other (...) by

a. Putting in place collaborative strategies to address priorities identified through the monitoring of the process”.

As far as interdisciplinary approaches in preservation under the scope of sustainable development are concerned, it is also crucial to look into which of the involved disciplines should take the lead in marrying preservation with sustainability. Siandou (2015), on preservation and the ‘New Paradigm’, states that it is a dynamic process to manage change and the approach is towards the values and not the object itself. The marriage of preservation with sustainable development should also be a dynamic process as the trends of lifestyle and the state of politics, the economy and the environment are changing all the time. Similarly, the process should pay attention to the values and the deeper meaning of the given place and society and not to the project itself as described earlier.

Consequently, it is argued that the approaches followed in decision-making should be region-specific in order for a better evaluation and set of priorities for each project, and they should also include the voices of different disciplines. Pyburn (2016) talks about how preservationists and their education mostly focus on historic buildings. Thus there is an insufficiency in design, aesthetics and views on new materials over time. He also argues that preservation practices should be developed towards cohesive and humanistic urban development while considering environmental and economic factors. Similarly, Pyla (2012) suggests that

sustainability should be seen in its complexity and through the scope of other realms as well.

Cavaggioni (2015) mentions that a concept of flexibility should be adapted because typical conservation practices cannot solve the challenges of contemporary trends. Moreover, Ochsendorf (2015) argues that preservation, and within the same realm engineering, is of international importance in environmental, economic and social ways. Thus, it should work in an interdisciplinary way in order to offer a range of solutions depending on each case and assuming that engineers have sometimes narrow scopes of evaluating technocratically.

The cultural heritage conservation field could be an integral part of social development processes, but for this to happen, interdisciplinary partnerships and the establishment of common goals and responsibilities is essential (Calame et al., 2004; Salazar et al., 2005). It is apparent that cooperation is crucial within the processes, not only in each practice separately but in between the two practices as well. Both realms of preservation and of sustainability are not static entities, and they should not be conceived as such. For a healthy marriage between the two, the spotlight should be moved from following typical and strict preservation rules to grasping the essence of sustainability. Viable alternatives are crucial as well so that the involved parties can recognize complexities, prioritize and find the different 'colors' between what is sustainable and what is not.

### 5.3.8 Reflections

It is widely accepted that the benefits from adaptively reusing existing units within given built environments are vast. Unproductive property can be seen as a valuable resource for any community. Adaptive reuse helps to revitalize the cities, benefits neglected neighborhoods, encourages energy saving and climate-friendly strategies and incorporates innovative thinking towards sustainable development (Strumillo, 2016).

Ijla and Broström's (2015) findings showed that users believe in the sustainable nature of potential adaptive reuses in comparison to the alternative which amplifies the general perception that adaptive reuse is indeed sustainable. Users and owners think it is cheaper and more environmentally friendly to use the same traditional materials. There is the belief that adaptive reuse holds multifaced benefits (socioeconomic and environmental) and that beneficial revenues are created. They also believe that preserving their built heritage leads to a more sustainable future and lifestyle and that the community regains the sense of a place. Through the adaptive reuse of existing units, traditional techniques, materials and methods are embraced, although monitoring and constant evaluation are crucial to this process.

Ijla and Broström (2015) also argue that adaptive reuse is a good strategy to revitalize the city life and to establish its success; the number of businesses or inhabitants that are attracted to resettle hints at the opportunity for the city to thrive. Jacobs (1961) talked about developments that will not stand the test of time the number of the patrons are incapable to make it work.

Finally, taking into consideration the performance of the adapted units, the majority of the scholars point out their inadequacy if compared to new

contemporary structures. In opposition, this is a shortfall that is considered to be leveled if the social gains of adaptively reusing a building are taken into account. A similar shortfall is noted when comparing old and new constructions regarding their materiality and the respective life expectancy. However, adaptively reused buildings have proven to be efficient in accommodating a new use and effective in terms of the upgrading process. For this reason, it is important to study each case individually as not all buildings are compatible with the introduced uses. Following this mode of thinking with regards to the cost-benefit analysis, no general rules apply when comparing new constructions versus reusing old ones. Adaptive reuse is case-sensitive, and stakeholders should take into consideration all possibilities (technical, economic, environmental) before proceeding to conduct a strategy for adaptively reusing a building.

It is evident that the existing strategies developed by the state in the name of sustainability should be debated every so often in order to assure that these are not promoted with a hidden agenda using advertising slogans or fancy phraseology. On the contrary, it should be assessed whether the different strategies are being developed in depth concerning not only small-scale decisions but also a wider-scope of decisions covering ecological, socioeconomic and cultural matters.

However, it is problematic that developers/investors focus on the socio-economic values of rehabilitation rather than some other, sometimes intangible, aspects that could contribute more holistically to sustainable development. Plevoets and Van Cleempoel (2011) mention that this is a common phenomenon for buildings that have not been listed by the state. They argue that this is maybe a 'threat', in their own words, 'towards preservation of the soft values which

encompass historical, sociological, psychological, artistic, other cultural and even moral and religious sub-functions’.

Furthermore, the built and the unbuilt heritage hold an important role in terms of the cultural aspect of sustainability and therefore, important points related to the previous discussion (respect towards the original features, keeping a clear distinction of what is old and what is new) were taken into consideration for the dissertation’s model.

As far as the architectural expression is concerned, and the question of which heritage should be reused towards sustainable development, some key words were projected through the analysis. For example, the buildings’ materiality, size, location and the buildings’ design era were taken into consideration to determine whether these elements hold a prominent role when reusing an older building and, consequently, expanding its life. This type of criteria is connected with how heritage, when taking part in rehabilitation projects, promotes a more viable future which was essentially an important aspect of the drivers behind this dissertation.

Finally, the previous discussion showed that different contemporary trends and the market influence development or re-development projects. Therefore, some variables like the popularity of the case studies, or the type of the introduced use in contrast with the primary use of a case study, the location, and whether the place is part of a wider scheme for redevelopment were also taken into consideration when running the regression.



#### How this section informs the project

- Soft Values, and not only hard data, can spark development strategies, and therefore, the following criteria should be examined against the possibility for successful adaptations:
  - Monitor and care of the units
  - Respect towards highly historic and cultural elements
  - Respect towards local people, local history and special features
  - Well-being and good standards of living
  - Historical and physical context (the era of construction, and effect on the neighborhood scale, respectively)
  - Population's dislocation, or job openings
  - Original materiality (heritage)

## 6. THE PROJECT

### 6.1 The variables of the model

#### 6.1.1 The Dependent Variable

An intangible aspect of the model is the success of a reused building. Going back to the general form of the multiple linear regression analysis, this quantity expresses the Degree of a Successful Adaptive Reuse (DoSAR) and represents the dependent variable ( $y$ ) of the model; all other variables (parameters ' $x_k$ ') will contribute to explaining the variable ' $y$ '. In other words, the model will help in establishing how the quantity DoSAR varies with changes in the independent variables  $x_k$ .

The dependent variable is found on the left-hand part of the equation. The relationship invented to express the success of the adaptive reuse for the purpose of this dissertation is:

$$\frac{\text{years of the second use}_i}{\text{total operating years}_i} \times \text{year the conversion was realised}_i.$$

where ' $i$ ' indicates the sample's case studies independently.

This formula produces a real number, the value of which reflects the degree of how successful the adaptive reuse is. The bigger the number, the better the adaptation. Regarding the active years of each use (former and new), a relationship could be established based solely on a simple ratio. This, however, would not take into consideration the contrasting cases where a building is still in use as opposed to a building that has ceased its operation.

After the formula was established, some scenarios were applied based on it to establish whether it could be applied realistically in the study. Each of the following scenarios aims to establish a comparison between two hypothetical

cases. In order to cover all possibilities, every time a scenario was tested, only one of the three indicators of the formula changed. Following this method, the most successful hypothetical case, in terms of the respective adaptive reuse, was revealed.

#### 6.1.1.1 Testing the Proposed Formula

##### **Scenario A**

The primary use of Building A took place for 60 years, the conversion was realized in 1970 and the second use introduced was in effect for ten years. This means that the second use ceased in operation 35 years ago. On the other hand, the primary use of Building B occurred for 60 years, the conversion was in 1995 and the second use is still in effect which means that the active years of the second use are 10. Therefore, the case of Building B seems to have an advantage over Building A as the adaptive reuse holds an ongoing state which is verified by the numbers coming from the implementation of the formula (Building A: 281,43 and Building B: 285).

##### **Scenario B**

The conversion of both buildings was held in 1980. The primary use of Building A took place for 60 years and the second use introduced was in effect for ten years. However, the primary use of Building B took place for 60 years and the second use was in effect for 20 years. Although both buildings ceased in operation, the case of Building B seems to have an advantage over Building A as the adaptive reuse seems to be more successful, which can be verified by the result of the implementation of the formula (Building A: 282, 86 and Building B: 495).

### Scenario C

Both buildings are still actively being used. The primary use of Building A took place for 60 years, the conversion was realized in 1980, which means the second use counts 35 years. On the contrary, the primary use of Building B was held for 60 years; the conversion was in 1990 which means that the active years of the second use are 25. Therefore, the case of Building A seems to have an advantage over Building B as the adaptive reuse seems more successful and the formula verifies the assumption (Building A: 729,47 and Building B: 585,29).

### Scenario D

Both buildings are still actively being used. Primarily, Building A was operating for ten years, the conversion was realized in 1970 and the second use introduced is in effect for 45 years. In comparison with the first case, Building B was operating for 50 years, the conversion was realized in 2010 and the second use is still in effect, which means that the operation of the second use counts 5 years. Consequently, the case of Building A seems to have an advantage over Building B since the years of the second use are overpowering over the years of the primary use, which is verified by the result after the formula was implemented (Building A: 1611,82 and Building B: 182,73).

The four different scenarios are summed up in the following table:

SCENARIOS	BUILDING	CONVERSION YEAR	SECOND USE IN YEARS	TOTAL OPERATING YEARS	'Y'	MOST SUCCESSFUL
S-A	A	1970	10	70	281, 43	
	B	1995	10	70	285	X
S-B	A	1980	10	70	282,86	
	B	1980	20	80	495	X
S-C	A	1980	35	95	729,47	X

	<b>B</b>	1990	25	85	585,29	
S-D	<b>A</b>	1970	45	55	1611,82	<b>X</b>
	<b>B</b>	2010	5	55	182,73	

Table 2: Testing the Formula of the DoSAR: Four Different Scenarios

In continuation of the scenarios explained above, the following table presents an imaginary building. Each time the conversion date is changed, but the construction date and the fact that it still operates are given. This experiment was aiming to establish the 'extremes' in order to get an idea of the index's range.

<b>SCENARIOS</b>	<b>CONSTRUCTION DATE</b>	<b>CONVERSION DATE</b>	<b>SECOND USE IN YEARS</b>	<b>TOTAL OPERATING YEARS</b>	<b>'y' or 'DoSAR'</b>
S-1	1900	1901	115	116	<b>1884</b>
S-2	1900	1957	59	116	<b>995</b>
S-3	1900	1958	58	116	<b>979</b>
S-4	1900	1959	57	116	<b>962</b>
S-5	1900	2015	1	116	<b>17,3</b>

Table 3: Testing the Range of the DoSAR Formula: Five Different Scenarios

## 6.1.2 Independent Variables

### 6.1.2.1 Data Tabulation

After reviewing the keywords concerning the theoretical background of this dissertation, and after going through the themes that are mostly connected with the dissertation's objective, which is to establish the criteria that mostly affect a successful adaptation, some parameters were introduced directly, or indirectly. These parameters were considered to be the most appropriate to participate in the analysis, and they surfaced from the critical review of popular rating systems (mostly LEED and BREEAM), preservation ethics, utilitarian matters, and economics, and by connecting these with a unit's viability, or an approach's signs for good practice. The variables that have been unfolding in the previous sections held a significantly large number, and therefore these could be grouped and tabulated for better management of the analysis process.

Some of the parameters were translated in a binary form, whereas some others were reflected real numbers. All of these were then grouped, when possible, and formed the independent variables of the model. For example, many variables of a binary form express the 'green' character of a unit. Moreover, a '1' input reflects a positive characteristic and, therefore, all these binary variables reflecting green characteristics could be grouped together following the lessons learned from popular rating systems, and following the necessity for a non-lengthy model. The same procedure was followed for other variables, as well, reflecting management, socioeconomic, and cultural issues. Furthermore, the need to group together variables from the same family serves the model itself; highly correlated independent variables could result in unreliable conclusions.

The valuable outcome of the tabulation and grouping process is evident in comparing the parameters' number before and after all necessary actions; primarily, the independent variables were forty-six as opposed to the final number of twelve. All parameters that derived from the research, as it unfolded in the previous sections, are described in the following table.

<b>Potential Independent Variable</b>	<b>Derived from</b>	<b>Binary (Y/N)</b>	<b>Grouped (Y/N)</b>	<b>Name of Independent Variable</b>
1. Humidity meter	Talk on Rating Systems	Y	Y	Environmental Actions
2. Minimum greenhouse emissions	Talk on Rating Systems	Y	Y	Environmental Actions
3. Use of updated plumbing systems	Talk on Rating Systems	Y	Y	Environmental Actions
4. Installation of energy/electricity meter and provision of maintenance equipment	Talk on Rating Systems	Y	Y	Environmental Actions
5. Bioclimatic Characteristics (at least two)	Talk on environmental and historical features	Y	Y	Environmental Actions
6. Use of non-toxic paints, coats and materials	Talk on Rating Systems	Y	Y	Environmental Actions
7. Thermal insulation	Talk on Rating Systems	Y	Y	Environmental Actions
8. Original Materiality	Talk on Rating Systems and forms of heritage	Y	N	Primary Material
9. Use of renewable sources of energy (at least one)	Talk on Rating Systems and environmental matters	Y	Y	Environmental Actions
10. Installation of water meter, cooling tower, domestic hot water	Talk on Rating Systems	Y	Y	Environmental Actions
11. Use of recycling policies	Talk on Rating Systems	Y	Y	Environmental Actions

12. Restoration of damaged vegetation	Talk on Rating Systems	Y	Y	Environmental Actions
13. Energy efficient equipment	Talk on Rating Systems	Y	Y	Environmental Actions
14. Maintenance plan (equipment and cleaning plan) for the exterior fabric	Talk on Rating Systems	Y	Y	Management
15. Maintenance plan (equipment and cleaning plan) for the interior elements	Talk on Rating Systems	Y	Y	Management
16. Maintenance plan for the land/environment surrounding the built elements	Talk on Rating Systems	Y	Y	Management
17. Quality retrofitting (innovational)	Talk on Rating Systems	Y	Y	Actions Towards History & Culture
18. Harmonious co-existence of old and new elements (respect towards the existing materiality)	Talk on Preservation Ethics	Y	Y	Actions Towards History & Culture
19. Physical and conceptual connection to the cultural/historical context	Talk on Preservation Ethics	Y	Y	Actions Towards History & Culture
20. Option for documentation of the history lying on site	Talk on Preservation Ethics and Rating Systems	Y	Y	Actions Towards History & Culture
21. Restoration of damaged vegetation or existing built landscape elements and upgrade of the green elements	Talk on Preservation Ethics and Rating Systems	Y	Y	Actions Towards History & Culture
22. Flexibility and adaptability to receive new uses and repairs	Talk on Preservation Ethics and Rating Systems	Y	Y	Actions Towards History & Culture
23. Respect of the existing fabric by new technologies installed	Talk on Preservation Ethics and Rating Systems	Y	Y	Actions Towards History & Culture



24. Designation of the building	Talk on Preservation Ethics	Y	Y	Actions Towards History & Culture
25. Functionality of the plan- inner movements	Talk on Preservation Ethics and Rating Systems	Y	Y	Socioeconomic Matters & Well Being
26. Provision of smoke control	Talk on Rating Systems	Y	Y	Socioeconomic Matters & Well Being
27. Connection to communal/inclusive public spaces	Talk on Preservation Ethics and Rating Systems	Y	Y	Socioeconomic Matters & Well Being
28. Provision of parking spaces (cars, bicycles and motorcycles)	Talk on Rating Systems	Y	Y	Socioeconomic Matters & Well Being
29. Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Talk on Rating Systems	Y	Y	Socioeconomic Matters & Well Being
30. Possibility for new job-openings	Talk on Socioeconomics	Y	Y	Socioeconomic Matters & Well Being
31. Windows for daylight and outer views in all regularly occupied rooms	Talk on Rating Systems	Y	Y	Socioeconomic Matters & Well Being
32. Noise insulation	Talk on Rating Systems	Y	Y	Socioeconomic Matters & Well Being
33. Provision of shaded spaces (trees and heat-absorbing materials)	Talk on Rating Systems	Y	Y	Socioeconomic Matters & Well Being
34. Proximity to public transport (5 minutes on foot)	Talk on Rating Systems	Y	Y	Socioeconomic Matters & Well Being
35. Construction Era	Talk on Heritage Values and preservation ethics	Y	N	Construction Era
36. Age	Talk on Heritage Values and preservation ethics	N	N	Age
37. Usual Users	Talk on economics and management	N	N	Usual Users

38. Location	Talk on economics and heritage values	N	N	Location
39. Covered Area	Talk on economics and management	N	Y	Real Cost/m <sup>2</sup>
40. GDP Growth Rate	Talk on economics	N	N	GDP Growth Rate
41. Real Cost	Talk on economics	N	Y	Real Cost/m <sup>2</sup>
42. Price Index of the Construction Materials	Talk on economics	N	N	Price Index of the Construction Materials
43. Type of Use	Talk on economics and management	Y	N	Type of Use
44. Viability Score	Talk on sustainability	N	N	Viability Score (comprised of Environmental Actions, Management, Actions towards History and Culture, and Socioeconomic Matters and Well-being)
45. Change of Use	Talk on economics and management & Site visits	Y	N	Change of Use
46. Extension	Talk on economics, viability and management & Site visits	Y	N	Extension

Table 4: Data Tabulation

### 6.1.2.2 The Final Form of the Independent Variables

As mentioned in Chapter 3, the general form of the multiple linear regression analysis is the following:

$$y_i = \beta_0 + \beta_1 x_{1i} + \dots + \beta_k x_{ki} + u_i$$

where  $y_i$  resembles each case study, and  $k$  is the number of the regressors.

The independent variables ( $x_k$ ) are found on the right-hand side of the equation. The parameters that were included in the model derive from the bibliographic review, the assessment of relevant rating systems and other methods of assessment that address issues of measuring sustainability, and the benefits of a possible reuse. The site visits of the several sample case studies also provided important information that was implemented in the model and the introduced parameters.

**The variables that have possible explanatory power on  $y$  (or the 'DoSAR') are the following:**

- i. Construction Era (a dummy variable with inputs 1 and 0)

Historical buildings, and especially those that fall under the category of vernacular architecture due to their special features and wise design, work as an anchor to a region's authenticity, and provide stability that encourages a constant relation to the local culture and character. They are proof of a moment in history and, at the same time, they symbolize continuity as they live to be transmitted to the future and to connect ancestors to their successors; past eras to contemporary times. This variable could help draw conclusions on whether historical or cultural aspects are correlated with a successful adaptive reuse.

When the model was starting to unfold, the first variable was whether the building was vernacular or not. However, defining a vernacular building is a tricky task. Do the original construction materials and methods/techniques define what is vernacular? Is a building made with contemporary materials rejected from being vernacular even though it follows the same principles implemented in buildings constructed by indigenous people years (or centuries) ago? The puzzle here was dealt with the omission of the 'vernacular' variable and the inclusion of some independent points within the viability index which will be expanded later in this section.

Fundamentally, what was important to examine here was whether signs of early informal practices have an important role in making a contemporary adaptation successful. Up until the Ottomans' rule and before the colonization of Cyprus, these practices dominated the scene. However, after the colonization of the island and the launch of large development schemes, and after the introduction and wide use of concrete in Cyprus, the informal practices started to deteriorate and, eventually, to disappear. Therefore, the construction era was included in the model in order to examine whether the informal, silent practices affect contemporary adaptations. If the building was constructed before 1925 the input value was '0', whereas if the building was constructed in or after 1925, the input value was '1'. The year 1925 was set as the basis year since Cyprus became a Crown Colony in 1925.

A hypothesis here – or a possible outcome – is that the independent variable, 'construction era', has a positive correlation with the dependent variable 'y' or the DoSAR index as it would be expected that if a property was developed during formal practices (input value '1'), then owners or decision

makers would proceed to a potential adaptive reuse because of more extensive original works. On the other hand, there could be a negative correlation as well, whereby stakeholders might show more sensitivity towards older structures because of their authentic indigenous aesthetics.

ii. Age of the Building (integer number)

The original construction date holds a key role. Age is an important input for the regression model as the inveteracy of a building and the degree of obsolescence are significant for the rehabilitation process.

As a building ages, the degree of obsolescence increases as the material ages with it and it is more vulnerable towards failure. It is expected that the independent variable 'Age' is negatively correlated with the dependent variable 'y' or DoSAR, as high values in age are likely to be associated with lower values in the index for successful reuse. This is because when a building ages it becomes more fragile, giving a second use the disadvantage towards former uses.

**This variable was later dropped from the model for reasons that are explained in a following section.**

iii. Number of Usual Users (integer number)

The number of the usual users reflects the type of activities or uses that are introduced into an old shell. For instance, a small number of the input means residential or small-scale activities such as offices, whereas a bigger number shows a more public or commercial use.

When a building offers public access, then the number of frequent users could imply the popularity of the introduced use, and in this case, the two variables would have a positive correlation. On the other hand, if a building was never designed to host a large number of people and the introduced use proposes to do so, then the building could be driven to an obsolete phase more rapidly. Therefore, in this case, the two variables could be negatively correlated.

iv. Location (a dummy variable with 'Rural' or 'Urban' Input)

The location's input can contribute to concluding whether a building in a historic city center is more likely to be adaptively reused. Moreover, "Location. Location. Location" is a popular motto in real estate circles. What it means, essentially, is that there could be two identical properties with a great difference in value just because of their different locations. Therefore, this parameter was selected in order to investigate whether location holds a leading role in the process of adapting an old building shell. At this stage, the location is distinguished by the buildings' placement in a rural or urban context. This is expressed by dummy variables: 1 for urban and 0 for rural. At a second stage, another parameter correlated with location could be examined if the first classification is proven inadequate. For example, rent, property value or household income could be used to provide indirect insights on whether a case study holds a prime location or not.

v. Annual Gross Domestic Product (GDP) Growth Rate at the time of the conversion (input in %)

The GDP growth rate is the medium for talking about the wealth of the state at a specific time. The greater the wealth, the greater the intention to develop, or redevelop in this case, a property. For this reason, this input was selected to establish whether a wealthy society tends to reuse its building stock. Moreover, if the society shows signs of prosperity, this could mean that the adaptation works are of better quality and therefore, the second use has the advantage over the former use because of this aspect. As explained above, it is expected that a higher value in the GDP Growth could be associated with higher values in the index for a successful reuse, which means that the two variables could be positively associated. The following chart was obtained from the world data bank<sup>10</sup> and shows the GDP Growth Rate in Cyprus from 1960-2017.

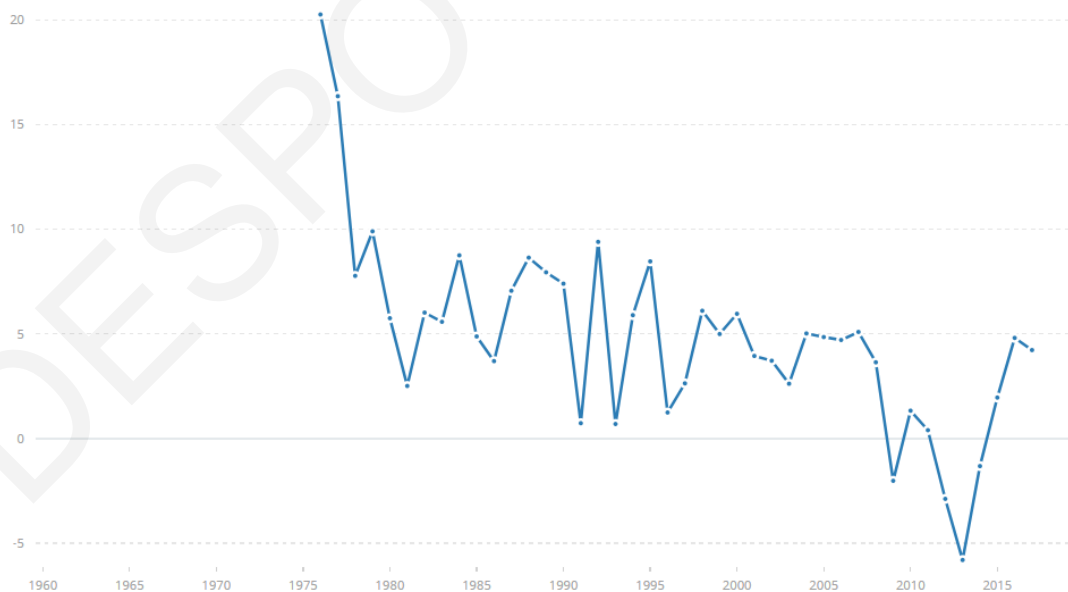


Fig. 6: GDP Growth Rate in Cyprus from 1960-2017

<sup>10</sup> [data.worldbank.org/country/cyprus](http://data.worldbank.org/country/cyprus)

vi. Real Cost of the adaptation works per Square Meter (input in 100000€/m<sup>2</sup>)

The cost of the adaptation could act as a barrier in some cases, whereas in others it could be encouraging. Due to inflation, the cost should be converted to reflect the real cost in order for better comparisons. This is because the purchasing power changes and everything should be examined on a common basis since different conversions from different periods in time are examined for this research.

The Real Cost is seen in terms of the Covered Area, as well. Different aspects, mainly connected with economics and maintenance, of a successful adaptation depend on the size of the building that is being adaptively reused. For older buildings, their physical configuration and size are important aspects of a potential adaptive reuse. There are cases where the original structure was really compact and small in size, thus discomfoting the new introduced use. On the contrary, when an old structure provides bigger spaces, it provides more possibilities and options for the introduced uses as well.

A possible scenario would be that the ratio expressing the real cost per sq. meter is positively correlated with the dependent variable 'y' or DoSAR, as both more capital and large spaces could positively affect a successful adaptive reuse. First, more capital could mean construction works of better quality or more flexibility to produce a more appealing product, and secondly, bigger spaces can provide more flexibility and greater possibilities in the implemented strategies.



vii. Price Index of the Construction Materials at the time of conversion (The data was obtained from the Statistical Service of the Ministry of Finance, Republic of Cyprus)

The price index of the construction materials, with the inflation accounted, could have an impact on the different rehabilitations and the quality of the work that will take place. High values of the price index of construction materials at the time of the works could mean that materials are purchased less easily, and maybe the adaptation works suffer from the market. Therefore, a possible scenario is that this independent variable is negatively correlated with the dependent variable 'DoSAR'. The following chart was obtained from the statistical service of Cyprus<sup>11</sup> and shows the price index of the construction materials in Cyprus from 1960-2018.

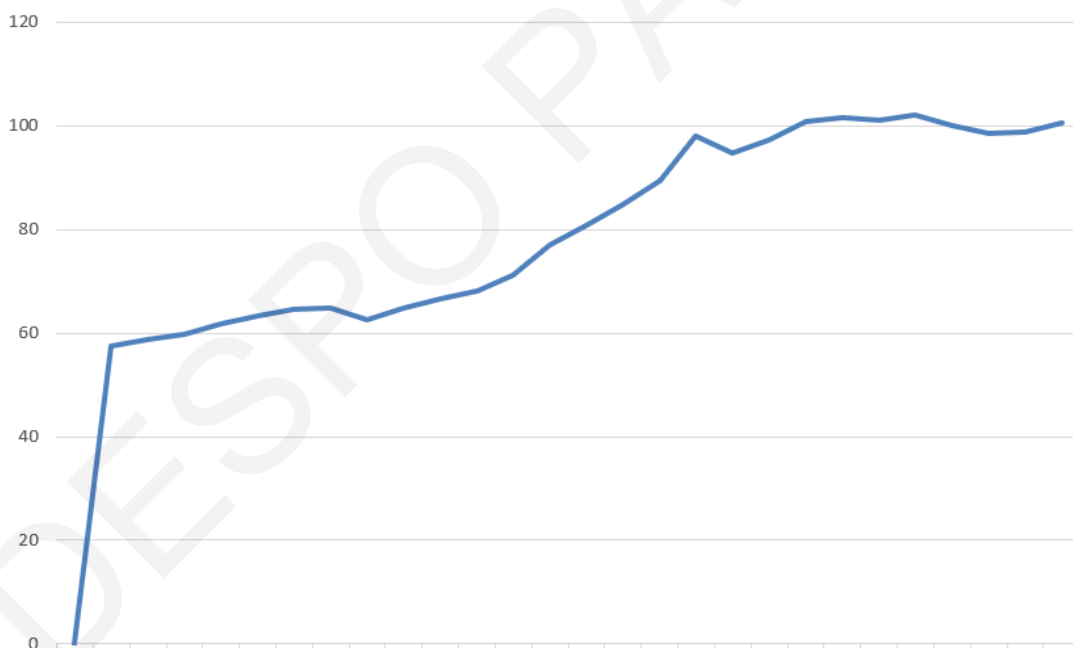


Fig. 7: Price Index of the Construction Materials in Cyprus from 1960-2018

<sup>11</sup> [www.mof.gov.cy/mof/cystat/statistics.nsf/industry\\_construction\\_62main\\_en/](http://www.mof.gov.cy/mof/cystat/statistics.nsf/industry_construction_62main_en/)

viii. Primary Construction Material (a dummy variable: 0 for organic and 1 for non-organic)

The primary construction material is an important variable as it reflects matters such as the life expectancy and the embodied energy (the data for these were obtained from scientific databases). The mechanical behavior of the materials properties mentioned here could affect several aspects of each rehabilitation, such as the users' comfort, the life span of the building and therefore the possibility for a long-term, successful reuse. The use of the variable itself could show the importance it holds statistically when evaluating the degree of a successful reuse. Then, the different use of material could be examined further in order to establish which materials are positively associated with the dependent variable 'DoSAR'. This comparison could provide food for thought concerning the debate on whether to adaptively reuse concrete buildings.

ix. Type of the Introduced Use

The different uses could affect the successful rehabilitation of the building as a unit as well as the neighborhood in which it is included. The different types of use that could have an effect on the index are: 1. Multi-use, 2. Industrial, 3. Educational, 4. Cultural, 5. Institutional, 6. Commercial/Services, 7. Hospitality, 8. Residential, 9. Office, 10. Health, 11. Religious. For the purposes of the regression though, a dummy variable could be used, and therefore the input was boiled down to '0' for residential and '1' for non-residential.

The use of the variable itself can reveal if the introduced use is statistically significant. Then, the difference in use can be examined to establish which type of use is positively associated with the dependent variable 'DoSAR'.

#### x. Viability Score Based on the Manufactured Rating System

After reviewing relevant theory on rating systems measuring the sustainable or green behavior of reused or retrofitted buildings, a rating system, for the dissertation's analysis, was constructed. The rating system consists of several binary questions, which is a more direct and easily applicable way to rate a building's viability and sustainable behavior. Moreover, this does not require a third-party evaluation, and it does not rely on subjective judgments and decisions, but on observations.

This variable's value is the outcome of the application of the fabricated check list, and is indicated by a real number which is the degree of a viable adaptation. Therefore, the regression could reveal the relationship between the degree of a successful reuse and the degree of a sustainable attitude. The question here is whether a successful rehabilitation could depend on its sustainable character as given by the fabricated rating system. A possible outcome is that an index which showcases an attitude towards sustainable living through rehabilitation is positively associated with the degree of a successful reuse, meaning that high values in the first variable would be associated with high values in the latter variable.

To identify the key independent variables, it was important to apply grounded theory, review relevant research in sustainable development and building assessment systems, and articulate comments from users occupying

adaptively reused buildings. The following table shows the evaluation form used when the case studies were examined. The viability index includes four categories for examining a building's state regarding relevant environmental actions, management, historical and cultural aspects, and social matters.

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter		Thermal insulation	
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)		Restoration of damaged vegetation	
Use of non-toxic paints, coats and materials		Energy efficient equipment	
		<b>SCORE</b>	<b>/12</b>
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric		Maintenance plan for the land/environment surrounding the built elements	
Maintenance plan (equipment and cleaning plan) for the interior elements		<b>SCORE</b>	<b>/3</b>
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)		Physical and conceptual connection to the cultural/historical context	
Harmonious co-existence of old and new elements (respect towards the existing materiality)		Option for documentation of the history lying onsite	
Restoration of damaged vegetation or existing built landscape elements and upgrade of the green		Respect for the existing fabric by new technologies installed	

elements			
Flexibility and adaptability to receive new uses and repairs		Designation of the building	
		<b>SCORE</b>	<b>/8</b>
<b>SOCIO-ECONOMIC MATTERS &amp; WELL BEING</b>			
Functionality of the plan – inner movements		Possibility for new job-openings	
Provision of smoke control		Windows for daylight and outer views in all regularly occupied rooms	
Sense of Place			
Connection to communal/inclusive public spaces		Noise insulation	
Provision of parking spaces (cars, bicycles and motorcycles)		Provision of shaded spaces (trees and heat-absorbing materials)	
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow		Proximity to public transport (5 minutes on foot)	
		<b>SCORE</b>	<b>/11</b>
<b>TOTAL SCORE</b>			

Table 3: Viability Index Evaluation Form

Concerning the 'viability index' variable, two of the list's points were considered as independent variables at first, but they were later included in the viability index instead. The first one was the designation of the building (a dummy variable with '1' and '0' input). The designated state of a building could affect the owner's decision to reuse an old building, or its designated status could accelerate the adaptation process. In the particular case of Cyprus, when a building is designated, or listed, this means that there is a great chance of receiving funding from the government or by the European Union. This means valuable capital that could greatly influence the restoration work. Hence, an expected outcome would be that a 'yes' input would lead to higher degree of success and consequently, the

independent variable 'Designated Building' could have a positive correlation with the dependent variable 'y' or DoSAR. However, it was decided that this variable could be included within the viability index as it is connected with some aspects pointing at cultural and historic preservation aspects and, indirectly, at economic incentives.

The second variable that was standing alone as an independent variable but was later included in the viability index is 'bioclimatic approach by design' (a dummy variable with 'Yes' or 'No' Input). This was considered to be an important variable to be included, as efficient bioclimatic functions could motivate users or the owner to adaptively reuse their building, especially if it is beneficial in terms of spatial comfort and also economics. However, it was later included in the environmental actions of the viability index, firstly because it could fit within the specific category and secondly because, in terms of multiple regression analysis, it is better to keep the independent variables as few as possible, especially when the sample is small.

Finally, the categories of the viability index could be examined separately concerning both their relationship with the dependent variable and their statistical significance within the dissertation's model. A possible outcome could be a positive correlation of all four matters with the DoSAR, as all point out good intentions towards a sustainable behavior. Therefore, a high score in all categories could be beneficial towards an asset's potential reuse as well.

- xi. Contemporary extension for the reuse (a dummy variable with inputs '0' for no extension and '1' with extension), and
- xii. Change in use after the adaptation of the building (a dummy variable with inputs '0' for change in use and '1' for no change in use)

After all the site visits and the relevant research concerning all case studies, it was decided that these two final variables could be included in the model. A variable concerning a contemporary extension could be positively correlated with the degree of success of the reuse as it deals with the unit's performance and its obedience to the user's growing needs. On the other hand, a variable concerning the change in use, through or for the adaptation, could be both positively and negatively correlated with the adaptation's success. Depending on the surrounding context and the urban fabric's needs, or the user's lifestyle, a change in use could be beneficial or it could be proven unsuccessful with the unit ceasing its operation. Nevertheless, it would be interesting to explore the most successful cases of adaptively reusing obsolete buildings and to examine if the change in use plays an important role.

### 6.1.2 Reflections

To sum, all criteria participating in the model are categorized into three main groups: Physical, Economic, and Utilitarian (the graph below indicates the selected criteria and their division in the three categories). The selection of the criteria was based on the critical analysis of the literature review and the assessment of the situation dominating the scene in Cyprus.

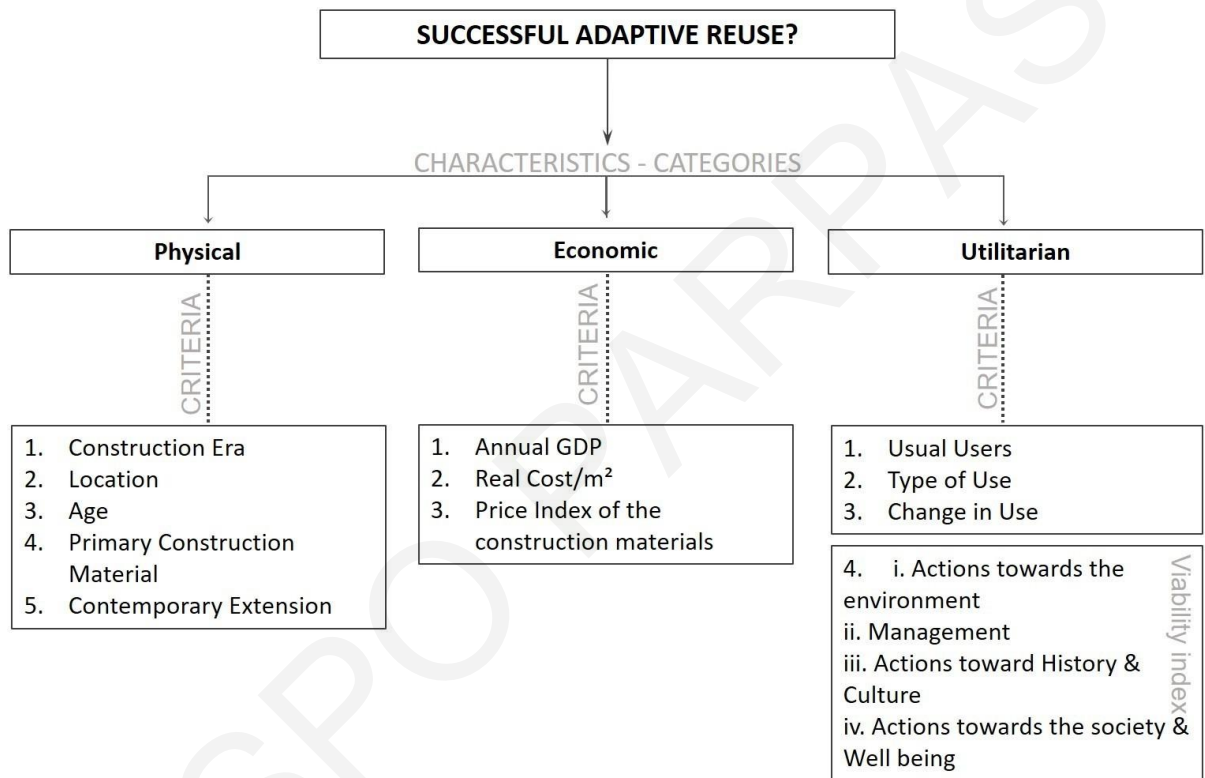


Fig. 8: The different criteria participating in the Dissertation's Model



## 6.2 The Equation Used for The Multiple Regression Analysis

After the establishment of the dependent variable 'y' and the discussion on the independent variables 'x', the multiple linear regression model has been developed in the following form:

$$y_i = \beta_0 + \sum_{j=1}^{12} \beta_j x_{j,i} + u_i$$

where 'i' resembles each case study.

If the model is shifted to reflect the variables discussed above aiming to serve the objective of the dissertation, the form of the regression model changes to:

$$DoSAR_i = \beta_0 + \beta_1 ConEra_1 + \beta_2 NuU_i + \beta_3 Lc_i + \beta_4 GdpG_i + \beta_5 CostM2_i + \beta_6 PiCm_i + \beta_7 Pcm_i + \beta_8 Tu_i + \beta_9 VScr_i + \beta_{10} Ext_i + \beta_{11} Cu_i + u_i$$

where DoSAR: Degree of a Successful Adaptive Reuse,

ConEra: Construction Era,

NuU: Number of usual users,

Lc: location,

GdpG: GDP growth rate at the time of the adaptation,

CostM2: real cost per square meter,

PiCm: price index of construction materials at the time of the adaptation,

Pcm: primary construction material,

Tu: type of the introduced use,

VScr: Viability score based on the manufacture evaluation system towards the building's sustainable behavior,

Ext: Extension and

Cu: Change in Use.

The following table indicates the variables along with their input type and their labels for reference.

Variable Name	Storage Type	Variable Label
DoSAR	Real Number	DoSAR
ConEra	Dummy	Construction Era
NuU	Integer Number	Number of Usual Users
Lc	Dummy	Location
GdpG	Real Number	GDP Growth Rate
CostM2	Real Number	Real Cost per M2
PiCm	Real Number	Price Index of Construction Materials
Pcm	Dummy	Primary Construction Material
Tu	Dummy	Type of Introduced Use
VScr	Real Number	Viability Score Index
EnvSc	Real Number	Environmental Score
MngSc	Real Number	Management Score
HstCultSc	Real Number	History and Culture Score
ScSc	Real Number	Social Score
Ext	Dummy	Extension
Cu	Dummy	Change in Use

Table 6: All the Variables of the Model

### 6.2.1 Assumptions

Several assumptions are made in order to be able to run the model. All relevant independent variables are included and the error term ( $u$ ) is expected to be zero assuming that  $u_i \sim iid(0, \sigma_u^2), \sigma_u^2 < \infty$ . The error term, as explained earlier, represents all the variables that were not included in the calculations as it has an effect on the dependent variable  $y$ , along with all the independent variables. In addition, the variance of the error terms for all observations is constant and they are uncorrelated with each other, otherwise, if these were connected, one or more independent variables  $x$  should be included as well.

Moreover, the independent variables  $x$  should not have a linear relationship with each other; this is crucial for the multiple regression linear model

because it would be impossible for the coefficients to be calculated if some of the independent variables 'x' had a perfect linear relationship (the following graph indicates perfect multicollinearity). It is best for the model if the independent variables are not highly correlated.

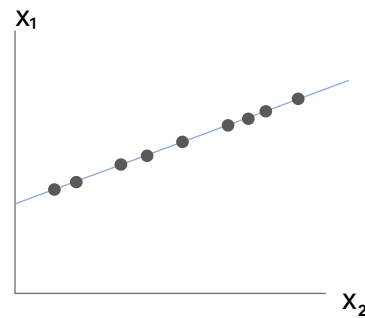


Fig. 9: Perfect Multicollinearity between Independent Variables  $x_1$  and  $x_2$

Finally, the dependent variable of the model should not be explained by any functions existing in the model (this is called endogeneity). In the case of this dissertation, the formula describing the dependent variable 'DoSAR' includes values in years. For this reason, the independent variable 'age' had to be dropped from the model in order to avoid endogeneity.

### **6.3 Case Studies and Data collection**

A number of case studies deriving from the existing built fabric in Cyprus were selected and assessed in terms of how they meet the variables of the regression. Generally, the sample size should be significantly large in order for the coefficients to return valid results.

In order for the assessment to be possible, preparational research and work were conducted, and then a personal encounter and discussion with the owners or users of the buildings had to take place. Eventually, all the crucial information for the analysis were collected based on the corresponding site-visits. Some data and information coming from the statistical services or the market have been obtained as well.

The case studies were taken from the existing built stock in Cyprus. All the cases date from the late 19<sup>th</sup> century to the mid-20<sup>th</sup> century when the industrial revolution in Europe started affecting Cyprus, and when the modern movement was claiming new morphological features throughout the island, respectively. The objective was to collect data concerning different typologies, materiality, size and architectural forms in order for a diverse collection of examples to be created. Therefore, the sample's adaptively reused buildings are characterized by both different and unique aesthetic features and built forms providing the possibility for a range of different approaches and different opportunities for potential adaptations. The sample consists of one hundred and four (104) case studies<sup>12</sup> and the variety characterizing the different aspects (materiality, configuration,

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<sup>12</sup> The completed forms in conducting this research can be found in Appendix C.



(Fig. 10: Clockwise, from the upper left corner: Haroupomiloi Laniti (Limassol), Miloi (Kaimakli, Nicosia), Art Workshop (Strovolos), Commercial street (Larnaka), Geopark Museum (Troodos), Art shop and residence (Larnaca)).

location, size, use, conservation approach) is partly illustrated in the collage of Figure 10.

Some key questions were expected to be answered after the data was collected and processed through the regression analysis. First, and more importantly, the variables with the highest explanatory power on the degree of a successful adaptation will surface. Secondly, this dissertation's analysis highlights how important it is that the selected criteria come from different realms in order to verify or reject the belief that economics is taking the lead when a building is to be reused aiming to achieve a successful, viable redevelopment.

In addition, although there are many rating systems measuring a building's green or sustainable performance, the application of this methodological tool (via the use of the manufactured viability index) could

provide solid proof of whether the successful adaptive reuse of existing buildings is affected by the application of such rating systems and the asset's ranking, or if the score achievements are only a matter of prestige and status. The correlation between the viability of a building regarding its sustainable behavior and the degree to which the reuse is successful will be direct: the independent variable concerning the viability score will be tested as a possible regressor of the degree of a successful adaptive reuse.

One filling form was used per case study (all one hundred and four cases). For all tabs to be completed, both site visits and general research were conducted. In addition, some important information was obtained from owners, users, and architects or other parties. Statistical information was obtained from the Cypriot Statistical Service and the World Bank Open Database<sup>13</sup>.

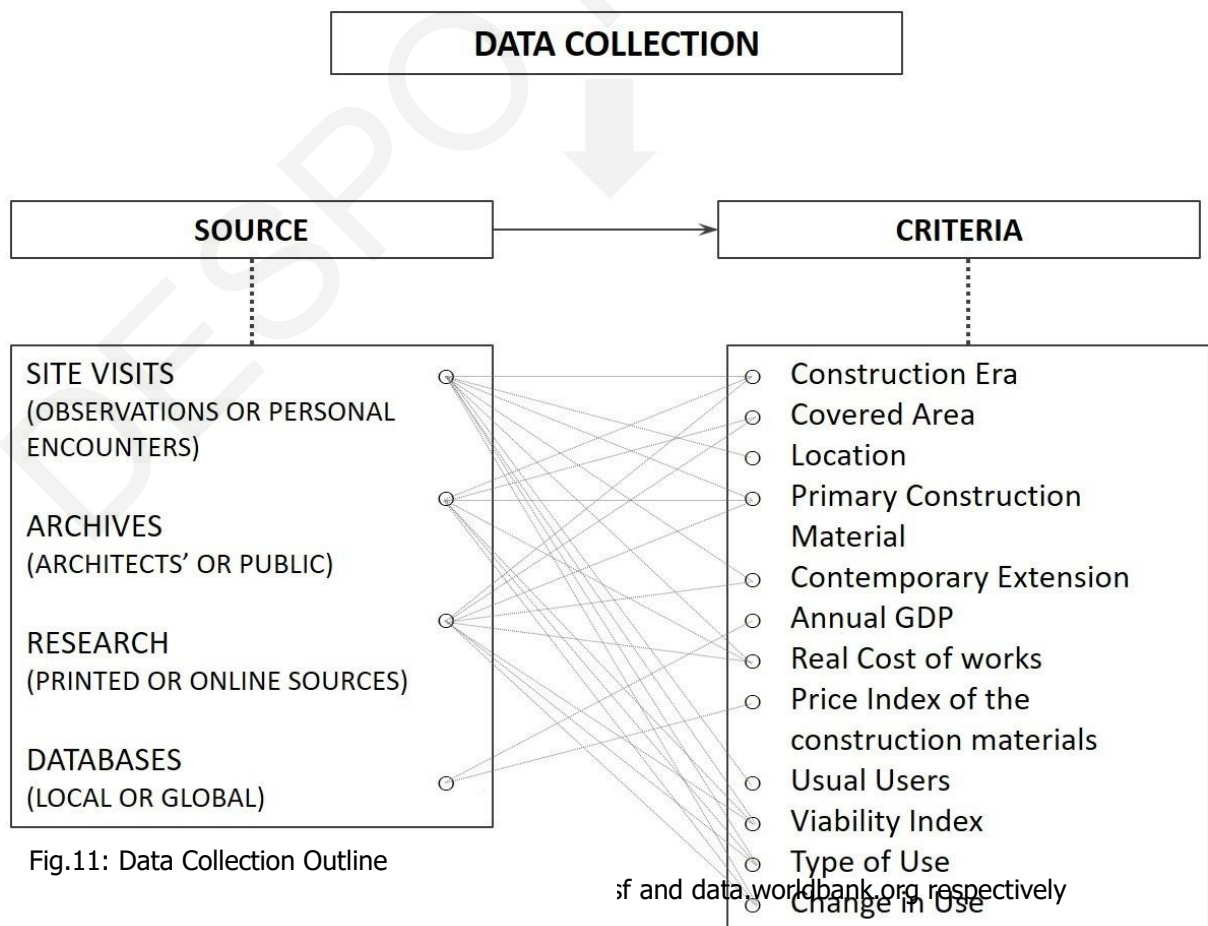


Fig.11: Data Collection Outline

## 6.4 Implementation of the Formula

For the regression analysis, the statistical tests and coefficient estimates, the program Stata was used. The program operates with commands and uses data inserted in table form. The type of the variables was also set in the program's manager window which means that the input for each variable was described as follows:

- i. 'Integer' when the value inserted was an integer number,
- ii. 'Float' when the value inserted was a real number and
- iii. 'Byte' when the value was for a dummy variable with '0' and '1' input.

Although the sample contained 104 case studies, some of the data was missing for some case studies, and therefore, these were not used in the estimation of the model.

For statistical tests to be implemented, three rules should apply. A hypothesis, the test and the rejection rules are needed. For the model, the hypothesis is described as:

$$H_0: \beta_i=0, \text{ and } H_1: \beta_i \neq 0$$

which means that if the hypothesis is tested and is rejected, then the coefficient could have a value other than zero and therefore the variable could not be omitted. To reject the hypothesis  $H_0$ , the marginal value ( $\alpha\%$ ) of the model should be larger than the p-value (p.v) every time a test is conducted. In the case of this dissertation, the marginal value is  $\alpha\%=0.05$  which means that every time a statistical test is performed to test a hypothesis, this will be rejected if the p-value of each coefficient is less than 0.05. In this case, it is possible that the variable tested does not hold a significance statistically and could be omitted.

On the other hand, when  $H_0: \beta_i=0$ , and  $p.v<0.05$ , then the hypothesis  $H_0$  is rejected, which means that the variable could not be omitted from the model as it is important statistically.

## 6.5 Regression Analysis and Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
DoSAR	89	205.1661	139.5438	0	826.6938
ConEra	89	.258427	.4402502	0	1
NuU	89	25.23596	47.18099	2	400
Lc	89	.4831461	.5025471	0	1
GdpG	89	2.143865	3.714751	-5.953	20.266
CostM2	89	1433.464	1157.76	11.111	9288.141
PiCm	89	89.67348	16.19092	24.41	105.09
Pcm	89	.2247191	.4197621	0	1
Tu	89	.7865169	.4120875	0	1
VScr	89	.6337	.0855392	.303	.8182
Ext	89	.5955056	.4935746	0	1
Cu	89	.6629213	.4753903	0	1

Table 7: Descriptive Table formed by STATA. From left to right, the table includes the number of observations (Obs), the mean value (Mean), the standard deviation (Std.Dev.), the minimum (Min) and maximum (Max) values for each variable.

When all data is collected, a lot of information can be obtained through the descriptive statistics of a given model such as the range or the mean of the values and the standard deviation. On the other hand, the run of a given regression results in establishing the relationship between different variables.

After the run of the dissertation's model (Table 8), some crucial information was obtained, such as the estimates for each coefficient and the p-values for each independent variable, as well as other important information concerning the model itself, such as the residuals or the value of the R-Squared.



The following table was formed through STATA.

```
. reg DoSAR ConEra NuU Lc GdpG CostM2 PiCm Pcm Tu VScr Ext Cu
```

Source	SS	df	MS			
Model	1450012.44	11	131819.312	Number of obs =	89	
Residual	263565.633	77	3422.93029	F( 11, 77) =	38.51	
Total	1713578.07	88	19472.4781	Prob > F =	0.0000	
				R-squared =	0.8462	
				Adj R-squared =	0.8242	
				Root MSE =	58.506	

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ConEra	56.59666	15.9111	3.56	0.001	24.91361	88.27971
NuU	.0761036	.1573901	0.48	0.630	-.2373001	.3895074
Lc	14.32749	14.97082	0.96	0.342	-15.48322	44.13821
GdpG	2.740354	2.362138	1.16	0.250	-1.963264	7.443971
CostM2	-.0064307	.0056194	-1.14	0.256	-.0176203	.004759
PiCm	-6.82166	.5334761	-12.79	0.000	-7.883947	-5.759374
Pcm	3.507657	15.7497	0.22	0.824	-27.854	34.86931
Tu	11.16138	19.06204	0.59	0.560	-26.796	49.11875
VScr	-118.1395	92.64651	-1.28	0.206	-302.6223	66.3433
Ext	-10.10934	13.79437	-0.73	0.466	-37.57744	17.35875
Cu	6.895591	16.84083	0.41	0.683	-26.63878	40.42996
_cons	863.5094	69.55531	12.41	0.000	725.0071	1002.012

Table 8: Regression Run: Model's Estimations. For each variable the coefficient estimates (Coef.), standard errors (Std. Err.), and p-values (p>|t|) are obtained.

The most striking information after the first run of the regression model is that there are two independent variables with **high explanatory power** over the Degree of a Successful Adaptive Reuse. These are: **the construction era of the asset and the price index of the construction materials at the time of the conversion**. On the other hand, the original primary construction material, a change in use and the number of usual users have negligible explanatory power over the DoSAR.

The following section includes the graphs describing each variable separately based on the collected data that was used for the regression, as well as a discussion on the estimates for each variable's coefficient.

## 6.5.1 Statistics of the Independent Variables

### 6.5.1.1 Independent Variable 1: Construction Era

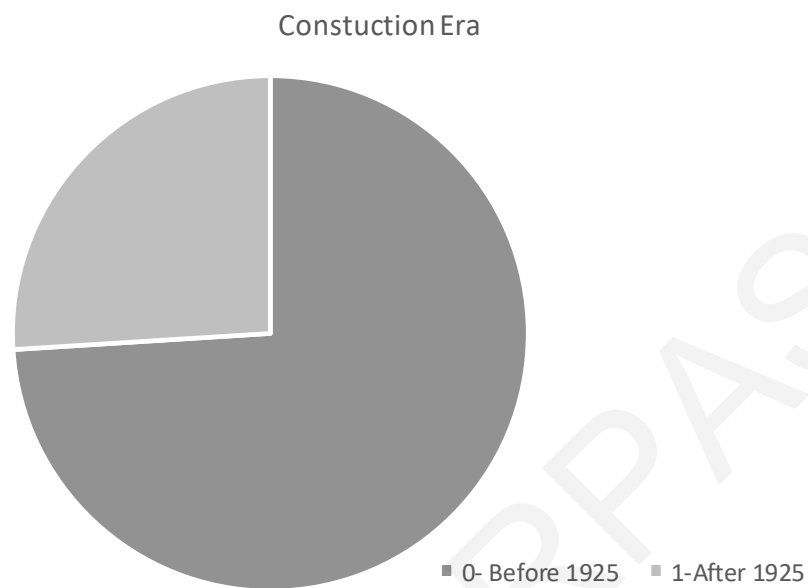


Fig. 12: Descriptive Chart: 'Construction Era'. Division of the sample in binary terms.

The chart shows that the majority of the units for which the data was collected were built before 1925. As far as the estimate of coefficient is concerned, its value (+56.59) shows a positive correlation with the dependent variable, which means that buildings built after the formalization of the construction processes in Cyprus stand a greater chance of achieving a successful adaptive reuse (in numbers, it stands 56.59% more chances of being successfully adaptively reused).

The p-value of the variable's coefficient is calculated to 0.001 which is lower than the critical value (0.05), and therefore the hypothesis  $H_0$  is rejected. Therefore, this variable is statistically significant to participate in the model.

### 6.5.1.2 Independent Variable 2: Number of usual users

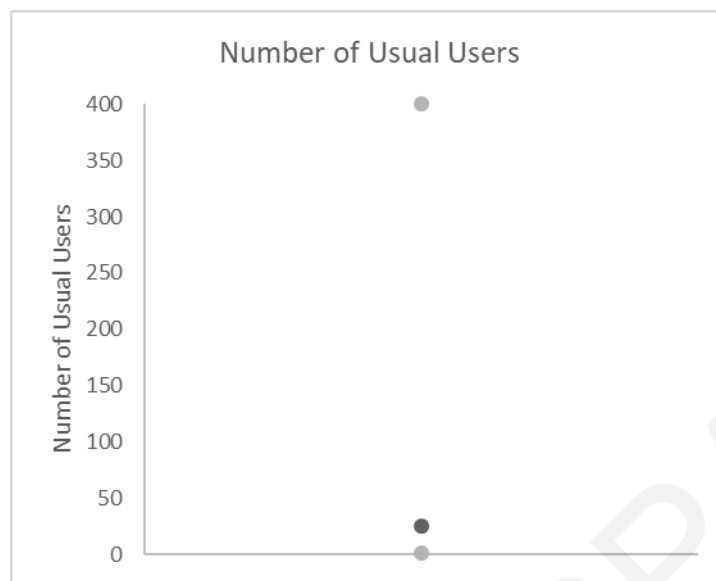


Fig. 13: Descriptive Chart: 'Number of Usual Users': minimum, mean and maximum values.

The most visited building of the sample hosts four hundred people on a daily basis, and this reflects its public use (educational), whereas the building with the least usual users is a residential unit with two occupants. The average number of usual users for all units in the sample is 25.2 people on a daily basis.

The value for the coefficient equals +0.07 which means that for every unit increase in variable 2 (number of usual users), a 0.07-unit increase is expected in the dependent variable, DoSAR. At first, it was partly expected that larger numbers of usual users would lead to a higher degree of success; the coefficient's value could provide evidence that the two variables are positively correlated.

As far as the p-value is concerned, its value is 0.63 which is significantly higher than the marginal value of 0.05. Therefore, the hypothesis  $H_0$  is accepted, and this variable does not hold a significant role in the model.

### 6.5.1.3 Independent Variable 3: Location



Fig.14: Descriptive Chart: 'Location'. Division of the sample in binary terms.

The sample contains case studies from both urban and rural contexts (almost equally). The estimate of the coefficient is 14.32, which means that for every unit increase in variable 3 (urban or rural context), a 14.32-unit increase is expected in the dependent variable. Since the variable is coded as 0 for rural and 1 for urban, the interpretation is that for buildings located in an urban context, the predicted score would be 14.32 points higher than the buildings located in a rural context.

At the early stages of data collection, it was critical to see whether a building in a historic city center is more likely to be adaptively reused. Henceforth, it was expected that a confirmatory input would lead to a higher degree of success; an assumption proven to be correct. On the other hand, this does not mean that the location, when examined in terms of the general context, is statistically important when measuring the degree of how successful the reuse is.

The p-value of the coefficient equals 0.342 which is higher than the marginal value of 0.05. This means that the variable could be omitted because the hypothesis  $H_0$  is not rejected.

#### 6.5.1.4 Independent Variable 4: GDP Growth Rate at the time of the adaptation

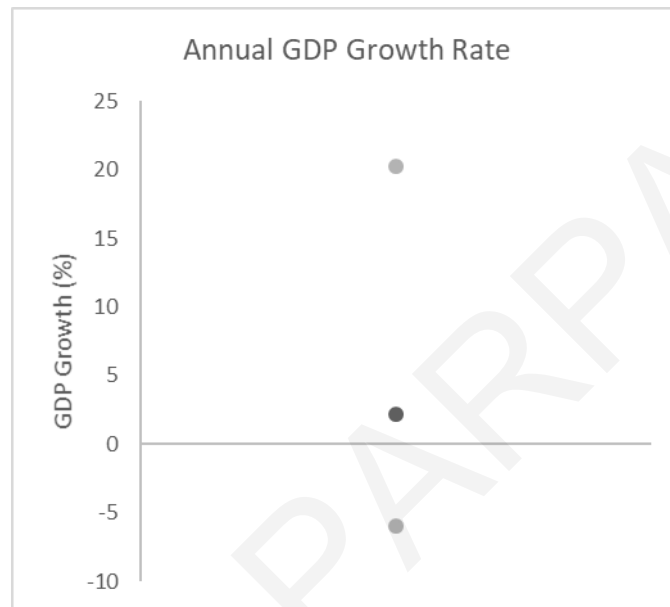


Fig.15: Descriptive Chart: 'GDP Growth Rate' at the time of the adaptation: minimum, mean and maximum values.

The highest value of the GDP growth rate is 20.266 which was in the 70's, and this makes sense since the base year was set to 2007. As shown in the chart, the lowest value of the growth rate equals -5.953 and the mean value of the growth rate equals 2.20.

The value for the coefficient equals +2.74 which means that for every unit increase in variable 4 (the annual gross domestic product growth rate), a 2.74-unit increase is expected in the dependent variable. Moreover, it was expected that a higher value in the GDP Growth could be associated with higher values in the index for a successful reuse, which means that the two variables could be

positively associated. This reflects the assumption that when society shows signs of prosperity, the restoration works could be of better quality and therefore, the second use has the advantage over the former use because of this reason. What is shown here is that the two variables have indeed a positive correlation. Finally, the p-value of the variable's coefficient is 0.250 which is higher than 0.05 and therefore the hypothesis  $H_0$  stands. Therefore, the annual GDP growth rate does not have strong explanatory power over the DoSAR.

#### 6.5.1.5 Independent Variable 5: Real cost of the adaptation per Square Meter

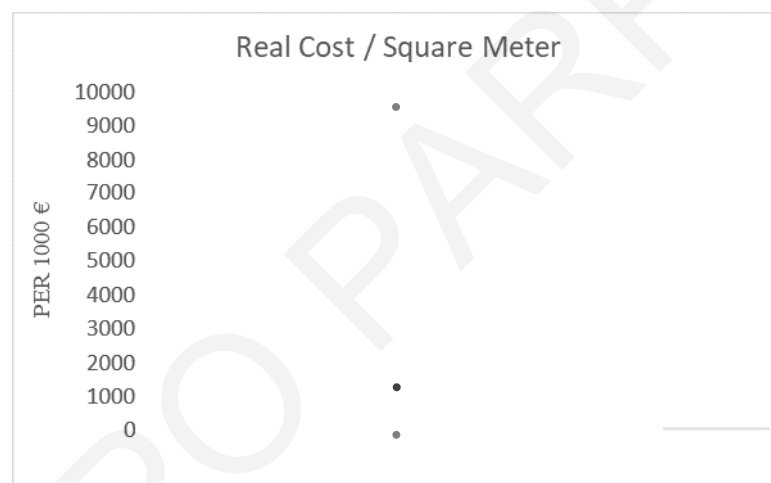


Fig. 16: Descriptive Chart: 'Real Cost' of the adaptation: minimum, mean and maximum values.

The highest amount spent for a unit's adaptation was 3620 Euros/ sq. meter, whereas the lowest amount was less than 119 Euros/ sq. meter. The mean value of the amount spent for a reuse was about one third of the highest amount which equals approximately 1433 Euros/ sq. meter.

The value for the coefficient equals -0.006 which means that for every unit increase in variable 5 (real cost of conversion), a negligible (almost non-measurable) decrease is expected in the DoSAR. At first, it was partly expected that large numbers in the capital could mean retrofitting works of better quality or

more flexibility to produce a more appealing product. However, it has been proven here that the two variables are negatively correlated even though the changes in the two values are almost undetectable. As far as the p-value of the coefficient is concerned, its value is 0.25, which is higher than 0.05. This means that the hypothesis  $H_0$  is not rejected and, therefore, this variable could surprisingly be omitted from the model.

#### 6.5.1.6 Independent Variable 6: Price Index of Construction Materials at the time of the adaptation

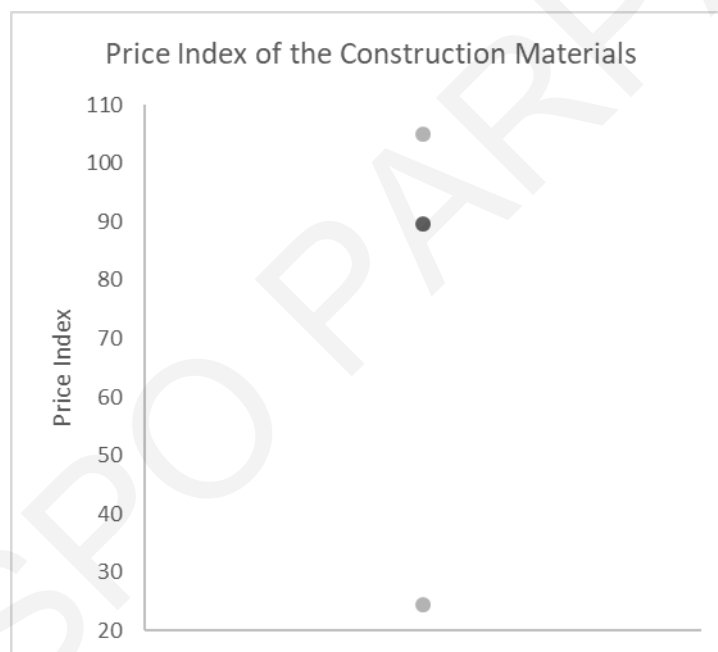


Fig. 17: Descriptive Chart: 'Price Index of the Construction Materials' at the time of the adaptation: minimum, mean and maximum values.

The maximum and minimum values of the price index at the time of the units' conversions are 105.09 and 24.41 respectively. The average value is set to 89.82 which is closer to the maximum value.

The variable's coefficient equals -6.82 which means that for every unit increase in variable 6 (the price index of the construction materials), a 6.82-unit

decrease is expected in the dependent variable, DoSAR. Moreover, a possible scenario was that this independent variable would be negatively correlated with the dependent variable as high values in the price index of the construction materials could mean that materials were purchased less easily and this could have a negative effect on the construction works. What is shown here is that the two variables do have a negative correlation.

What is also proven here is that the price index of the construction materials cannot be omitted from the model as it holds importance statistically: the p-value of the variable's coefficient equals 0.00 which is less than 0.05 and therefore the hypothesis  $H_0$  is rejected.

#### 6.5.1.7 Independent Variable 7: Primary construction material

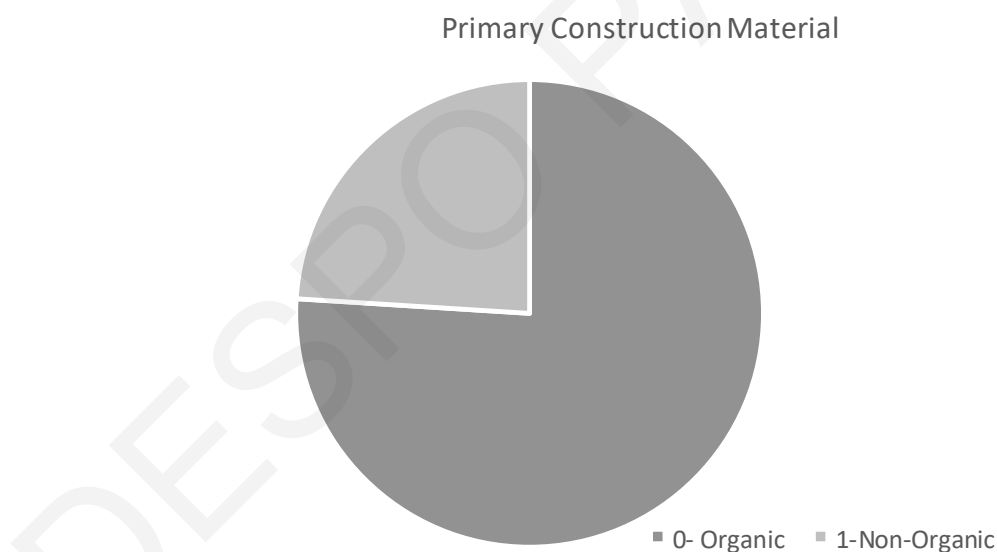


Fig. 18: Descriptive Chart: 'Primary Construction Material'. Division of the sample in binary terms.

As the chart shows, most of the sample's units are made with organic materials. More specifically, 32% of the buildings were made with adobe bricks, 4% with concrete, 36% with limestone, 9% with river rock, and 1% with cement



rock, whereas 5% of the cases were built primarily with a combination of materials for the primary construction such as limestone with concrete, river rock with adobe bricks or limestone with adobe bricks.

The estimate of the coefficient equals +3.5 which means that for buildings built with non-organic materials, the predicted score in the DoSAR would be 3.5 points higher than the ones made of organic materials. At the early stages of the data collection, it was critical to see whether a building made of traditional materials and techniques was more likely to be adaptively reused in comparison to modern materials such as concrete.

The p-value of the coefficient is 0.824 which shows that this variable is not important statistically when it comes to the success of the adaptively reused building (the p-value is by far higher than the marginal value of 0.05 which means that  $H_0$  is not rejected).

#### 6.5.1.8 Independent Variable 8: Type of the Introduced Use

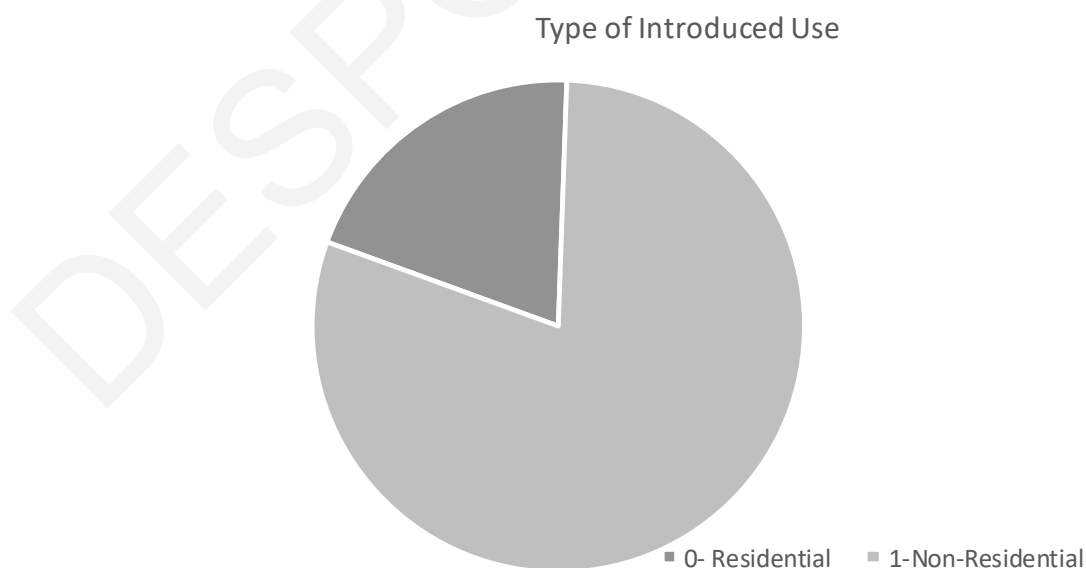


Fig. 19: Descriptive Chart 'Type of Introduced Use'. Division of the sample in binary terms.

The new uses introduced in the existing building shells varied between eleven different types; 12% of the cases hosted multiple uses, 2% were of industrial use of a small scale, 10.5% were spaces dedicated to education, 19% of the buildings were reused for cultural purposes, 5% of the buildings hosted institutions, 10.5% of the cases were dedicated to commerce and services, 8% of the buildings were converted to accommodate people as in motels and guest houses, 22% of the cases were converted to (or kept as) residential units, 8% were spaced accommodating offices, and finally, 1% and 2% of the buildings were dedicated to religion and health respectively. To sum, one-fifth of the sample concerned units adapted to accommodate residential uses.

The value for the coefficient equals +11.16 which means that the predicted score in the DoSAR would be 11.16 points higher for non-residential adaptations.

At the early stages of the data collection, an important hypothesis was that the different uses could affect the successful adaptation of the building as a unit as well as within the neighborhood it was introduced to. Nonetheless, what is proven here is that this parameter is not important statistically. The p-value of the coefficient is 0.56 which is higher than the marginal value of 0.05 which means that  $H_0$  is accepted.

### 6.5.1.9 Independent Variable 9: Viability Score

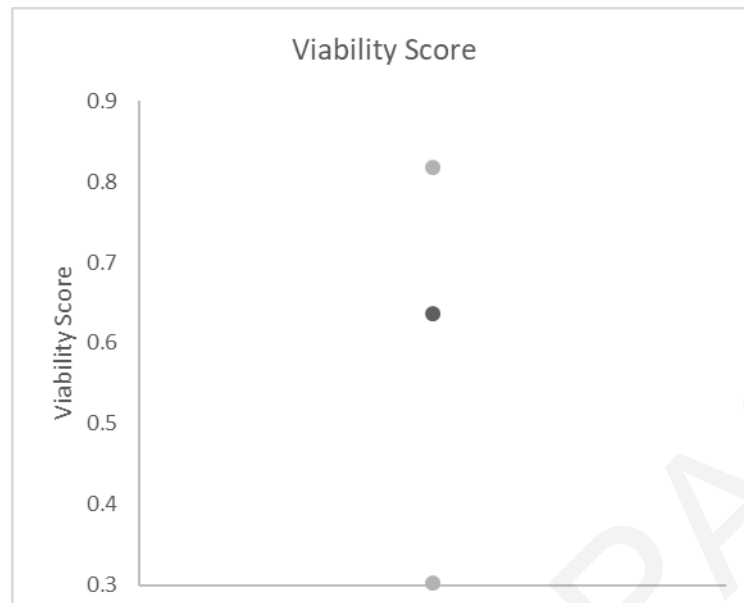


Fig. 20: Descriptive Chart: 'Viability Score': minimum, mean and maximum values.

The highest score achieved when implementing the manufactured rating system was 0.812 and the lowest score achieved was 0.33 which is a really low score, more than 0.3 points below average. These scores reflect, respectively, a very positive versus a discouraging attitude towards sustainable living, or a good state of welfare. The mean value of the scores achieved is 0.63 which indicates that more than half the binary criteria on the manufactured index had affirmative input.

The value for the coefficient equals -118.13 which means that for every unit increase in variable 9 (the viability score), a 118.13-unit decrease is expected in the dependent variable. Contrarily enough, it was expected that this index showcasing a positive attitude towards sustainable living would be positively associated with the degree of a successful reuse (meaning that high values in the first variable would be associated with high values in the latter variable). What is

shown here is that the two variables have a negative correlation which is beyond the first hypothetical scenarios.

On the other hand, the statistical tests show that the variable showcasing the viability of the adaptation is not highly significant; the p-value of the variable's coefficient equals 0.206 which is higher than 0.05 and therefore the hypothesis  $H_0$  is not rejected.

#### 6.5.1.10 Independent Variable 10: Extension

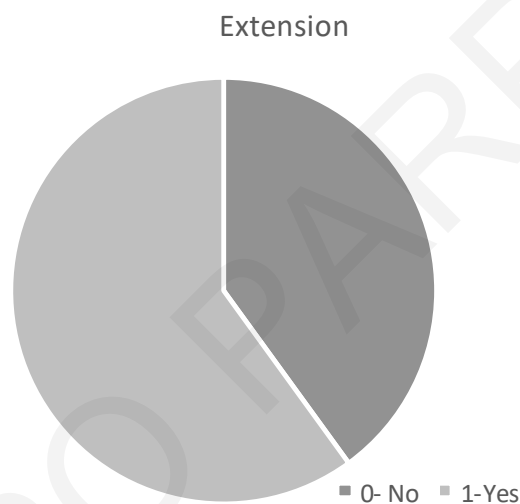


Fig. 21: Descriptive Chart: 'Extension'. Division of the sample in binary terms.

#### 6.5.1.11 Independent Variable 11: Change in Use

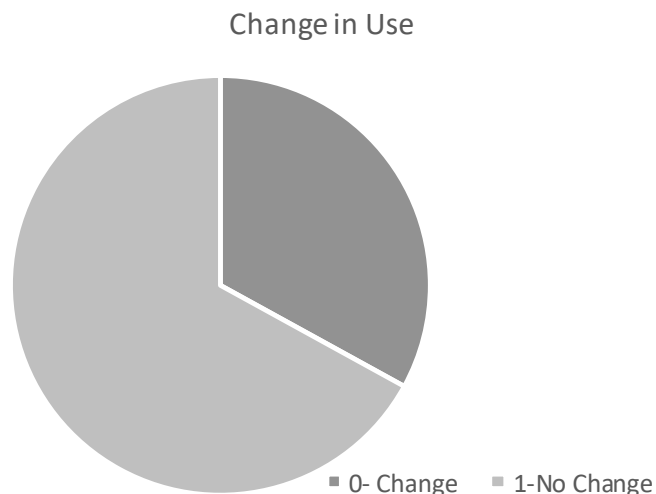


Fig. 22: Descriptive Chart: 'Change in Use'. Division of the sample in binary terms.

During the site visits, and in combination with general research on the buildings involved in the sample, two more variables came up. The existence of an extension to the old structure or the construction of a newer part in order for the new use to be accommodated. The second parameter that was introduced to the model was the change of use in each case. For example, if the new use was different from the former one then the numeric '1' was inserted, whereas if the building hosted the same use after the adaptation, then the numeric 0 was inserted.

As shown in the chart above (fig.21), more than half the case studies included some kind of extension or a newer addition to them. As far as the status of the use is concerned, there were 70% cases where new, different uses were introduced to the existing shells. The introduction of a built extension is negatively correlated with the dependent variable, whereas maintaining the existing use is positively correlated with it (respectively, the estimated values for the coefficients are -10.10 and +6.89).

The p-values for variables 10 and 11 (extension, change of use) are 0.466 and 0.683, respectively. The hypothesis  $H_0$ , for any of the two cases, is not rejected which means that both variables are not important statistically, although the variable describing the existence of an extension is more important statistically.

## 6.5.2 Diagnostic Tests and Reliability of The Model

The regression model was tested in order for the reliability of the model to be verified. First, the model was tested for heteroskedasticity, and the results showed that heteroskedasticity is present (it is indicated by the large chi-square). For this reason, the model should run with robust standard errors. Otherwise, although the coefficient estimates are unbiased, the estimates of the standard errors are.

```
. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of DoSAR

chi2(1)      =    19.58
Prob > chi2  =    0.0000
```

Table 9: Indication of Heteroskedasticity: Test conducted through STATA. The value of chi-square equals 19.58 which is not neglectable.

When the model runs with robust standard errors, the T values and the confidence intervals change, whereas the p-values and the coefficients do not change significantly (Table 10), and therefore, the conclusions drawn from running the model are still valid.

```
. reg DoSAR ConEra NuU Lc GdpG CostM2 PiCm Pcm Tu VScr Ext Cu, robust

Linear regression                               Number of obs =      89
                                                F( 11,    77) =    33.42
                                                Prob > F      =    0.0000
                                                R-squared     =    0.8462
                                                Root MSE     =    58.506
```

DoSAR	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
ConEra	56.59666	15.89568	3.56	0.001	24.94431	88.24901
NuU	.0761036	.09402	0.81	0.421	-.1111141	.2633214
Lc	14.32749	12.77215	1.12	0.265	-11.10511	39.7601
GdpG	2.740354	2.508586	1.09	0.278	-2.254879	7.735586
CostM2	-.0064307	.0042907	-1.50	0.138	-.0149746	.0021133
PiCm	-6.82166	.6761066	-10.09	0.000	-8.16796	-5.47536
Pcm	3.507657	17.96572	0.20	0.846	-32.26666	39.28198
Tu	11.16138	16.4153	0.68	0.499	-21.52565	43.84841
VScr	-118.1395	140.9975	-0.84	0.405	-398.9014	162.6224
Ext	-10.10934	11.24616	-0.90	0.372	-32.50332	12.28463
Cu	6.895591	11.95669	0.58	0.566	-16.91323	30.70441
_cons	863.5094	97.67768	8.84	0.000	669.0083	1058.011

Table 10: Regression Run with Robust Standard Errors.

Concerning the R-squared for this model, the result equals 0.8462 which is a relatively a good number (the closer to 1, the more reliable the model is). Fundamentally, this means that the independent variables included in the model explain a large amount of the dependent variable.

When not including variables 10 and 11 (extension and change in use, respectively) the R-Squared was 0.8449 which implies that the first option of the model is maybe better, although the difference in the value is minor. Generally, when minor changes occur on the information of a model, it is wise to look at the adjusted R-squared values for both alternative forms of the model. In the first case, the adjusted R-squared value was 0.8242, whereas the adjusted R-squared value was 0.8272 for the second option. This shows that the second option of the model, which omits the variables 'cu' and 'ext', is more precise, although the change in the value of the adjusted R-squared is minor again (also see table below).

Version of the Model	Independent Variables	R-Squared	Adjusted R-Squared	Better Model
WITH Variables 'Change in Use' (cu) and 'Extension' (ext)	11	0.8462	0.8242	
WITHOUT Variables 'Change in Use' (cu) and 'Extension' (ext)	9	0.8449	<b>0.8272</b>	<b>X</b>

Table 11: Comparison of the R-Squared

It is important to note that more variables could be included in the model in the future in order to seek a higher value of the R-squared. **Deeper research, more data collection and more observations could add up more variables** that can be proven statistically significant as well.

Finally, the correlation among all independent variables was tested and checked in order to verify that **no multicollinearity had occurred**. The results of this test are shown in the following table.

	ConEra	NuU	Lc	GdpG	CostM2	PiCm	Pcm	Tu	Vscr	Ext	Cu
ConEra	1.0000										
NuU	0.1152	1.0000									
Lc	0.1483	0.3311	1.0000								
GdpG	0.1922	-0.1227	-0.0979	1.0000							
CostM2	0.0617	0.1829	0.0353	-0.0200	1.0000						
PiCm	-0.0396	-0.0003	-0.0841	-0.6397	0.0514	1.0000					
Pcm	0.1741	-0.0549	0.1798	0.0862	-0.0139	-0.0894	1.0000				
Tu	0.2449	0.2271	0.3391	-0.0211	0.0445	-0.0439	-0.0480	1.0000			
Vscr	0.0463	0.4217	0.1831	-0.3500	0.2238	0.3399	0.0365	0.1005	1.0000		
Ext	-0.1933	0.0544	-0.1652	0.0008	0.1567	0.0523	-0.0499	-0.1500	0.2223	1.0000	
Cu	0.2581	0.1769	0.4040	0.0082	0.0532	-0.1082	0.0992	0.5566	0.0067	-0.1034	1.0000

Table 12: Correlation among all Independent Variables (the closer to 0, the weaker the relationship).



## **6.6 Testing: Alternative Versions of the Regression Analysis Model**

### 6.6.1 Overview

There are different alternatives of the model. Each version was examined in order to compare their R-Squared and to conclude which model is the best (most efficient) for the purposes of this study. Firstly, the model (version A) was examined in its initial form (total of 12 independent variables, including 'age'). Then, the model (version B) was examined after dropping the independent variable 'age', as it partly describes the dependent variable. Version B was the preferred version of the model that was used and examined thoroughly, with both the descriptive statistics and the overall analysis found in the previous section.

Then, the same model was examined (version C), but the independent variable 'viability index' was broken down into its four categories (total of 14 independent variables instead of 11). This regression was an experiment to test whether it is better to test the viability index against the DoSAR as a cumulative score, or as four separate scores reflecting the four categories which constitute the viability index.

The final experiment (version D) included a new dependent variable which reflected the success of the reuse in terms of both its futurity and sustainable behavior, run against the remaining independent variables (10). This regression was an experiment to test whether the viability index could exist in the dependent variable. Therefore, an adaptation's success would not depend solely on the relation between the active years of each use, but it would depend on its viability as well.

The different runs are summed up in the following table and work-diagram:

<b>Version of the Model</b>	<b>Dependent Variable</b>	<b>Number of Independent Variables</b>	<b>Independent Variables</b>
A	(DoSAR)	12	Age Con. Era Number of Usual Users Location GDP Growth Rate Real Cost/m <sup>2</sup> Price Ind. of Constr. Mat. Primary Con. Mat. Type of Use Viability Index Extension Change in Use
B	(DoSAR)	11	Con. Era Number of Usual Users Location GDP Growth Rate Real Cost/m <sup>2</sup> Price Ind. of Constr. Mat. Primary Con. Mat. Type of Use Viability Index Extension Change in Use
C	(DoSAR)	14	Age Con. Era Number of Usual Users Location GDP Growth Rate Real Cost/m <sup>2</sup> Price Ind. of Constr. Mat. Primary Con. Mat. Type of Use Environmental Score Management Score History and Culture Score Social Score Extension Change in Use
D	(DoSAR*VScr)	10	Con. Era Number of Usual Users Location GDP Growth Rate Real Cost/m <sup>2</sup> Price Ind. of Constr. Mat. Primary Con. Mat. Type of Use Extension Change in Use

Table 13: Different Versions of the Model

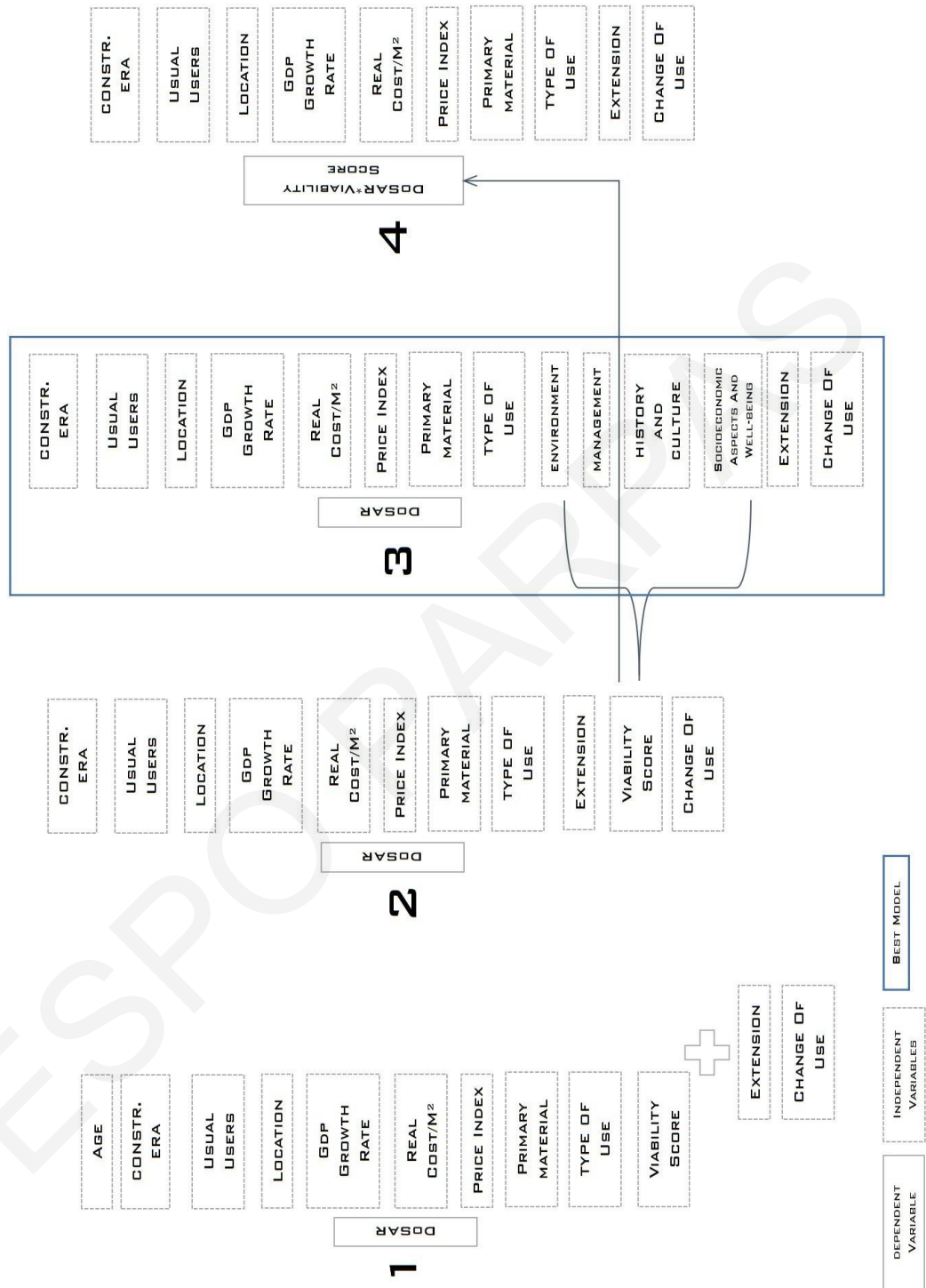


Fig. 23: Different Versions of the Model: Work Diagram

### 6.6.2 Testing Outcome

After testing all four versions of the model, it was evident that the best model (best Adjusted R-Squared) was the third one (Version C). An important aspect of this model is that the p-value of the construction era is found to be 0.051 which makes it less important statistically than when the initial model (Version B) was used for the purposes of this dissertation. What this means essentially is that **only** the price index of the construction materials at the time of the conversion has high explanatory power over the DoSAR. The findings can be found in the following table in short, and more extensively in the work sheet created in Stata, attached in Appendix E.

Version of the Model	Dependent Variable	Independent Variables	Statistically important Ind. Variables	Adjusted R-Squared
A	(DoSAR)	12	<b>2</b> (age, Price Ind. of Constr. Mat.)	0.8497
B	(DoSAR)	11	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8242
<b>C</b>	(DoSAR)	14	<b>1</b> (Price Ind. of Constr. Mat.)	<b>0.8262</b>
D	(DoSAR*VScr)	10	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.6907

Table 14: Comparison of the Different Versions of the Model

A new experiment was conducted after establishing i. the best model (Version C) and ii. the variables with the highest explanatory power over the DoSAR: the model's Version C was tested several times: each time the least important variable was left out until only three statistically important variables were left in the model for the run. The purpose of this exercise was to check whether the dropping of certain statistically insignificant had a drastic effect on

the model, and more specifically, if by dropping one variable, others would gain importance. As the following table and the Stata working sheet in Appendix F show, by dropping out certain variables with minor statistical importance, two more variables present high explanatory power over the DoSAR. These are the 'Construction Era' and the 'Management Score'. However, it turns out that the most effective (or realistic) model is the one containing 6 independent variables (Version C9) and not the one containing only the three independent variables with p-values lower than 0.05, as the following table shows.

Version of the Model	Dependent Variable	Independent Variables	Statistically important Ind. Variables	Adjusted R-Squared
C	(DoSAR)	14	<b>1</b> (Price Ind. of Constr. Mat.)	0.8262
C2	(DoSAR)	13	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8285
C3	(DoSAR)	12	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8308
C4	(DoSAR)	11	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8324
C5	(DoSAR)	10	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8345
C6	(DoSAR)	9	<b>3</b> (Con.era, Price Ind. of Constr. Mat., Mngm. Score)	0.8360
C7	(DoSAR)	8	<b>3</b> (Con.era, Price Ind. of Constr. Mat., Mngm. Score)	0.8372
C8	(DoSAR)	7	<b>3</b> (Con.era, Price Ind. of Constr. Mat., Mngm. Score)	0.8377
<b>C9</b>	(DoSAR)	6	<b>3</b> (Con.era, Price Ind. of Constr. Mat., Mngm. Score)	<b>0.8379</b>
C10	(DoSAR)	5	<b>3</b> (Con.era, Price Ind. of Constr. Mat., Mngm. Score)	0.8369
C11	(DoSAR)	4	<b>3</b> (Con.era, Price Ind. of Constr. Mat., Mngm. Score)	0.8353
C12	(DoSAR)	3	<b>3</b> (Con.era, Price Ind. of Constr. Mat., Mngm. Score)	0.8335

Table 15: Comparison of the Different Versions of Model C

The same experiment with dropping out the least statistically important variables was conducted for the initial model (Version B) and the results are slightly different than the experiments in the previous table. As the following table and Stata working sheet-appendix G show, by dropping out certain variables with minor statistical importance, no major changes occur in the results. However, it turns out that the most effective (or realistic) model is the one containing 7 independent variables (Version B5), and not the one containing only the two independent variables with p-values lower than 0.05, as the following table shows.

Version of the Model	Dependent Variable	Independent Variables	Statistically important Ind. Variables	Adjusted R-Squared
B	(DoSAR)	11	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8242
B2	(DoSAR)	10	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8264
B3	(DoSAR)	9	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8281
B4	(DoSAR)	8	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8298
<b>B5</b>	(DoSAR)	7	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	<b>0.8309</b> (R-Sq.: 0.8443)
B6	(DoSAR)	6	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8309 (R-Sq.: 0.8424)
B7	(DoSAR)	5	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8301
B8	(DoSAR)	4	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8302
B9	(DoSAR)	3	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8268
B10	(DoSAR)	2	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8236

Table 16: Comparison of the Different Versions of Model B

After comparing the best version of Version B to the best version of Version C (which is fundamentally, the best version of the model), it is evident that Version C9 is the most reliable model containing the least possible independent variables (six instead of seven in version B5). There are some differences concerning the independent variables that participate in each version. Both versions include the independent variables: Construction Era, GDP Growth Rate and Price Index of the Primary Materials. Notably, in Version C9 the management and social scores surface. These two variables exist in the Viability index participating in B5 Version. Considering that the Adjusted R-Squared of model C9 is higher than the one of B5, it is a possibility that the Viability index should be included, and dealt with, not as a cumulative score but broken down in its four categories. The comparison is shown in the following table:

<b>Version of the Model</b>	<b>Dependent Variable</b>	<b>Independent Variables</b>	<b>Statistically important Ind. Variables</b>	<b>Adjusted R-Squared</b>
B5	(DoSAR)	<b>7</b> (Con. Era, Location, GDP Gr. Rate, Real Cost/m <sup>2</sup> , Price Ind. of Constr. Mat., Type of Use, Viability Index.)	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	0.8309
<b>C9</b>	(DoSAR)	<b>6</b> (Con. Era, GDP Gr. Rate, Price Ind. of Mngm. Score, Socio-economic Score, Extension)	<b>3</b> (Con.era, Price Ind. of Constr. Mat., Mngm. Score)	<b>0.8379</b>

Table 17: Comparison between the Best Version of Models B and C

However, when the model used for this dissertation (Version B) was tested using the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC), which are both good indicators for model selection, the findings are in agreement with the results of the t-tests and f-tests that are included in

Section 6.5.1. More specifically, the minimum value<sup>14</sup> of each criterion was achieved when the regression ran only with the two independent variables with the highest explanatory power over the DoSAR, as the following table indicates. The extended testing is attached in Appendix G.

<b>Version of the Model</b>	<b>Dependent Variable</b>	<b>Independent Variables</b>	<b>Statistically important Ind. Variables</b>	<b>AIC, BIC</b>
B	(DoSAR)	<b>11</b>	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	987.99, 1017.85
<b>B10</b>	(DoSAR)	<b>2</b> (Con. Era, Price Ind. of Constr. Mat.)	<b>2</b> (Con.era, Price Ind. of Constr. Mat.)	980.12, <b>987.59</b>

Table 18: Model B: Testing with the AIC and BIC Criteria

The same process was followed for Version C and the results indicate that the minimum values for both the AIC and BIC were achieved when three independent variables participated in the model in contrast to the initial t-test of the first run of Model C which revealed that only the Price Index of the Construction Materials is statistically significant. However, the findings show that omitting some insignificant independent variables can rise the statistical importance of other variables, while at the same time can strengthen the model. The results are included in brief in the following table, and extended in Appendix F.

Table 19: Model C: Testing with the AIC and BIC Criteria

<b>Version of the Model</b>	<b>Dependent Variable</b>	<b>Independent Variables</b>	<b>Statistically important Ind. Variables</b>	<b>AIC, BIC</b>
C	(DoSAR)	<b>15</b>	<b>1</b> (Price Ind. of Constr. Mat.)	989.42, 1026.75
<b>C12</b>	(DoSAR)	<b>3</b> (Con. Era, Price Ind. of Constr. Mat.)	<b>3</b> (Con.era, Price Ind. of Constr. Mat., Mngm. Score)	<b>975.95, 985.9</b>

<sup>14</sup> Lower values in both the AIC and BIC reflect more possibilities that a model should be considered as the true model.



## 7. DISCUSSION AND CONCLUSIONS

### 7.1 Independent Variables' Correlation with the Degree of a Successful Adaptive Reuse

Some expectations were met concerning the possible correlations between the dependent variable and the independent ones. Some of the most anticipated findings included the price index of the construction materials at the time of the adaptation and the property's location. The former was expected to be negatively correlated with the degree of a successful reuse, whereas the latter was expected to be positively correlated with it. The predictions came true: as far as the price index is concerned, it was verified through the analysis that the hardest it is to purchase construction materials (meaning high prices), less money is spent for quality construction works. Although it is not a rule, growth and cultural prosperity are noted when the market is at its best.

On a different note, the location of a possible asset was expected to be positively correlated (the input was 1 for urban context). In real estate circles, location holds a prominent role. Moreover, since the urban contexts always include more expensive properties, not only was a strong correlation expected to surface through this project, but also a positive one. However, the statistical significance of the location was not verified, yet the positive relation has prevailed. This means that, in Cyprus, adaptive reuse stands a greater chance of bringing continuation in the life of the existing fabric when realized in urban contexts.

On the contrary, some independent variables were expected to be positively correlated with the success of an adapted unit, but this was proven untrue. For example, one would expect that a good score achieved through the

viability index would be beneficial for a potential adaptation. However, the DoSAR and the viability index are negatively correlated, which is a surprising finding. A possible explanation for this is a somewhat outdated and unchanged mentality of the people in Cyprus that does not prioritize viability. Nevertheless, when testing the four different categories of the manufactured rating system in terms of how they correlate with the DoSAR, an interesting finding stands out. Of the four categories, only the actions towards the users' wellbeing and the socioeconomic fabric of the area are positively correlated with the success of an adaptation. Contrarily enough, utilitarian actions, the actions towards the environment, and the actions towards the historical and cultural elements have a negative relationship with the success of a reuse. This equally verifies and rejects the findings of Basha, whose analysis showed that adaptively reused buildings and socio-cultural aspects are positively correlated.

Similarly, the real cost of conversion (per sq. meter) was also expected to be positively correlated with the DoSAR. However, the two are found to be negatively correlated which signifies a paradox; more capital put into a redevelopment could potentially lead to more extensive works, thus extending a unit's useful life. In Cyprus, it is found that less expensive actions have more possibilities for successful adaptations.

In continuation of the talk around economics, the GDP growth rate was expected to be positively correlated with the DoSAR which was proven to be true, as economic growth can spark development schemes, and lead a community to thrive.

Another interesting finding of the analysis revolves around the physical configuration of the units. Although it was expected that newer extensions would

accelerate an adapted building's success as it would serve the changing needs of the users/owners, the regressions revealed a negative relationship between the two. The question here is whether users feel that an addition would distort the authentic character of the unit. Moreover, sometimes the construction of an extension implies that more users will be introduced in the units. However, through the examples in the dissertation's sample, it was evident that the success of the adaptation did not lie on a possible extension, nor on the number of the usual users. At the same time, the relationship between the DoSAR and whether an extension was built was negative, whereas the DoSAR and the number of usual users were positively correlated. The more people a unit accommodates, the more successful an adaptation is, according to this dissertation's findings. In a sense, this is true considering cases when a public use is introduced into an inactive shell, and it is proven extremely successful, thus extending the unit's life continuously.

Moreover, the rest of the binary variables were all positively correlated with the dependent variable, and each revealed important information concerning the descriptive statistics of the model. First, the construction era of the unit, which is one of the most highly significant variables of the model, shows that it is approximately 57% more probable that a building constructed after the colonization of the island can be successfully reused. The colonization of the island happened to co-exist with the emergence of more technologies in construction, and it is possible that buildings constructed after that breaking point reflect works of better quality, thus raising the unit's life span.

As far as the introduced use itself is concerned, the variable's coefficient shows that it is more possible for a strategy involving a residential use to exceed in time (statistically, 3% more possible, which is not extreme). At the same time,

a strategy involving the continuation of the former use (for example residential to residential, retail to retail etc) is more likely to achieve a successful adaptive reuse (statistically, 7% more possible).

Finally, according to the coefficient of the primary construction material, it is 7% more possible for buildings with concrete as a primary material to be successfully adaptively reused. This finding, although not very indicative due to the coefficient's low number, argues that non-organic materials have a minor advantage over the alternative when it comes to successfully implemented strategies, thus reflecting the better mechanical properties of these materials.

DESPO PARRAS

## **7.2 Independent Variables' Statistical Importance**

### 7.2.1 Predictions' Overturn

Some scholars (e.g. Worster, 1993; Dong et al., 2011; Throsby, 2003) argue that sometimes economic matters take the lead when sustainable development is at stake. In accordance with the belief that adaptive reuse is of a sustainable nature and that it incorporates some aspects of sustainability, this research shows that economics is not the main driving force when it comes to a successful reuse or sustainable re-development.

Some independent variables that were expected to hold a prominent role were proven not important statistically. First, surprisingly, the expectation that the real cost of the adaptation is one of the most important contributors to a successful reuse (high costs, or more capital could indicate works of better quality) was overturned. Of course, although cost is a good indicator, one could argue that the real cost is irrelevant if not seen in relation to the units' size or state of obsolescence. For this reason, the independent variable reflecting capital was translated into the real cost per square meter in order to minimize possible biased errors.

By the same token, the good economic background is also not a good indicator (GDP Growth Rate) according to the analysis. On the other hand, the price index of the construction materials at the time of the conversion, reflecting economic matters, is the best regressor of the model, having the highest explanatory power over the DoSAR.

Furthermore, the number of usual users was also highly considered as a main factor to a successful reuse; the number of the usual users could imply the

project's success, popularity, usability, and permeability, mostly in cases where the introduced use was of a public nature. However, this variable was proven to offer no statistical contribution to the model.

As far as the location is concerned, the findings were really interesting. The location of a property not only is of minor statistical significance, but it could also be omitted from the model entirely, and this claim is based on the several f-tests conducted to test whether some variables could be omitted from the model. Because the estimated values show that the location (rural or an urban context) is not a strong indicator for a successful adaptive reuse, it would be interesting to examine if the realtors' catch phrase "Location-Location-Location" is overturned or established scientifically via further investigation.

#### 7.2.2 Original Materiality

It is worth mentioning the estimates concerning the primary construction material of the building. The original materiality of the structures was discussed in terms of a potential restoration and reuse. More specifically, some peers do not see potential sustainable effects from the reuse of concrete buildings dating back from the modern era with the most frequent argument being the material's poor behavior concerning ecological, bioclimatic and mechanical aspects. There is a misperception that the reuse of concrete buildings cannot represent beneficial efforts towards a more viable future. However, it is argued that a hidden meaning can be found in the reuse of concrete buildings concerning social, historical and cultural matters. These matters are often overlooked and underestimated which is in agreement with Volberg (2015) and Kresevic (2015).

By the same token, the original materiality, featuring vernacular techniques and being indigenous, usually reflects a more sustainable nature. However, the case study presented in Appendix B shows that the living conditions concerning thermal comfort are not optimal. Also, it is true that contemporary materials have an advantage over the traditional materials and techniques, as they provide more possibilities especially when it comes to adaptations of much older units. Similar to the non-organic materials, organic materials also have mechanical or technical drawbacks even though they are greener with a minimized ecological footprint. Nonetheless, after the run of the model, the findings show that the original material does not hold a significant role with regards to the continuation of the building's life and the expansion of its life-span (although the coefficient estimate shows that non-organic materials have a minor advantage over organic materials).

What is highlighted here is that the general picture should be considered when it comes to a decision of reusing a building or a complex. The primary material should not be seen as a barrier nor should some materials or whole structures be overlooked because their original status is not 'green' enough if other aspects of sustainability are dealt with and met (Volberg, 2015; Kresevic, 2015). The results of this empirical study provide solid proof for this argument. For this reason, interdisciplinary approaches<sup>15</sup> involving stakeholders from different backgrounds are important as the weighting of the parameters and the assessment of each case study requires serious work.

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<sup>15</sup> This is also praised by Ochendorf (2015), Pyburn (2005)

### 7.2.3 Viability Index

The general picture of the sustainable attitude expressed by the manufactured index is not proven to be statistically important when it comes to the success of adaptively reusing a unit, but it is significant enough not to be omitted from the model. Moreover, it would be interesting to see how the DoSAR correlates with each of the index's variables separately, if the four categories of the index are further broken down into their components leading to thirty-four more variables. For example, interesting aspects to correlate with the DoSAR could be the introduction of renewable sources of energy, the existence of maintenance plans for the surrounding context, the proximity to public transport, or the possibility for direct access to open spaces where social encounters are promoted. However, the large number of the index's indicators could be proven to be a significant barrier for the model's reliability, as the number of the independent variables would increase dramatically and the model would not be efficient.

However, when the dependent variable was regressed on the four different categories constituting the viability index separately, the results changed dramatically. What is notable here is that two of the four categories cannot be omitted from the model, and these are the management of the property after the construction works of the adaptation and the actions towards the socioeconomic fabric and wellbeing. Although they are not the most important regressors, they have high explanatory power over the degree of a successful adaptive reuse. What is signified here is that maintenance plans and monitoring for all involved features (facades, surrounding area, mechanical and structural systems) are needed for the expansion of the involved units' life spans. Furthermore, the



socioeconomic aspect gains importance, whereas its significance was lost when the viability index participated in the model as a cumulative score.

Moreover, by breaking down the viability index into its four categories, the best version of the model was established, in which the 'construction era' loses its high explanatory power over the dependent variable. Therefore, with the initial run of the upgraded model (Version C), the only variable with high explanatory variable over the DoSAR is the 'Price Index of the Construction Materials'. Although the statistical significance of the remaining independent variables remains at similar levels, the values of both R-squared and adjusted R-squared increase from 0.8462 to 0.8539 and from 0.8242 to 0.8262 respectively. The increase is minor, but the altered model (Version C) is more efficient. This does not imply that this version should replace the original one in future applications as the results coming from model testing are only indicative and concern this dissertation: more data entries, different case studies and a new sample size could change the findings. Consequently, in future applications for a more expanded research, the same procedure and similar testing will take place.

Furthermore, the realization that breaking down the viability index, which is essentially a score, into categories, provides tectonic contribution when discussing popular rating systems which base the assessments on cumulative scores. It could be more beneficial for the affected re-developments if the different scores from the different categories were examined separately and not as a totality. The evaluation could be carried out by scientific committees that weighed all given information for each case study. This is to highlight that decision making and project assessments are indeed case sensitive.

#### 7.2.4 Matters of Culture, History and Society

The bibliography suggests that, generally, people despite their different ethnicities and social or demographic background are willing to pay a significant amount of money in order for a certain historic structure or a place of cultural significance to be safeguarded. Therefore, people seem to value their history and, consequently, they hold on to their roots and the built or mental connections to their past. Surprisingly enough, this research shows that when a building features local architectural characteristic, it is less likely to be adapted so that it can continue to flourish through time and therefore, it stands fewer chances of providing a continuation to the surrounding historical and built context. Of course, this study is built upon the case of Cyprus as it includes local examples and therefore, the findings only represent the local picture in both physical and social contexts. Henceforth, it is possible that in other regions, the independent variable connected with cultural and historical matters would be positively correlated with the DoSAR (for example the case studies brought into the discussion through the bibliographical review concerning regions in Europe (e.g. Spain) and Asia (e.g. China)).

Moreover, the findings provided by the 'construction era' highlight that regardless of the historic, or cultural significance of a unit, the most successful adaptations derived from more formal actions, and from times when new technological means provided more possibilities for the construction itself.

#### 7.2.5. Operational Matters

By the same token, it is proven than the use itself is of an irrelevant nature. To a successful adaptive reuse, the type of the introduced use holds a minor

importance. At the first stages of this research it was expected that a public use – reflecting greater usability and movement within the existing built fabric – would allow for more active years which was proven to be true. Changes to the operational aspects of the reuse, such as change of the old use and its replacement with a proposed new function, or the extension of the unit to provide more options in operation or greater comfort, were proven to contribute little to the model. Although, the 'Change in Use' and the 'Type of Use' can be omitted from the model entirely, the 'extension' variable should not. The statistical tests revealed that it should be included in the model although it does not explain much of the dependent variable.

#### 7.2.6 The Human Factor?

At a final stage, one should consider another variable which cannot be measured easily and cannot be predicted: the human factor. Maybe the human factor and each person's uniqueness, free will and distinctive way of thinking in decision making should be considered as an important parameter. However, contemporary trends are difficult to quantify and insert into a model like the one developed for this dissertation.

It is also likely that the mentality characterizing a certain demographic or social or ethnic group can affect the success of a newly introduced use. In fashion, they say "one day you are in, the next you are out"<sup>16</sup> which means that trends change all the time. Fashionable uses and places come and disappear. People seem to progress and change habits and interests, and therefore, when it comes to an introduced use in an existing shell, the choice itself could be equally proven

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<sup>16</sup> Heidi Klum, model/entrepreneur/presenter

to be both a success or a failure. The trends in the general market, as it is in fashion, could influence a given owner's decision to put an existing structure into use over building something new. This statement is also argued through the works of Bullen (2007) and Bullen and Love (2011).

When applying certain methodologies (e.g. the willingness to pay model), it is crucial to investigate human trends as well. Some case studies showcased earlier in this paper dealt with people's background, where researchers circulated questionnaires in order to make observations and draw conclusions concerning the demographics. This mode of collecting data is, undoubtedly, fundamental to establishing findings and considering the human factor at the same time.

Finally, with regards to the 'human factor', human behavior and actions can be unpredictable. There can be cases when two buildings stand side by side, and yet show different signs of success concerning their continuous life. This is a common a phenomenon, and it is highlighted in examples B and D included in Appendix D. These two buildings are contradictory neighbors, as they exist within the same physical and historical context, feature similar architectural forms, follow similar approaches to the reuse, and have the same original and proposed uses. However, of the two 'neighbors', only one continues to thrive, whereas the second has ceased its operation. Consequently, it is noted here that, sometimes, inadequate management, or unpredictable happenings in life can occur, negatively affecting a unit's ownership status, or the operation itself. Such variables cannot be quantified or analyzed easily.

### **7.3 Assessment Methodology**

For the reasons stated above, the research could come to more conclusions based on wider observations as opposed to observations that come from a single island. Other methodologies were criticized earlier in the text because they were site-specific (such as the WTP model, building assessment methods) and did not allow the evaluation of multiple examples at the same time. On the contrary, there has been an effort to achieve this through this dissertation. The simultaneous multi-case study can produce more valid and robust results with an effect on statistical significance, and can indicate certain behaviors and trends in a general context. In this way, stakeholders will have an overall picture and will be able to act by developing not only an individual site, but areas within a wider context as well. On the other hand, as far as the conclusions are concerned, the implementation of the proposed methodology could be considered site-specific in relation to the fact that it was only applied in the case of Cyprus. For this reason, it is important to compare these results with results from other examples in the western world or the east, so that the trends prevailing outside the small island of Cyprus can be investigated. Henceforth, there will be a larger database, which is of statistical significance, since the results will be more valid and, also, the conclusions would be drawn more universally.

The cross-comparison of the results would start an interesting discussion on various topics such as the mentality of different regions (geographically or mentally) on re-use and redevelopment towards a more sustainable attitude. For instance, this research showed that higher scores, achieved through a viability assessment tool concerning and revolving around aspects of sustainable

development and living, do not affect the index indicating a successful reuse. The viability score does not hold statistical significance nor does it have a positive correlation with the DoSAR index. A positive correlation could designate both a positive attitude towards a more viable future and a sensible mentality. Of course, this observation is Cypriot-based. What would the picture be if the sample contributing to the regression analysis came from the UK or Germany or the most prominent states in the USA, where redevelopment policies are considered to be oriented towards sustainable living (meaning eco-friendly, socioeconomically viable) and developments?

Furthermore, as far as some rating systems are concerned, these should not be criticized plainly; they have managed to introduce users and owners into a mode of thinking where sustainable living and ideas revolving around well-being take the lead. The application of some popular rating systems makes users and owners evaluate some points and, in a way, to also evaluate their mentality and current mode of living. This is something that should be praised. The application of these systems is noble in this way as long as it is not aimed at eco-branding, as Parr discusses. A critique on the systems should occur though, particularly concerning their development. It is noted through appendix B that some points on the check lists, especially in LEED, are market-oriented and they reflect larger regions. The application of such systems in small societies and closed markets, like for instance in Cyprus, brings to surface some problematic observations. There are indeed some paradoxes in the lists themselves, and some points seem to be obtained relatively easily. On the other hand, it should be acknowledged that these rating systems have been developed in large countries with large markets and stock and therefore, the systems' development reflects these roots. In this

case, it is really important that popular rating systems are frequently assessed by scientific committees.

It has been an important aspect of this dissertation to not merely evaluate a building and its sustainable behavior. On the contrary, the viability score achieved through the buildings' assessment did not aim to remotely put a grade because the importance does not lie on the achieved scores themselves. The binary checklist, used for the evaluation in order to form an important independent variable of the model, was aiming to establish negative or positive behavior and trends towards a more viable future. High scores reflected positive attitudes and a more sensible mentality which should then be correlated with the success of the second use introduced to an inactive shell.

## **7.4 Stakeholders' Stance**

Lastly, at the end of the analysis lies the question of how the state, stakeholders or policy makers can make a good use of the observations or findings and put them to practice. Development and re-development plans are frequently discussed in planning committees and local community circles. Hence, it is crucial for all the stakeholders to acknowledge all aspects of a potential rehabilitation – whether this concerns a single unit, a complex or a neighborhood. Existing paradigms and justified scientific results could provide food for thought or contribute boldly to the process of decision making.

More specifically, the statistical tests conducted in projects like this one can provide robust remarks with a significant effect on the decision of which unit to adaptively put into good use providing new purpose. The index produced here showcases the degree of a successful reuse and the expansion of the building's life span through adaptive reuse in correlation with several independent variables. It could hold a prominent role in evaluating potentially exploitable, units. The results of such an analysis could contribute to better resource management, improved cost and benefit processes, more effective assessments, and well-justified decisions that take into consideration a multitude of intersecting matters. However, these findings are indicative and can never act as the only ingredient for future policies targeting successful adaptations: new trends, the growing needs, and the changing context into which the policies are developed reflect the need for constant evaluation and research.



## **7.5 Limitations and Possible Future Development**

The adaptive reuse of existing built shells has vast possibilities. The proposed methodology outlined, developed and discussed in the previous sections provides good grounds for assessing the success of such possibilities. However, the greatest limitation of this project is that the findings concern, and have been based on, the case of Cyprus. For this reason, the expansion of the sample could provide observations and conclusions that are universal. The future development of this research could include the introduction of more case studies coming from different regions, the alteration of the existing independent variables, or the introduction of new variables surfacing while processing the data and through a potentially new phase of data collection.

Concerning the methodology itself, the tool proposed in this project has just started to make an appearance in the realms of architecture and in developing policies affecting regeneration strategies. Multiple regression analysis and statistical tests involving existing examples and case studies in the built world could be applied in several other aspects of architectural design such as the success of a public open space, the viability of the buildings' configuration within their surrounding contexts, or the behavioral patterns of users depending on specific formalistic or functional characteristics. Nevertheless, the quantification of certain characteristics or variables is a challenging task which is an apparent barrier in several projects similar to the ones included in sections 2.2 and 2.3.

With regards to this dissertation, the quantification of certain intangible variables (e.g the success itself, or traces of history) was possible and therefore, both tangible and intangible quantities participated in exploring the potential

success of an adaptation. Similar approaches could be implemented in other relevant projects or future exploration of the practice of adaptive reuse.

To sum, some important components surfacing from the discussion in this chapter are included in the SWOT Analysis table below:

<b>SWOT Analysis on the "Empirical Evidence of a Successful, Sustainability-driven Adaptive Reuse"</b>			
S (Strengths)	W (Weaknesses)	O (Opportunities)	T (Threats)
<ul style="list-style-type: none"> <li>-Exploration of a new field</li> <li>-Possibility to be applied elsewhere</li> <li>-Data collection for large samples</li> <li>-Quantification of intangible quantities</li> </ul>	<ul style="list-style-type: none"> <li>-Data only from Cyprus</li> <li>-Pilot study: the formula is implemented for the first time</li> </ul>	<ul style="list-style-type: none"> <li>-Further Investigation of other areas</li> <li>-Future policies</li> <li>-Re-evaluation</li> </ul>	<ul style="list-style-type: none"> <li>-Inclusion of abstract notions</li> <li>-Findings to be taken as a norm</li> <li>-Methods of quantification</li> </ul>

Table 20: SWOT Analysis of the Project

## 8. FINAL REFLECTIONS

The aim of this project was to establish the most important variables to a successful adaptive reuse towards a viable future. First, in order to determine the criteria that affect a viable adaptation the most, it was important to define the meaning of success. For this reason, a formula was manufactured describing the relationship between two given phases of a unit and the active years of a use. This formula was adopted as the dependent variable of the multiple regression model, and it was directly connected with the notion of futurity that both fields of preservation and sustainability talk about and praise. Fundamentally, what **is perceived as a successful adaptation are the cases where a built unit's life is extended further through the respective reuse** (strategy implemented) **with the introduced use acting as a trigger in achieving this.**

Secondly, establishing the variables that contribute the most to a successful adaptation was both a crucial and a difficult task. Variables emanating from all fields of economics, ecology, society and preservation ethics were selected as most appropriate to be tested through the model for the multiple regression analysis.

After running the model, what stands out is that the most significant variables are the price index of the construction materials at the time of the construction works serving the adaptation and the construction era of the original structure. On the one hand, the price index is highly connected with economic factors, which enhances the general idea that money is one of the main components, not only for the viability of a development but for the decision-making process as well. On the other hand, the construction era (based on the way it was defined and used

for this dissertation) is highly connected with the legislative background and the development in Cyprus. Consequently, it is highlighted here that the decision making (after weighing formal and bureaucratic processes as opposed to informal and silent actions), can hugely affect the success of a potential adapted building.

However, these findings do not reject the fact that other variables are vital to a successful adaptive reuse. This dissertation proves that other, diverse factors also participate in establishing a project's success, though their significance is less. The best version of the model (C9), which surfaced after performing tests, reveals that the most reliable regression is the one containing not only the two best regressors ('Construction Era' and 'Price index of the Construction Materials'), but the one including the 'GDP growth rate', 'Management', 'Socioeconomics and Well-being', and 'Extension', as well. More specifically, not only should 'management' be included in the model for a more reliable analysis, but it also becomes a highly significant regressor once the variables with the less explanatory power over the DoSAR are dropped. The management of a project, and in this case the management and care of a unit after an action occurred to re-establish its useful life, is firmly connected with operational matters. When **such matters are addressed, it is possible for an adaptively reused unit to be elevated and to succeed in operation.**

Ultimately, there can be economic, physical, legislative and utilitarian variables that affect an adaptation positively, though their contributions to achieving viable practices are not equal. A vital matter emphasized through this project is that economic factors are not the sole drivers of adaptive reuse. Economics taking the lead could be both limiting and intimidating, especially in the decision-making process of whether to reuse a unit or not.

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DESPO PARRPAS

## 10. APPENDICES

### 10.1 Appendix A

Note: The paper included in appendix A revolves around the application of two of the most popular rating systems (LEED and BREEAM) to a vernacular building in a mountainous village in Cyprus. This was an experiment to study the two systems and to investigate the degree of coverage over matters around sustainability. The conclusions drawn from this study provided crucial information mostly on the shortcomings of the rating systems concerning a given community and its fabric. In addition, the investigation provided food for thought for the selection of the criteria participating in the analysis and the development of the evaluation index used for this dissertation.

#### **Adaptive Reuse of Existing Vernacular Shells in Askas, Cyprus, and its Sustainable Effects on the Community Fabric; a Case Study**

##### Introduction

Sustainability is a complex notion that has been given a lot of definitions and it has been introduced into a lot of different realms. However, its complexity does not lie in the fact that it is difficult to comprehend but in the realization that it consists of and it is connected to a lot of different aspects, namely economy, ecology and society – which are its three main pillars. By adaptively reusing an old or even historic shell, all of the three conditions are addressed. Moreover, adaptive reuse brings a lot of contrasting notions together, producing an interesting blend of old and new elements, vernacular and contemporary materials and methods of construction, and of course symbolism. The aim of this study is to visit an

adaptively reused unit within a small-scaled community in Askas, Cyprus and to investigate whether the new proposed use, that of a youth club, is characterized by eco-friendly and social features of sustainable development. In order to evaluate this case of rehabilitation in terms of its sustainable character, two of the most popular rating systems, LEED and BREEAM, were selected and implemented to measure performance in accordance with their stated criteria.

### The Case Study

The unit selected for this study was built in the early 18<sup>th</sup> century and the primary use until recently was residential, while the primary construction material used in the construction of the majority of the buildings in the village was river bed rock. Askas is characterized by a uniqueness of vernacular architectural elements, cohesiveness and compactness of its urban fabric. During those older times, when this small unit (80 square meters) was built, a significant amount of the space was dedicated to secondary uses, such as storage and even as stables. Therefore, it was really challenging for the rehabilitation process to be respectful first, to the surrounding complex by providing the means and contributing to a sustainable development, and second, to the building itself, as it provided important information concerning the wisdom behind the construction methods, use of material and its successful integration with the surrounding built and natural environment.

The two rating systems that were selected for implementation on the case study were the LEED for Existing Buildings and the BREEAM for Renovation. Respectively, the scores achieved were 83/110, meaning Platinum ranking, and 85% meaning Very Good. The scores by themselves reflect satisfactory results although some points were relatively easily achieved as they revolve around

certain energy-efficient or eco-friendly product purchase. This could be translated as the systems' weakness or it could be read as the systems' decision to focus on the green aspects of the current market and trends rather than on the substantive sustainable behavior of a building.

#### Critique on the implementation of the rating systems

Although the rating systems used for this study deal with a number of sustainable design strategies and practices, their implementation shows that a lot of important criteria pertaining to the sustainable development of a listed building or a small-scaled community are not included. For example, when a vernacular historic building is adaptively reused, the renovation of its form and function impacts the scale of the whole of the community and its built fabric. The analysis of the unit and the conclusions drawn upon the implementation of the two rating systems led to the proposals included in the following discussion.

First, the initiative to upkeep a historic building and to introduce a new use complements the effort to conserve land and to reduce urban sprawl. This is really important in the development of a small traditional village where the identity of the place in its authentic local context holds the primary responsibility for its uniqueness and identification. Rypkema believes that a development can only be sustainable if historic preservation is part of the game (Rypkema, 2005). Along these lines, Botta proposes that cultural sustainability should be included in the keystones of sustainability, as preservation efforts and the continued presence of cultural objects helps respect a building's unique character (Botta, 2005).

Other criteria that could be included into the checklists of the rating systems and that could help a building gain more appreciation in terms of its sustainable character could be the maintenance of its scale within the surrounding context if it

is considered to be viable and practical; the continuation of the cohesiveness that characterizes the entire built fabric of the community providing the possibility for its historical and aesthetic value to be preserved; and the use and reuse of local and indigenous materials and construction techniques. The latter point addresses all aspects of sustainability while being in agreement with the international charters and declarations on historic preservation.

Moreover, the addition of a new use in a former residential building provides the foundations for the opening of new work opportunities, promotes economic growth in a variety of scales and, also, it revolves around the individual user as it proposes a new space for social interaction within a community where the population, and especially the youth, is decreasing. Rypkema argues that the adaptive reuse of the historic fabric can promote a community's gainful participation into economic globalization (Rypkema, 2005). Adding to this, Botta introduces the institutional aspect of sustainability where the participation and involvement of the inhabitants should be promoted (Botta, 2005).

## Conclusion

When an adaptively reused building is under assessment using a rating system, an opportunity is presented to the owners or users to think about all the strategies they could implement to achieve a more sustainable building environmental behavior. Although, the rating systems point to some interesting tectonic contributions that could be made or that refocus the users towards upgrading their buildings, they sometimes confuse green or eco-friendly practices with sustainability. A more beneficial effort for a whole community complex would be the development, or upgrading, of the rating systems so as to have universal application and to include more criteria – not only for the buildings as units, but



also for their surrounding context. Moreover, the complexes they belong to should address more sustainable design issues, encompassing a wider scope and definition of sustainability, especially with regards to social category. Furthermore, according to Ferris, the rating systems should be able to be applied more comprehensively to historical buildings; most of the rating systems, in their current state, do not encourage users to adaptively reuse existing buildings and it seems that there is an advantage in new constructions over historic renovation and adaptive reuse (Ferris, 2010).

#### Notes

1. The use of the same materials and techniques during the rehabilitation process is mentioned in all Charter of Faro (2005), Granada's Declaration (1985), Amsterdam's Declaration (1975), ICOMOS Charter on the built Vernacular Heritage (1999) and Venice Charter (1964)

## **10.2 Appendix B**

Note: The paper included in appendix B revolves around the implementation of LEED and BREEAM to a vernacular building and the use of simulation technics to study the building's performance. This study acted as an experiment to compare the two systems, to investigate the degree of coverage over matters around sustainability, and to study the properties of certain materials and spatial configurations concerning the building's performance and bioclimatic character. The conclusions drawn from this study provided crucial information on bioclimatic design and helped to form the viability index used for this dissertation.

### **On the Restoration and Reuse of a Traditional House in Askas: An assessment through the use of both Evaluation Systems and Simulation Programs**

#### Statement of Purpose

The purpose of this work is multifaceted as it aims to evaluate a vernacular building of local technique and architecture that has been restored and to reach an optimal sustainable state. This will be achieved through the evaluation of the building using two of the most popular assessment systems – the use and comparison of which will bring to the surface possible loopholes of the systems and elements necessary for the most sustainable development possible. At the same time, a program will be simulated so that experiments can be made both to achieve a higher score in the assessment systems and to produce the best measurements on energy efficiency and bioclimatic design. The implementation of the systems as well as the transfer to simulation will be based on an existing building whose first use was residential. After the restoration, a youth centre was

proposed as the new use. Through the two different methods of assessment, there may be a sort of hierarchy as to the best combinations of construction methods, orientation, materiality, openings and general management which lead to a sustainable redevelopment.

### The Case Study: Facts and Concerns

The existing building that has been chosen is left in a desperate state and is unused for a few years, but for the purposes of this work, some assumptions are being cognizant. More specifically, the building is considered to have been renovated and maintained, based on current legislation and international regulations, and its current operation is as a youth center. This hypothetical case and the scenario of re-use is based on existing designs and suggestions belonging to the author and previously prepared for other purposes.

The building concerns a small residential unit in Askas village in Cyprus, which is a mountainous settlement. The small house has an area of 85.36 square meters including the open semi-covered spaces (the enclosed space is only 59 square meters). The unit is connected to two other small houses on the west and east sides. The fronts in the north and south are attached to the stone-paved paths that act as the main arteries through the whole traditional village.

As far as the rating systems are concerned, some of the specifications or check points of the systems are considered to be valid since it is a project that is not implemented. For example, product purchases or equipment with specific aids, furniture and building materials necessary to ensure a better score were some of the points that were considered to be met. Some other points concerning legislation or procedures relating to foreign countries could not be applied to the evaluation and were not taken into consideration.

## Application of the Evaluation Systems

When applying the two systems, an initial effort was made to get acquainted with the systems without making any calculations necessary for some of the points, like carbon dioxide emissions. In this first contact, taking into account the assumptions made previously, but without simulation and before making some more complex energy efficiency calculations, the LEED score was 68, which is synonymous with 'Gold' and the BREEAM equivalent was 71 which is synonymous with 'Very Good'. That is, taking into account the calculations, which would be more likely to result from program simulation, would be even higher. This may imply the loopholes that exist in such rating systems in order to achieve a relatively easy high score for the buildings. On the other hand, it can also indicate the weakness or perhaps the choice of rating systems to focus more on market-based issues than the environmental or general sustainability of a building.

In practice, when the evaluation was completed for both systems, the results obtained were very satisfactory and in particular the score achieved by the building was 83/110 for the LEED assessment system and 85.31% for the BREEAM which mean Platinum and Excellent respectively on the scale evaluation of each system. These specific values are well-suited and lead to the conclusion that an old building such as the one around which work is routed can be cost-effective not only in terms of resource and material management, but also in terms of energy efficiency if we talk about environmentally-friendly strategies and strategies that aim at a sustainable approach to space and services. In such cases, the results are encouraging. More specifically, the use and implementation of the two evaluation systems can be found in the notes below.

As for the comparison of some individual points of the two systems, BREEAM appears to be more meritorious, if one can say so, since when it refers

to percentages based on a percentage scale, the system gives different scores, eg 1-3, so that to distinguish the optimal model and not to answer yes / no by giving or removing a grade.

At this point, it is considered appropriate to make a small description of the two evaluation systems used for the purpose of this work. The reason for choosing these two systems is that they are widely known and are now the most popular rating systems in many countries.

The BREEAM Assessment System, where the acronym stands for the Building Research Establishment's Environmental Assessment Method, takes into account quantified characteristics or actions quantified and evaluated on the basis of sustainable development behavior. The categories of this system include general management, health, energy, transport, water management, materials, land use, ecology and pollution. The BREEAM rating ranges are "Unclassified", "Pass", "Good", "Very Good", "Excellent" and "Outstanding".

The LEED assessment system, the acronym of which means Leadership in Energy and Environmental Design, was developed by the United States Green Building Council. The categories included in this rating system are sustainable environments, water sufficiency, energy and air, materials and resources, indoor environment quality, innovation and planning. The rating ranges here are "Certified", "Silver", "Gold" and "Platinum".

The similarities and their differences are quite inevitable but also foreseeable. For example, compared to the LEED assessment system, BREEAM has more to offer on assessing more economic and social aspects of sustainable development. A table summarizing the main issues addressed by the two systems is in Annex I.

Both systems have different versions and each is applicable to different buildings of different data and features. For LEED, different versions are addressed to New Constructions, Existing Buildings, Interior Commercial Buildings, Shell and Home, Neighborhood Development and Residences. There is also a LEED version in Canada that is based on LEED for new constructions. For BREEAM, the different versions also apply to different countries. That is, there are different plans for the United Kingdom (BREEAM UK for new construction, BREEAM UK for renovation, Eco-houses - ECOhomes, BREEAM UK for communities, Codex for Sustainable Homes, BREEAM UK for buildings in use), and for Germany (BREEAM International for new construction, BREEAM International Renovation and Reconstruction, BREEAM International for Buildings in Use, BREEAM International for Communities).

The many different versions of the systems are a positive approach to building evaluation as it would be impossible to apply many of the points on individual cases from other countries. Since each system has been developed in a particular country then it makes sense to follow the requirements and regulations of the specific country. It would be ideal to have a system that can be applied everywhere, but since the values of some resolutions, regulations and laws vary from country to country, it would be better if a system could be adjusted for each country. Of course, BREEAM gives more choices concerning this issue and applies to more countries.

Both systems benefit from renewals and improvements once a year, as the systems themselves are evaluated and reviewed by various researchers and experts. In addition, both systems involve third-party evaluation for the assessment of both the buildings and developments.

Some points of the two systems make their use difficult worldwide because they cannot be applied in some cases. For example, in LEED under the Materials and Resources category and refers to wood used for various woodworking but equipment, wood should not come from a distance beyond a few kilometers. But the distance given as an example of the best condition is far greater than the total distance of the small island of Cyprus. Furthermore, given that the timber used in various constructions, especially the traditional buildings in our country, come from our own land, then this assessment point is not as helpful as an assessment measure here – only in much larger countries and markets.

In particular, the LEED guide states that the building materials or materials used for building alterations and upgrades or the materials to be used for furniture or even the furniture themselves should be transferred to the building site, transport by land or by sea, the distance to be covered shall not exceed 800 km. And they give a formula for calculating this distance which is: (distance to be covered on land / 3) + (distance to be covered in inland waterways / 2) + (distance to be covered by sea / 15) + (distance to be covered by other means) <800 Km. From the above formula, one can understand that some points from the evaluation system seem strange to be applied to the small country and the Cyprus market, provided that we assume that the materials used originate from the place (if the work is occupied with an old residential unit built with materials and expertise from the place itself).

As far as the BREEAM evaluation system is concerned, it could be criticized that no alternative transport means or other strategies relating to such facilities for the users of a building and for less environmental burden are included. In addition, it is important to include such points in an evaluation system as they could also act as a means of promoting another lifestyle or routine involving less

use of private cars or motorized vehicles for movements on a small-scale. In the case of the small residential unit in Askas where everything works on a small scale and where it is impossible to integrate cars into the traditional historical web, the promotion of displacements without polluting means it is innate. LEED system includes a point for alternative means of transport, and therefore, the building easily secured 15 units.

Generally, many of the points of the two systems put the process in a mode of thinking not only about what could be changed in a building / cluster of buildings in order to be more cost-effective and energy-sustainable, but also how could the process of reuse contribute to a larger scale in relation to market issues and society. Still, the systems themselves could be interpreted as a method of awakening and a source of advice for living more sustainably, and that alone is a legitimate effort. The use of certain rating systems forces the owners of a building to be more committed to the purpose of upgrading their building and to be less polluting and more environmentally friendly, even if sometimes the phraseology used is camouflaged by catchy words concerning sustainability and sustainable development.

After the two rating systems examined here were implemented and the traditional unit in Askas was assessed, it was proven that additional issues could be integrated in the two systems. These issues could address more aspects of sustainability, especially for development issues in relation to both the natural and built surrounding area, or the quality of life. Some examples of this could be: the scale of a building in sizes that are considered to be sustainable and practically without excess, the way uniformity is achieved through restoration and reuse, the positive outcomes to locality and the inhabitants of a region through the continuation of their history and identity, the use and application or the reuse of



local materials and techniques from the place that does not burden the aquatic or ecological footprint. Finally, another important aspect missing from the rating systems is the promotion of new gathering and social actions in an existing built fabric with the introduction of a new use that revolves around human progress and increasing needs.

### Transferring the Case Study in a Simulation Program

The simulation of the building was done through Autodesk Ecotect and Desktop Radiance programs with the first allowing thermal analysis, light analysis and carbon footprint, thermal and cooling benefits, and with the second displaying light levels in detail.

After the building was transferred, structured to meet the specific program's specifications and after its 'run', it turned out that the orientation of the building, as it emerged from the historical know-how and experience of the inhabitants, is optimal for the levels of natural lighting in the main spaces.

The lifestyle and daily routine of the inhabitants from older times are consistent with the results as obtained from the analysis. That is, the lower level of the dwelling that was most used as storage and auxiliary spaces, and did not need much light, is the darkest part of the building unit (see Annex III). The semi-open space on the lower level, on the contrary, collects more light as does the upper level, as well. The main floor space, although not the brightest area of the building, shows uniformity in the way natural light differs, which is again in line with the primary use of the particular room that was the venue for social gatherings. The semi-covered space on the south side of the main room at the upper level receives much more natural light. This confirms its use in older times, and this is established by the very definition of the word 'iliakos' (the room that receives

optimum sun light). The same phenomenon is noted at the semi-covered space on the lower level, which from the results always seems to gather higher values of natural lighting than the rest of the lower level. Moreover, the way that natural light enters seems to work best since most of the time the light diffuses evenly over the entire floor plan of that space.

An important outcome of the analysis is that the two largest spaces provided users with a uniform, non-dazzling lighting which is tiring to the eyes.

As far as the thermal analysis of the model is concerned, we can see from the results that the construction materials of the buildings in Askas and in most of the villages of mountainous Cyprus were chosen consciously. On the one hand, the river rock may not be the best possible material to ensure the most comfortable temperature conditions inside the buildings both in extremely cold and extremely hot days, but on the other hand, they lead to a situation that ensures a stable temperature without ups and downs. The results show that both in summer and winter the structure and spatial arrangement of the building are efficient in managing to maintain a constant temperature in all the different rooms.

As far as the hierarchy of the spaces and the layout of the plan is concerned, it appears from the simulation that the two main spaces for use by the family (as they were formed during the initial construction) ensure the highest temperatures (with a difference of one to three degrees) than the auxiliary spaces of the lowest level. Consequently, as one would expect, the upper level ensures the best living conditions.

The whole village of Askas is built on the natural slope of the south-facing mountain with a slight divergence to the east. The building itself, which is being evaluated for the purposes of this project, is built with a south orientation, that is, the two solar-rooms facing the south. But how would the results listed above

change, if the orientation of the building was changed? Below are the results of this experiment.

Analyzing a historic building with simulation in advanced programs and modern assessment systems can tell us a lot not only about the philosophy behind its initial construction, but also about the wisdom that can be attributed to the techniques and the choice of the materials.

In the case of the traditional settlement in Askas, the study of the small residential unit and its transfer to the Ecotect program gave interesting information on the choice of the orientation and the general layout of the premises.

When the ground plan was reversed by 180 °, the values for the natural light levels at the top level for a winter morning were 50-2754 Lux and for the lower level the values were 48-548 Lux. With the introduction of the solar room and the largest openings in the south, the values for lighting levels are 61-3163 Lux for the upper level and 50-656 Lux for the lower.

The corresponding rates for a summer morning in a reversed floor plan for the upper level were 248-4540 Lux. With the solar-room and larger openings in the south, the actual values for lighting levels for a summer morning are 540-63030 Lux for the upper level and 320-56020 for the lower level.

This investigation shows that levels in natural lighting values would be lower if the orientation was towards the north instead of the south. This may have been more desirable for summer conditions, but this is a specific case examining the behavior of a home in mountainous Cyprus where the winter is heavy. Therefore, lighting levels are both necessary and effective and this corresponds more to the real condition that characterizes the building, like its south orientation.

As far as the calculations for the temperature conditions are concerned, if the building was inversely oriented, the resulting values would vary by only one or

two degrees Celsius compared to an orientation towards the south giving the most desired results which are higher winter values and lower for the summer.

## Conclusions

It is proven here in this study that a vernacular structure resulting from empirical knowledge and the place's evolution can keep up with current regulations or today's trends related to sustainable practices. The restoration and reuse of the traditional settlement in Askas can show that it is not impossible to combine historic restoration with optimal conditions for sustainable development. Of course, the high ratings achieved once the two assessment systems had been implemented can be, on the one hand, encouraging in relation to bioclimatic operations, energy efficiency, green practices and the way it handles some social issues. On the other hand, the scenario might have progressed differently if the structure of the systems itself was intended for such re-use, and vice versa, the change in the scenario is also in the building itself and its management. The transfer of the building into a simulation program is a very helpful step to show how a bioclimatic building works. Through this exercise, apart from the results that came out to show in detail how the building works in the field of natural lighting and heating, an experiment was carried out in order to see if the traditional techniques and choices of the past had the desired effect, although, through this investigation, it was proven that the thermal comfort of such units is not optimal.

### 10.3 Appendix C

Case Studies: Completed Forms

DESPO PARRPAS

**1. PROFILE** 'Dromena'

1.1 ADDRESS: Strovolos Historic Core

1.2.1 YEAR OF CONSTRUCTION: 1921

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2010

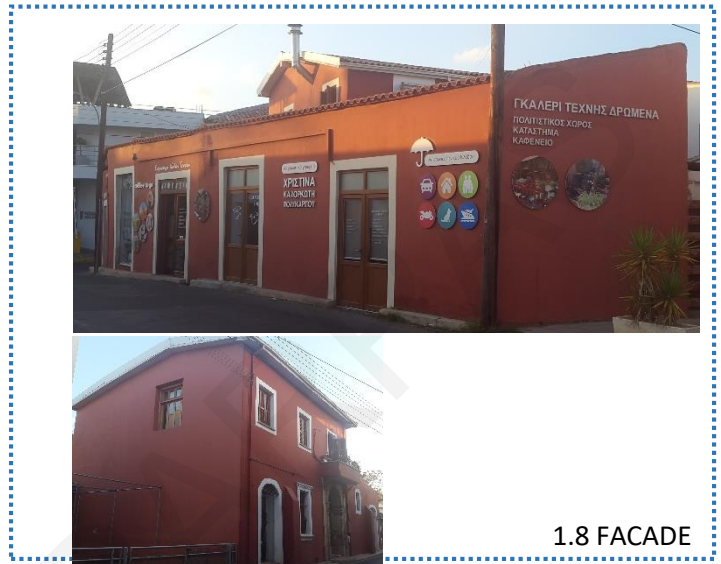
1.3.2 SECOND USE: Multi-Purpose

1.4 NUMBER OF USUAL USERS: 15

1.5 COVERED AREA (M<sup>2</sup>): 390

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 23/34



1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 50000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 1.318

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

**4. NOTES**

-No funds granted

-No extension

Contact Person: Mrs Youla

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	N
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	N	Energy efficient equipment	N
		SCORE	4/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>23</b>

## 1. PROFILE Residence and Workshop

1.1 ADDRESS: Tseri

1.2.1 YEAR OF CONSTRUCTION: 1930

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2011

1.3.2 SECOND USE: Multi-Purpose

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 315

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 19/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 150000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 103.64

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 0.321

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

## 4. NOTES

-With extension

Contact Person: Mrs Stalo



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	N
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	N	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	N
		SCORE	4/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	N
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>19</b>

## 1. PROFILE Library

1.1 ADDRESS: Tseri

1.2.1 YEAR OF CONSTRUCTION: 1934

1.2.2 FIRST USE: School

1.3.1 YEAR OF CONVERSION: 2011

1.3.2 SECOND USE: Library

1.4 NUMBER OF USUAL USERS: 10

1.5 COVERED AREA (M<sup>2</sup>): 93

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 22/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 90000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 103.64

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 0.321

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	N
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	5/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	N
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>22</b>

## 1. PROFILE 'Pastel' Art School

1.1 ADDRESS: Strovolos

1.2.1 YEAR OF CONSTRUCTION: 1915

1.2.2 FIRST USE: Mill

1.3.1 YEAR OF CONVERSION: 2011

1.3.2 SECOND USE: Art School

1.4 NUMBER OF USUAL USERS: 16

1.5 COVERED AREA (M<sup>2</sup>): 144

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 21/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 90000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 103.64

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 0.321

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>21</b>

## 1. PROFILE Municipal Library

1.1 ADDRESS: Strovolos

1.2.1 YEAR OF CONSTRUCTION: 1915

1.2.2 FIRST USE: School

1.3.1 YEAR OF CONVERSION: 2013

1.3.2 SECOND USE: Library

1.4 NUMBER OF USUAL USERS: 80

1.5 COVERED AREA (M<sup>2</sup>): 372

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 25/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 400000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 104.04

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -5.953

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination- Stone and Adobe bricks

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	10/11
<b>TOTAL SCORE</b>			<b>25</b>

## 1. PROFILE Cultural Center

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION: 1898

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2010

1.3.2 SECOND USE: Cultural Centre

1.4 NUMBER OF USUAL USERS: 30

1.5 COVERED AREA (M<sup>2</sup>): 550

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 26/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 350000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 1.318

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

## 4. NOTES



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>26</b>

## 1. PROFILE 'Artos'

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION: 1901

1.2.2 FIRST USE: Bakery

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Cultural Centre

1.4 NUMBER OF USUAL USERS: 25

1.5 COVERED AREA (M<sup>2</sup>): 600

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 24/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 400000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 77.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

## 4. NOTES

-With extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>24</b>

## 1. PROFILE Workshop

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION: 1951

1.2.2 FIRST USE: Warehouse

1.3.1 YEAR OF CONVERSION: 2012

1.3.2 SECOND USE: Workshop

1.4 NUMBER OF USUAL USERS: 10

1.5 COVERED AREA (M<sup>2</sup>): 78.3

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 21/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 200000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 104.46

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -3.158

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	N
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>21</b>

## 1. PROFILE Dentist Office

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION: 1928

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 1998

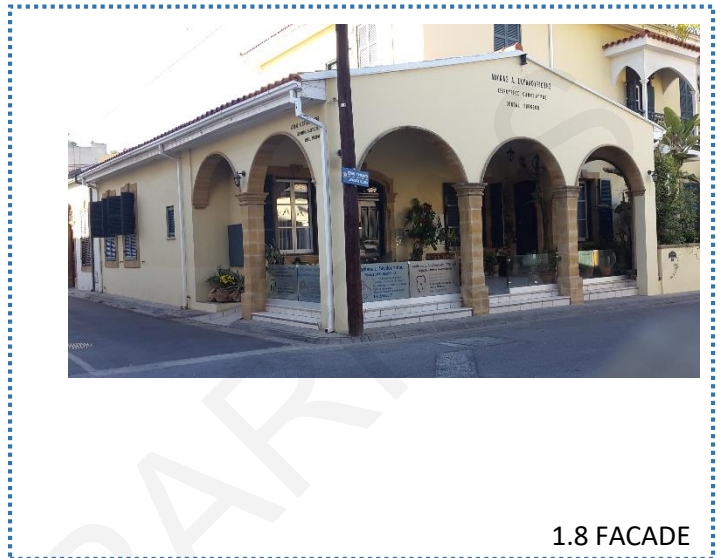
1.3.2 SECOND USE: Dentist's Office

1.4 NUMBER OF USUAL USERS: 15

1.5 COVERED AREA (M<sup>2</sup>): 143

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 19/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 200000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 66.74

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 5.236

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	N	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	N
		SCORE	4/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	N
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>19</b>

**1. PROFILE** Law Office

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION: 1930

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2006

1.3.2 SECOND USE: Law Office

1.4 NUMBER OF USUAL USERS: 12

1.5 COVERED AREA (M<sup>2</sup>): 286

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 20/34



1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 210000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 87.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.51

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

**4. NOTES**



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	N
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	N
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	N	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	N
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>20</b>

## 1. PROFILE Art School

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION: 1922

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Art School

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>):

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 26/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>26</b>

## 1. PROFILE ResArt

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION: 1910

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: Motel

1.4 NUMBER OF USUAL USERS: 8

1.5 COVERED AREA (M<sup>2</sup>): 246

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 25/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 400000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>25</b>

**1. PROFILE** Granazi

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION:

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION:

1.3.2 SECOND USE: Cafe

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>): 111

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 26/34



1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS:

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE:

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>26</b>

## 1. PROFILE 'Platanos'

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION: 1904

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION:

1.3.2 SECOND USE: Tavern

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>): 122

1.6 AREA: URBAN

1.7 VIABILITY SCORE:



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS:

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE:

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Bricks

## 4. NOTES



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter		Thermal insulation	
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)		Restoration of damaged vegetation	
Use of non-toxic paints, coats and materials		Energy efficient equipment	
		SCORE	
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric		Maintenance plan for the land/environment surrounding the built elements	
Maintenance plan (equipment and cleaning plan) for the interior elements		SCORE	
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)		Physical and conceptual connection to the cultural/historical context	
Harmonious co-existence of old and new elements (respect towards the existing materiality)		Option for documentation of the history lying on site	
Restoration of the existing built landscape elements		Respect for the existing fabric by new technologies installed	
Flexibility and adaptability to receive new uses and repairs		Designation of the building	
		SCORE	
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements		Possibility for new job-openings	
Provision of smoke control		Windows for daylight and outer views in all regularly occupied rooms	
Connection to communal/inclusive public spaces		Noise insulation	
Provision of parking spaces (cars, bicycles and motorcycles)		Provision of shaded spaces (trees and heat-absorbing materials)	
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow		Proximity to public transport (5 minutes on foot)	
		Sense of locality maintained	
		SCORE	
<b>TOTAL SCORE</b>			

## 1. PROFILE 'Achilleion'

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION:

1.2.2 FIRST USE:

1.3.1 YEAR OF CONVERSION:

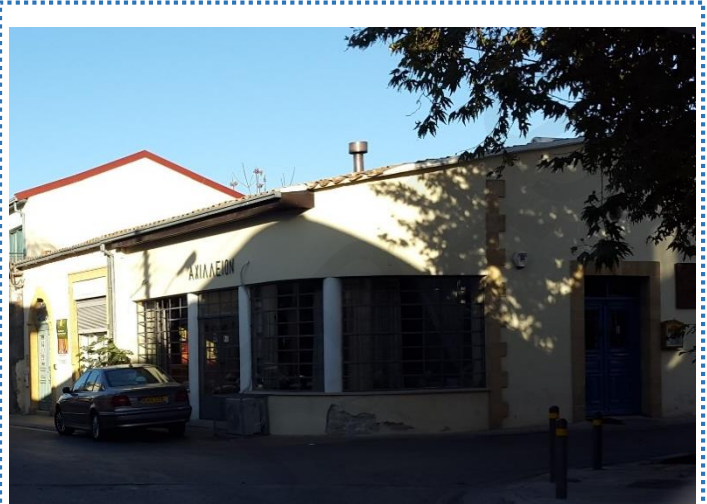
1.3.2 SECOND USE: Cafe

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>): 153

1.6 AREA: URBAN

1.7 VIABILITY SCORE:



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS:

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE:

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter		Thermal insulation	
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)		Restoration of damaged vegetation	
Use of non-toxic paints, coats and materials		Energy efficient equipment	
		SCORE	
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric		Maintenance plan for the land/environment surrounding the built elements	
Maintenance plan (equipment and cleaning plan) for the interior elements		SCORE	
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)		Physical and conceptual connection to the cultural/historical context	
Harmonious co-existence of old and new elements (respect towards the existing materiality)		Option for documentation of the history lying on site	
Restoration of the existing built landscape elements		Respect for the existing fabric by new technologies installed	
Flexibility and adaptability to receive new uses and repairs		Designation of the building	
		SCORE	
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements		Possibility for new job-openings	
Provision of smoke control		Windows for daylight and outer views in all regularly occupied rooms	
Connection to communal/inclusive public spaces		Noise insulation	
Provision of parking spaces (cars, bicycles and motorcycles)		Provision of shaded spaces (trees and heat-absorbing materials)	
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow		Proximity to public transport (5 minutes on foot)	
		Sense of locality maintained	
		SCORE	
<b>TOTAL SCORE</b>			

**1. PROFILE** Conference Venue

1.1 ADDRESS: Ayioi Omoloyites

1.2.1 YEAR OF CONSTRUCTION: 1909

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION:

1.3.2 SECOND USE: Conference venue

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>): 221

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 26/34



1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS:

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE:

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Bricks

**4. NOTES**

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>26</b>

## 1. PROFILE Nero

1.1 ADDRESS: Onasagorou, Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1915

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2013

1.3.2 SECOND USE: Coffee Shop

1.4 NUMBER OF USUAL USERS: 100

1.5 COVERED AREA (M<sup>2</sup>): 308

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 25/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 190000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 104.04

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -5.953

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Bricks

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>25</b>

## 1. PROFILE 'Pivo'

1.1 ADDRESS: Faneromeni, Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1910

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2015

1.3.2 SECOND USE: Brewery-Pub

1.4 NUMBER OF USUAL USERS: 30

1.5 COVERED AREA (M<sup>2</sup>): 310

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 24/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 300000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 102.27

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 1.679

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

## 4. NOTES

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	N	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>24</b>

## 1. PROFILE Cyta

1.1 ADDRESS: Onasagorou, Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1915

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2010

1.3.2 SECOND USE: Services

1.4 NUMBER OF USUAL USERS: 30

1.5 COVERED AREA (M<sup>2</sup>): 220

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 23/34



1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 220000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.00

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	N	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	2
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>23</b>

**1. PROFILE "Lions"**

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1888

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 1996

1.3.2 SECOND USE: Multi-Purpose

1.4 NUMBER OF USUAL USERS: 20

1.5 COVERED AREA (M<sup>2</sup>): 197

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 20/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (£): 55000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 65.08

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 1.333

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

**4. NOTES**

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	N	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	4/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	3
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>20</b>

**1. PROFILE** Cultural Heritage Centre

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1920

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 1993

1.3.2 SECOND USE: Offices

1.4 NUMBER OF USUAL USERS: 11

1.5 COVERED AREA (M<sup>2</sup>): 230

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 25/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 100000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 60.38

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 0.7

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>25</b>

**1. PROFILE** Cultural Centre

1.1 ADDRESS: Aglatzia

1.2.1 YEAR OF CONSTRUCTION:

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION:

1.3.2 SECOND USE: Cultural Centre

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>):

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS:

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE:

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe bricks

**4. NOTES**



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter		Thermal insulation	
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)		Restoration of damaged vegetation	
Use of non-toxic paints, coats and materials		Energy efficient equipment	
		SCORE	
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric		Maintenance plan for the land/environment surrounding the built elements	
Maintenance plan (equipment and cleaning plan) for the interior elements		SCORE	
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)		Physical and conceptual connection to the cultural/historical context	
Harmonious co-existence of old and new elements (respect towards the existing materiality)		Option for documentation of the history lying on site	
Restoration of the existing built landscape elements		Respect for the existing fabric by new technologies installed	
Flexibility and adaptability to receive new uses and repairs		Designation of the building	
		SCORE	
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements		Possibility for new job-openings	
Provision of smoke control		Windows for daylight and outer views in all regularly occupied rooms	
Connection to communal/inclusive public spaces		Noise insulation	
Provision of parking spaces (cars, bicycles and motorcycles)		Provision of shaded spaces (trees and heat-absorbing materials)	
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow		Proximity to public transport (5 minutes on foot)	
		Sense of locality maintained	
		SCORE	
<b>TOTAL SCORE</b>			

**1. PROFILE** 'To Steki tou Costi'

1.1 ADDRESS: Aglatzia

1.2.1 YEAR OF CONSTRUCTION:

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION:

1.3.2 SECOND USE: Tavern

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>):

1.6 AREA: RURAL

1.7 VIABILITY SCORE:

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS:

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE:

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL:

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter		Thermal insulation	
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)		Restoration of damaged vegetation	
Use of non-toxic paints, coats and materials		Energy efficient equipment	
		SCORE	
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric		Maintenance plan for the land/environment surrounding the built elements	
Maintenance plan (equipment and cleaning plan) for the interior elements		SCORE	
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)		Physical and conceptual connection to the cultural/historical context	
Harmonious co-existence of old and new elements (respect towards the existing materiality)		Option for documentation of the history lying on site	
Restoration of the existing built landscape elements		Respect for the existing fabric by new technologies installed	
Flexibility and adaptability to receive new uses and repairs		Designation of the building	
		SCORE	
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements		Possibility for new job-openings	
Provision of smoke control		Windows for daylight and outer views in all regularly occupied rooms	
Connection to communal/inclusive public spaces		Noise insulation	
Provision of parking spaces (cars, bicycles and motorcycles)		Provision of shaded spaces (trees and heat-absorbing materials)	
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow		Proximity to public transport (5 minutes on foot)	
		Sense of locality maintained	
		SCORE	
<b>TOTAL SCORE</b>			

**1. PROFILE** Corner Pub

1.1 ADDRESS: Strovolos

1.2.1 YEAR OF CONSTRUCTION: 1920

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 1987

1.3.2 SECOND USE: Pub

1.4 NUMBER OF USUAL USERS: 35

1.5 COVERED AREA (M<sup>2</sup>): 340

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 20/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (£): 20000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 46.05

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 7.065

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Bricks

**4. NOTES**

-With extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	N	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	N	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	N
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	N
		SCORE	4/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>20</b>

**1. PROFILE** Octana

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION:

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 1999

1.3.2 SECOND USE: Food Services

1.4 NUMBER OF USUAL USERS: 35

1.5 COVERED AREA (M<sup>2</sup>):

1.6 AREA: URBAN

1.7 VIABILITY SCORE:

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 64.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.829

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

**4. NOTES**

-With extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter		Thermal insulation	
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)		Restoration of damaged vegetation	
Use of non-toxic paints, coats and materials		Energy efficient equipment	
		SCORE	
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric		Maintenance plan for the land/environment surrounding the built elements	
Maintenance plan (equipment and cleaning plan) for the interior elements		SCORE	
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)		Physical and conceptual connection to the cultural/historical context	
Harmonious co-existence of old and new elements (respect towards the existing materiality)		Option for documentation of the history lying on site	
Restoration of the existing built landscape elements		Respect for the existing fabric by new technologies installed	
Flexibility and adaptability to receive new uses and repairs		Designation of the building	
		SCORE	
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements		Possibility for new job-openings	
Provision of smoke control		Windows for daylight and outer views in all regularly occupied rooms	
Connection to communal/inclusive public spaces		Noise insulation	
Provision of parking spaces (cars, bicycles and motorcycles)		Provision of shaded spaces (trees and heat-absorbing materials)	
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow		Proximity to public transport (5 minutes on foot)	
		Sense of locality maintained	
		SCORE	
<b>TOTAL SCORE</b>			

**1. PROFILE** Babylon

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION:

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 1993

1.3.2 SECOND USE: Pub

1.4 NUMBER OF USUAL USERS: 30

1.5 COVERED AREA (M<sup>2</sup>):

1.6 AREA: URBAN

1.7 VIABILITY SCORE:

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 60.38

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 0.7

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination

**4. NOTES**



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter		Thermal insulation	
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)		Restoration of damaged vegetation	
Use of non-toxic paints, coats and materials		Energy efficient equipment	
		SCORE	
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric		Maintenance plan for the land/environment surrounding the built elements	
Maintenance plan (equipment and cleaning plan) for the interior elements		SCORE	
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)		Physical and conceptual connection to the cultural/historical context	
Harmonious co-existence of old and new elements (respect towards the existing materiality)		Option for documentation of the history lying on site	
Restoration of the existing built landscape elements		Respect for the existing fabric by new technologies installed	
Flexibility and adaptability to receive new uses and repairs		Designation of the building	
		SCORE	
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements		Possibility for new job-openings	
Provision of smoke control		Windows for daylight and outer views in all regularly occupied rooms	
Connection to communal/inclusive public spaces		Noise insulation	
Provision of parking spaces (cars, bicycles and motorcycles)		Provision of shaded spaces (trees and heat-absorbing materials)	
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow		Proximity to public transport (5 minutes on foot)	
		Sense of locality maintained	
		SCORE	
<b>TOTAL SCORE</b>			

## 1. PROFILE 'Aroma Vanilias'

1.1 ADDRESS: Strovolos

1.2.1 YEAR OF CONSTRUCTION: 1955

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2015

1.3.2 SECOND USE: Confectionary

1.4 NUMBER OF USUAL USERS: 25

1.5 COVERED AREA (M<sup>2</sup>): 95

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 20/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 100000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 102.27

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 1.679

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Bricks

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	N
		SCORE	4/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	N
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>20</b>

**1. PROFILE** Scaraveo

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION:

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION:

1.3.2 SECOND USE: Pub

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>):

1.6 AREA: URBAN

1.7 VIABILITY SCORE:

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 60.38

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 0.7

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	N	Energy efficient equipment	
		SCORE	
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	N	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements		SCORE	
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	N
		SCORE	4/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	N	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			

**1. PROFILE** Plato's

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1890

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 1998

1.3.2 SECOND USE: Pub

1.4 NUMBER OF USUAL USERS: 35

1.5 COVERED AREA (M<sup>2</sup>): 270

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€):

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 66.74

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 5.236

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	N
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>24</b>

## 1. PROFILE

1.1 ADDRESS: Faneromeni, Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1919

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 1976

1.3.2 SECOND USE: Clothes Store

1.4 NUMBER OF USUAL USERS: 15

1.5 COVERED AREA (M<sup>2</sup>): 139

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 14/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (£): 10000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 24.41

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 20.266

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Walls

## 4. NOTES

-Contact Person: Mrs Androula



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	N	Energy efficient equipment	N
		SCORE	4/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	N	SCORE	1/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	N	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	N
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	4/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	5/11
<b>TOTAL SCORE</b>			<b>14</b>

**1. PROFILE** Spartan Bags

1.1 ADDRESS: Ifestou ,Larnaca

1.2.1 YEAR OF CONSTRUCTION: 1938

1.2.2 FIRST USE: offices

1.3.1 YEAR OF CONVERSION: 1987

1.3.2 SECOND USE: Store

1.4 NUMBER OF USUAL USERS: 20

1.5 COVERED AREA (M<sup>2</sup>): 60

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 12/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (£): 200

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 46.05

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 7.065

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Concrete

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	N	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	N	Installation of water meter, cooling tower, domestic hot water	N
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	N	Energy efficient equipment	Y
		SCORE	1/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	N	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	N	SCORE	1/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	N	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	N
		SCORE	4/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>12</b>

**1. PROFILE** Café tis Chrysantis

1.1 ADDRESS: Ifestou ,Larnaca

1.2.1 YEAR OF CONSTRUCTION: 1921

1.2.2 FIRST USE: multi-purpose

1.3.1 YEAR OF CONVERSION: 2011

1.3.2 SECOND USE: Coffee shop

1.4 NUMBER OF USUAL USERS: 35

1.5 COVERED AREA (M<sup>2</sup>): 68

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 28/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 125000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 103.64

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 0.321

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Walls

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>28</b>

**1. PROFILE 'Artokouto'**

1.1 ADDRESS: Ifestou ,Larnaca

1.2.1 YEAR OF CONSTRUCTION: 1921

1.2.2 FIRST USE: multi-purpose

1.3.1 YEAR OF CONVERSION: 2012

1.3.2 SECOND USE: Art Space

1.4 NUMBER OF USUAL USERS: 17

1.5 COVERED AREA (M<sup>2</sup>): 100

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 27/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 115000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 104.46

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -3.158

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Walls

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>27</b>

**1. PROFILE** Alevromilos

1.1 ADDRESS: Athienou

1.2.1 YEAR OF CONSTRUCTION: 1900

1.2.2 FIRST USE: Mill

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Cultural

1.4 NUMBER OF USUAL USERS: 5

1.5 COVERED AREA (M<sup>2</sup>): 100

1.6 AREA: RURAL

1.7 VIABILITY SCORE: .../34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 400000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Walls

**4. NOTES**



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter		Thermal insulation	N
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	
		SCORE	/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control		Windows for daylight and outer views in all regularly occupied rooms	
Connection to communal/inclusive public spaces		Noise insulation	
Provision of parking spaces (cars, bicycles and motorcycles)		Provision of shaded spaces (trees and heat-absorbing materials)	
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	
		Sense of locality maintained	Y
		SCORE	/11
<b>TOTAL SCORE</b>			

## 1. PROFILE

1.1 ADDRESS: Athienou

1.2.1 YEAR OF CONSTRUCTION:

1.2.2 FIRST USE: residential

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: motel

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>):

1.6 AREA: RURAL

1.7 VIABILITY SCORE: .../34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 530000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL:

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter		Thermal insulation	N
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	
		SCORE	/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control		Windows for daylight and outer views in all regularly occupied rooms	
Connection to communal/inclusive public spaces		Noise insulation	
Provision of parking spaces (cars, bicycles and motorcycles)		Provision of shaded spaces (trees and heat-absorbing materials)	
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	
		Sense of locality maintained	Y
		SCORE	/11
<b>TOTAL SCORE</b>			

**1. PROFILE** Oikia Monahou Kallinikou

1.1 ADDRESS: Athienou

1.2.1 YEAR OF CONSTRUCTION:

1.2.2 FIRST USE: residential

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: museum

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>):

1.6 AREA: RURAL

1.7 VIABILITY SCORE: .../34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 540000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL:

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter		Thermal insulation	N
Minimum greenhouse emissions		Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems		Installation of water meter, cooling tower, domestic hot water	
Installation of energy/electricity meter and provision of maintenance equipment		Use of recycling policies	
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	
		SCORE	/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control		Windows for daylight and outer views in all regularly occupied rooms	
Connection to communal/inclusive public spaces		Noise insulation	
Provision of parking spaces (cars, bicycles and motorcycles)		Provision of shaded spaces (trees and heat-absorbing materials)	
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	
		Sense of locality maintained	Y
		SCORE	/11
<b>TOTAL SCORE</b>			

**1. PROFILE 'Arte'**

1.1 ADDRESS: Historic Centre, Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1915

1.2.2 FIRST USE: residential

1.3.1 YEAR OF CONVERSION: 1999

1.3.2 SECOND USE: Art Centre

1.4 NUMBER OF USUAL USERS:

1.5 COVERED AREA (M<sup>2</sup>): 612

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 21/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (£): 765000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 64.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.829

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

**4. NOTES**

-Contact Person: Mrs Christiana

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	4/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	Y
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	N
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>21</b>

**1. PROFILE** National Bank Offices

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1929

1.2.2 FIRST USE: Multi-purpose

1.3.1 YEAR OF CONVERSION: 2000

1.3.2 SECOND USE: Bank

1.4 NUMBER OF USUAL USERS: 125

1.5 COVERED AREA (M<sup>2</sup>): 775

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (£): 1240122

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 66.59

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 5.724

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

**4. NOTES**

-Contact Person: Mr Alecos



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>24</b>

**1. PROFILE ETEK**

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1810

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2000

1.3.2 SECOND USE: Offices

1.4 NUMBER OF USUAL USERS: 30

1.5 COVERED AREA (M<sup>2</sup>): 1700

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 28/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (£): 450000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 66.59

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 5.724

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone and Adobe Walls

**4. NOTES**

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	9/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	N	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>28</b>

**1. PROFILE** Charoupomiloi Laniti

1.1 ADDRESS: Limasol

1.2.1 YEAR OF CONSTRUCTION: 1950

1.2.2 FIRST USE: Industrial

1.3.1 YEAR OF CONVERSION: 2002

1.3.2 SECOND USE: Multi-Purpose

1.4 NUMBER OF USUAL USERS: 50

1.5 COVERED AREA (M<sup>2</sup>): 3000

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 25/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (£): 4000000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 70.05

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.399

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (stone&concrete)

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>25</b>

## 1. PROFILE

1.1 ADDRESS: Kaimakli

1.2.1 YEAR OF CONSTRUCTION: 1895

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2003

1.3.2 SECOND USE: Multi-purpose

1.4 NUMBER OF USUAL USERS: 3

1.5 COVERED AREA (M<sup>2</sup>): 270

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 250000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 73.26

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 2.475

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (stone&adobe walls)

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>24</b>

**1. PROFILE** Mouseia Pagkypriou

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1915

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2006

1.3.2 SECOND USE: Multi-purpose

1.4 NUMBER OF USUAL USERS: 30

1.5 COVERED AREA (M<sup>2</sup>):

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 1708600

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 87.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.51

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe walls

**4. NOTES**



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>24</b>

**1. PROFILE** Architectural Office

1.1 ADDRESS: Aglatzia

1.2.1 YEAR OF CONSTRUCTION: 1930

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2005

1.3.2 SECOND USE: Office

1.4 NUMBER OF USUAL USERS: 5

1.5 COVERED AREA (M<sup>2</sup>): 186

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 26/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 205000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 83.07

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.724

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe walls

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>26</b>

## 1. PROFILE

1.1 ADDRESS: Salamiou

1.2.1 YEAR OF CONSTRUCTION: 1900

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Tavern

1.4 NUMBER OF USUAL USERS: 19

1.5 COVERED AREA (M<sup>2</sup>): 400

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 255000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>23</b>

## 1. PROFILE Water Museum

1.1 ADDRESS: Tsiflikoudia, Limasol

1.2.1 YEAR OF CONSTRUCTION: 1930

1.2.2 FIRST USE: Infrastructure

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Museum

1.4 NUMBER OF USUAL USERS: 16

1.5 COVERED AREA (M<sup>2</sup>): 210

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (£): 300000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>23</b>

**1. PROFILE** Simvoulío Idatopromithias

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1928

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Offices

1.4 NUMBER OF USUAL USERS: 32

1.5 COVERED AREA (M<sup>2</sup>): 1100

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 20/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 3500000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

**4. NOTES**



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	N	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	4/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	N	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>20</b>

**1. PROFILE** Building Complex

1.1 ADDRESS: Limasol

1.2.1 YEAR OF CONSTRUCTION: 1883

1.2.2 FIRST USE: 'Hani'

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: Multi-purpose

1.4 NUMBER OF USUAL USERS: 17

1.5 COVERED AREA (M<sup>2</sup>): 800

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 26/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 770000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

**4. NOTES**

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>26</b>

## 1. PROFILE

1.1 ADDRESS: Limpia

1.2.1 YEAR OF CONSTRUCTION: 1900

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: Restaurant

1.4 NUMBER OF USUAL USERS: 15

1.5 COVERED AREA (M<sup>2</sup>): 218

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 274400

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>23</b>

## 1. PROFILE

1.1 ADDRESS: Sia

1.2.1 YEAR OF CONSTRUCTION: 1910

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Multi-purpose

1.4 NUMBER OF USUAL USERS: 15

1.5 COVERED AREA (M<sup>2</sup>): 115

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 20/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 273000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	5/11
<b>TOTAL SCORE</b>			<b>20</b>

**1. PROFILE** Leventio Museo

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1910

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Museum

1.4 NUMBER OF USUAL USERS: 50

1.5 COVERED AREA (M<sup>2</sup>): 2283

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (£): 3000000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

**4. NOTES**

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	N	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>24</b>

## 1. PROFILE

1.1 ADDRESS: Historic core, Paphos

1.2.1 YEAR OF CONSTRUCTION: 1911

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Offices

1.4 NUMBER OF USUAL USERS: 15

1.5 COVERED AREA (M<sup>2</sup>): 500

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 26/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 1000000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>26</b>

## 1. PROFILE

1.1 ADDRESS: Peristerona

1.2.1 YEAR OF CONSTRUCTION: 1914

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Cultural Centre

1.4 NUMBER OF USUAL USERS: 12

1.5 COVERED AREA (M<sup>2</sup>): 250

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 21/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 400

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe walls

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>21</b>

**1. PROFILE** research Centre of Science and technology in Archaeology

1.1 ADDRESS: Paphos

1.2.1 YEAR OF CONSTRUCTION: 1905

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Offices

1.4 NUMBER OF USUAL USERS: 17

1.5 COVERED AREA (M<sup>2</sup>): 570

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 25/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 750000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>25</b>

## 1. PROFILE CUT

1.1 ADDRESS: Limasol

1.2.1 YEAR OF CONSTRUCTION: 1895

1.2.2 FIRST USE: Institutional

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Educational

1.4 NUMBER OF USUAL USERS: 400

1.5 COVERED AREA (M<sup>2</sup>): 1294

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 28/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 3527183

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

## 4. NOTES

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	10/11
<b>TOTAL SCORE</b>			<b>28</b>

## 1. PROFILE Theatrical Museum Panos Solomonides

1.1 ADDRESS: Limasol

1.2.1 YEAR OF CONSTRUCTION: 1910,1958

1.2.2 FIRST USE: Industrial

1.3.1 YEAR OF CONVERSION: 2010

1.3.2 SECOND USE: Institutional

1.4 NUMBER OF USUAL USERS: 80

1.5 COVERED AREA (M<sup>2</sup>): 2500

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 25/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 2815378

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 1.318

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (Stone & Concrete)

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>25</b>

**1. PROFILE** Furniture Showroom&Architectural Office

1.1 ADDRESS: Limasol

1.2.1 YEAR OF CONSTRUCTION: 1900

1.2.2 FIRST USE: Multi-purpose

1.3.1 YEAR OF CONVERSION: 2010

1.3.2 SECOND USE: Multi-purpose

1.4 NUMBER OF USUAL USERS: 11

1.5 COVERED AREA (M<sup>2</sup>): 1100

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 21/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 500000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 1.318

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>21</b>

## 1. PROFILE Municipal Arts Centre

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1920

1.2.2 FIRST USE: Industrial

1.3.1 YEAR OF CONVERSION: 1933

1.3.2 SECOND USE: Cultural Centre

1.4 NUMBER OF USUAL USERS: 30

1.5 COVERED AREA (M<sup>2</sup>): 200

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 250000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 60.38

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 0.7

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (Stone & Concrete)

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>24</b>

**1. PROFILE** Chrysaliniotissa Kindergarden

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1908

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2003

1.3.2 SECOND USE: Educational

1.4 NUMBER OF USUAL USERS: 30

1.5 COVERED AREA (M<sup>2</sup>): 195

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 26/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 305000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 73.26

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 2.476

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

**4. NOTES**

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>26</b>

**1. PROFILE** Youth Centre

1.1 ADDRESS: Palourgiotissa

1.2.1 YEAR OF CONSTRUCTION: 1920

1.2.2 FIRST USE: Institutional

1.3.1 YEAR OF CONVERSION: 2005

1.3.2 SECOND USE: Cultural

1.4 NUMBER OF USUAL USERS: 35

1.5 COVERED AREA (M<sup>2</sup>): 700

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 25/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 640000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 83.07

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.724

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Limestone

**4. NOTES**

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	N
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	N
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>25</b>

**1. PROFILE** Seniors' Centre

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1927

1.2.2 FIRST USE: Institutional

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Cultural

1.4 NUMBER OF USUAL USERS: 110

1.5 COVERED AREA (M<sup>2</sup>): 800

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 27/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 2000000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91,94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Walls

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	Y
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	10/11
<b>TOTAL SCORE</b>			<b>27</b>

## 1. PROFILE

1.1 ADDRESS: Palouriotissa

1.2.1 YEAR OF CONSTRUCTION: 1950

1.2.2 FIRST USE: Commercial/market

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Cultural

1.4 NUMBER OF USUAL USERS: 10

1.5 COVERED AREA (M<sup>2</sup>): 740

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 21/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 709630

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91,94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (limestone & Concrete)

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	N
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>21</b>

## 1. PROFILE 'Milo'

1.1 ADDRESS: Kaimakli

1.2.1 YEAR OF CONSTRUCTION: 1925

1.2.2 FIRST USE: Industrial

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: Cultural

1.4 NUMBER OF USUAL USERS: 50

1.5 COVERED AREA (M<sup>2</sup>): 210

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 28/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (£): 395000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Walls

## 4. NOTES

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	Y
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	10/11
<b>TOTAL SCORE</b>			<b>28</b>

**1. PROFILE** British Council

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1925

1.2.2 FIRST USE: Industrial

1.3.1 YEAR OF CONVERSION: 2005

1.3.2 SECOND USE: Institutional

1.4 NUMBER OF USUAL USERS: 20

1.5 COVERED AREA (M<sup>2</sup>): 600

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 1000000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 83.07

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.724

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (Stone&Adobe Walls)

**4. NOTES**

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>24</b>

## 1. PROFILE

1.1 ADDRESS: Goudi

1.2.1 YEAR OF CONSTRUCTION: 1880

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2006

1.3.2 SECOND USE: b&b

1.4 NUMBER OF USUAL USERS: 5

1.5 COVERED AREA (M<sup>2</sup>): 93

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 20/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 150000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 87.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.51

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	5/11
<b>TOTAL SCORE</b>			<b>20</b>

## 1. PROFILE

1.1 ADDRESS: Lefkara

1.2.1 YEAR OF CONSTRUCTION: 1880

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: b&b

1.4 NUMBER OF USUAL USERS: 6

1.5 COVERED AREA (M<sup>2</sup>): 231

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 21/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 267128

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>21</b>

## 1. PROFILE

1.1 ADDRESS: Lefkara

1.2.1 YEAR OF CONSTRUCTION: 1910

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2006

1.3.2 SECOND USE: b&b

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 400

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 19/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (£): 105950

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 87.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.51

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone (Asbestos)

## 4. NOTES

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	5/11
<b>TOTAL SCORE</b>			<b>19</b>

## 1. PROFILE

1.1 ADDRESS: Lofou

1.2.1 YEAR OF CONSTRUCTION: 1900

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: b&b

1.4 NUMBER OF USUAL USERS: 10

1.5 COVERED AREA (M<sup>2</sup>): 1000

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 1700000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>24</b>

**1. PROFILE** Koumantaria Museum

1.1 ADDRESS: Zoopigi, Limasol

1.2.1 YEAR OF CONSTRUCTION: 1901

1.2.2 FIRST USE: Industrial

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: Museum

1.4 NUMBER OF USUAL USERS: 10

1.5 COVERED AREA (M<sup>2</sup>): 1478

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 2562564

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

**4. NOTES**

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	Y
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	9/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	N
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>23</b>

**1. PROFILE** Information Centre

1.1 ADDRESS: Kakopetria

1.2.1 YEAR OF CONSTRUCTION: 1858

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: Information Centre

1.4 NUMBER OF USUAL USERS: 12

1.5 COVERED AREA (M<sup>2</sup>): 230

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 48000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone & Adobe Walls

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>23</b>

**1. PROFILE** Environmental Education Centre

1.1 ADDRESS: Salamiou, Paphos

1.2.1 YEAR OF CONSTRUCTION: 1930

1.2.2 FIRST USE: Educational

1.3.1 YEAR OF CONVERSION: 2010

1.3.2 SECOND USE: Educational Centre

1.4 NUMBER OF USUAL USERS: 15

1.5 COVERED AREA (M<sup>2</sup>): 4000

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 735080

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 1.318

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

**4. NOTES**

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>23</b>

**1. PROFILE “vizantino”**

1.1 ADDRESS: Kalopanayiotis

1.2.1 YEAR OF CONSTRUCTION: 1910

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: B&B

1.4 NUMBER OF USUAL USERS: 10

1.5 COVERED AREA (M<sup>2</sup>): 300

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 19/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 750000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>19</b>

**1. PROFILE “Lavrentino”**

1.1 ADDRESS: Kalopanayiotis

1.2.1 YEAR OF CONSTRUCTION: 1800

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Services/coffee shp

1.4 NUMBER OF USUAL USERS: 10

1.5 COVERED AREA (M<sup>2</sup>): 300

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 19/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 750000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>19</b>

**1. PROFILE** Wagamama

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1950

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Restaurant

1.4 NUMBER OF USUAL USERS: 45

1.5 COVERED AREA (M<sup>2</sup>): 500

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 600000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	N
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>23</b>

**1. PROFILE** Visitors' Centre

1.1 ADDRESS: Troodos

1.2.1 YEAR OF CONSTRUCTION: 1936

1.2.2 FIRST USE: Educational

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Restaurant

1.4 NUMBER OF USUAL USERS: 20

1.5 COVERED AREA (M<sup>2</sup>): 355

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 26/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 109000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Cement Stone

**4. NOTES**



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	Y	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	9/11
<b>TOTAL SCORE</b>			<b>26</b>

## 1. PROFILE

1.1 ADDRESS: Lyssos

1.2.1 YEAR OF CONSTRUCTION: 1899

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2012

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 254

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 383330

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 104.46

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -3.158

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	N
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>23</b>

## 1. PROFILE

1.1 ADDRESS: Kathikas

1.2.1 YEAR OF CONSTRUCTION: 1905

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 174

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 150000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	Y
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	N
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>24</b>

## 1. PROFILE

1.1 ADDRESS: Amargetis

1.2.1 YEAR OF CONSTRUCTION: 1901

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 230

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 272500

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>23</b>

## 1. PROFILE

1.1 ADDRESS: Amargetis

1.2.1 YEAR OF CONSTRUCTION: 1900

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2002

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 2

1.5 COVERED AREA (M<sup>2</sup>): 147

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 150000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 70.05

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.399

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	Y
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>23</b>

## 1. PROFILE

1.1 ADDRESS: Amargetis

1.2.1 YEAR OF CONSTRUCTION: 1894

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2002

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 2

1.5 COVERED AREA (M<sup>2</sup>): 78

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (£): 100000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 70.05

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.399

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	Y
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>24</b>

**1. PROFILE** Architectural Lab Office

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1911

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2003

1.3.2 SECOND USE: Offices

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 432

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 21/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (£): 238555

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 73.26

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 2.476

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (Concrete& LimeStone)

**4. NOTES**

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>21</b>

**1. PROFILE** Exarhia Panayiou Tafu

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1890

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2006

1.3.2 SECOND USE: Religious Space

1.4 NUMBER OF USUAL USERS: 20

1.5 COVERED AREA (M<sup>2</sup>): 180

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 1719501

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 87.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.51

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (Adobe Walls& LimeStone)

**4. NOTES**

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>23</b>

## 1. PROFILE

1.1 ADDRESS: Askas

1.2.1 YEAR OF CONSTRUCTION: 1921

1.2.2 FIRST USE: Educational

1.3.1 YEAR OF CONVERSION: 2012

1.3.2 SECOND USE: Educational

1.4 NUMBER OF USUAL USERS: 12

1.5 COVERED AREA (M<sup>2</sup>): 153

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 6476521

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 104.46

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -3.158

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Walls

## 4. NOTES

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	N	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>23</b>

**1. PROFILE** St George Chapel

1.1 ADDRESS: Ayia Marina, Paphos

1.2.1 YEAR OF CONSTRUCTION: 1700

1.2.2 FIRST USE: Religious

1.3.1 YEAR OF CONVERSION: 2013

1.3.2 SECOND USE: Religious

1.4 NUMBER OF USUAL USERS: 10

1.5 COVERED AREA (M<sup>2</sup>): 36

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 20/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 51000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 104.04

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -5.953

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	N	Installation of water meter, cooling tower, domestic hot water	N
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	4/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>20</b>

**1. PROFILE** Youth Residences

1.1 ADDRESS: Historic Core, Limasol

1.2.1 YEAR OF CONSTRUCTION: 1924

1.2.2 FIRST USE: Multi-functional

1.3.1 YEAR OF CONVERSION: 2014

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 7

1.5 COVERED AREA (M<sup>2</sup>): 132

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 20/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 317355

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 105.09

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.531

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (Concrete & bricks & limestone)

**4. NOTES**

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	5/11
<b>TOTAL SCORE</b>			<b>20</b>

## 1. PROFILE

1.1 ADDRESS: Askas

1.2.1 YEAR OF CONSTRUCTION: 1892

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: Multi-functional

1.4 NUMBER OF USUAL USERS: 6

1.5 COVERED AREA (M<sup>2</sup>): 173

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 18/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 280000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: River Stone

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	Y
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	N	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	N
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	5/11
<b>TOTAL SCORE</b>			<b>18</b>

## 1. PROFILE 'Garage'

1.1 ADDRESS: Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1951

1.2.2 FIRST USE: Commercial

1.3.1 YEAR OF CONVERSION: 2016

1.3.2 SECOND USE: Cultural

1.4 NUMBER OF USUAL USERS: 15

1.5 COVERED AREA (M<sup>2</sup>): 137

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 22/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 72000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 103

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 1.7

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Concrete

## 4. NOTES



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	Y
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	N
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	N
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	N
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>22</b>

**1. PROFILE** Museum for Traditional Sewing and Crafts

1.1 ADDRESS: Lefkara

1.2.1 YEAR OF CONSTRUCTION: 1880

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 1989

1.3.2 SECOND USE: Museum

1.4 NUMBER OF USUAL USERS: 15

1.5 COVERED AREA (M<sup>2</sup>): 310

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 20/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 438000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 53.30

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 7.947

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	N
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	5/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>20</b>

## 1. PROFILE

1.1 ADDRESS: Pera Pedi

1.2.1 YEAR OF CONSTRUCTION: 1895

1.2.2 FIRST USE: Mill

1.3.1 YEAR OF CONVERSION: 2000

1.3.2 SECOND USE: Museum

1.4 NUMBER OF USUAL USERS: 10

1.5 COVERED AREA (M<sup>2</sup>): 110

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 18/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (£): 70000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 66.59

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 5.724

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	N
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	5/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	5/11
<b>TOTAL SCORE</b>			<b>18</b>

## 1. PROFILE

1.1 ADDRESS: Evrihou

1.2.1 YEAR OF CONSTRUCTION: 1910

1.2.2 FIRST USE: Infrastructure

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Museum

1.4 NUMBER OF USUAL USERS: 10

1.5 COVERED AREA (M<sup>2</sup>): 170

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 22/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 438000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: River Rock

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	N
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	7/11
<b>TOTAL SCORE</b>			<b>22</b>

## 1. PROFILE

1.1 ADDRESS: Pano Lefkara

1.2.1 YEAR OF CONSTRUCTION: 1894

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2000

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 3

1.5 COVERED AREA (M<sup>2</sup>): 200

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 20/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 200000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 66.59

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 5.724

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

-with extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	n
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	2/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	5/11
<b>TOTAL SCORE</b>			<b>20</b>

**1. PROFILE** A' Municipal Market

1.1 ADDRESS: Limasol

1.2.1 YEAR OF CONSTRUCTION: 1926

1.2.2 FIRST USE: Commercial

1.3.1 YEAR OF CONVERSION: 2003

1.3.2 SECOND USE: Multi-purpose

1.4 NUMBER OF USUAL USERS: 120

1.5 COVERED AREA (M<sup>2</sup>): 814

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 29/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (£): 1158192

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 73.26

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 2.476

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

**4. NOTES**

-with extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	Y	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	10/11
<b>TOTAL SCORE</b>			<b>29</b>

## 1. PROFILE

1.1 ADDRESS: Psematismenos

1.2.1 YEAR OF CONSTRUCTION: 1901

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2005

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 3

1.5 COVERED AREA (M<sup>2</sup>): 90

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 21/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 102000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 83.07

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.724

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

-with extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	5/11
<b>TOTAL SCORE</b>			<b>21</b>

## 1. PROFILE

1.1 ADDRESS: Lefkara

1.2.1 YEAR OF CONSTRUCTION: 1895

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2005

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 190

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 21/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 162313

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 83.07

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.724

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>21</b>

## 1. PROFILE

1.1 ADDRESS: Vavla

1.2.1 YEAR OF CONSTRUCTION: 1890

1.2.2 FIRST USE: Multi-purpose

1.3.1 YEAR OF CONVERSION: 2006

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 250

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 22/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (£): 250000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 87.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.51

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

-With extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>22</b>

## 1. PROFILE

1.1 ADDRESS: Alambra

1.2.1 YEAR OF CONSTRUCTION: 1890

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 350

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (£): 179479

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (Stone-Asbestos&Adobe Walls)

## 4. NOTES

-With extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	N
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>23</b>

## 1. PROFILE

1.1 ADDRESS: Kaimakli

1.2.1 YEAR OF CONSTRUCTION: 1920

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 125

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (£): 170000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Walls

## 4. NOTES

-With extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	N	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>23</b>

## 1. PROFILE

1.1 ADDRESS: Historic Core, Limasol

1.2.1 YEAR OF CONSTRUCTION: 1951

1.2.2 FIRST USE: Multi-purpose

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 25

1.5 COVERED AREA (M<sup>2</sup>): 1680

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 22/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 1110000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Concrete

## 4. NOTES

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	N
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	N
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>22</b>

## 1. PROFILE

1.1 ADDRESS: Kaimakli

1.2.1 YEAR OF CONSTRUCTION: 1895

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 2

1.5 COVERED AREA (M<sup>2</sup>): 215

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 22/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 240000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe-Walls

## 4. NOTES

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>22</b>

## 1. PROFILE

1.1 ADDRESS: Kaimakli

1.2.1 YEAR OF CONSTRUCTION: 1908

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2007

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 3

1.5 COVERED AREA (M<sup>2</sup>): 230

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 23/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 360000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 91.94

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 4.821

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe-Walls

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	7/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>23</b>

## 1. PROFILE

1.1 ADDRESS: Historic Core, Strovolos

1.2.1 YEAR OF CONSTRUCTION: 1905

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2008

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 3

1.5 COVERED AREA (M<sup>2</sup>): 240

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 24/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 250000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 100.92

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 3.864

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (Limestone&Adobe-Walls)

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	8/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	7/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>24</b>

## 1. PROFILE

1.1 ADDRESS: Kaimakli

1.2.1 YEAR OF CONSTRUCTION: 1910

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 200

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 26/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 240000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe-Walls

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	Y
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	Y	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	9/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	Y	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	Y	Designation of the building	Y
		SCORE	8/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>26</b>

## 1. PROFILE

1.1 ADDRESS: Gerasa

1.2.1 YEAR OF CONSTRUCTION: 1894

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 400

1.6 AREA: RURAL

1.7 VIABILITY SCORE: 21/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 250000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Stone-Asbestos

## 4. NOTES

-With Extension



	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	N
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	Y	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>21</b>

## 1. PROFILE

1.1 ADDRESS: Historic Core, Nicosia

1.2.1 YEAR OF CONSTRUCTION: 1880

1.2.2 FIRST USE: Residential

1.3.1 YEAR OF CONVERSION: 2009

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 4

1.5 COVERED AREA (M<sup>2</sup>): 140

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 21/34

1.8 FACADE

## 2. INFO ON THE YEAR OF CONVERSION

2.1 COST OF CONVERSION (€): 250000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 97.34

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: -1.772

## 3. INFO ON MATERIALS

3.1 PRIMARY CONSTRUCTION MATERIAL: Combination (Limestone&Adobe Walls)

## 4. NOTES

-With Extension

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	N
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	Y
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	Y	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	6/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	Y	Possibility for new job-openings	N
Provision of smoke control	N	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	N	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	6/11
<b>TOTAL SCORE</b>			<b>21</b>

**1. PROFILE** dean's Offices, CUT

1.1 ADDRESS: Historic Core, Limasol

1.2.1 YEAR OF CONSTRUCTION: 1890

1.2.2 FIRST USE: Multi-Purpose

1.3.1 YEAR OF CONVERSION: 2011

1.3.2 SECOND USE: Residential

1.4 NUMBER OF USUAL USERS: 30

1.5 COVERED AREA (M<sup>2</sup>): 660

1.6 AREA: URBAN

1.7 VIABILITY SCORE: 22/34

1.8 FACADE

**2. INFO ON THE YEAR OF CONVERSION**

2.1 COST OF CONVERSION (€): 1000000

2.2 PRICE INDEX OF CONSTRUCTION MATERIALS: 103.64

2.3 GROSS DOMESTIC PRODUCT GROWTH RATE: 0.34

**3. INFO ON MATERIALS**

3.1 PRIMARY CONSTRUCTION MATERIAL: Adobe Walls

**4. NOTES**

	Y/N		Y/N
<b>ENVIRONMENTAL ACTIONS</b>			
Humidity meter	N	Thermal insulation	N
Minimum greenhouse emissions	Y	Use of renewable sources of energy (at least one)	N
Use of updated plumbing systems	Y	Installation of water meter, cooling tower, domestic hot water	Y
Installation of energy/electricity meter and provision of maintenance equipment	N	Use of recycling policies	Y
Bioclimatic Characteristics (at least two)	N	Restoration of damaged vegetation	Y
Use of non-toxic paints, coats and materials	Y	Energy efficient equipment	N
		SCORE	6/12
<b>MANAGEMENT</b>			
Maintenance plan (equipment and cleaning plan) for the exterior fabric	Y	Maintenance plan for the land/environment surrounding the built elements	Y
Maintenance plan (equipment and cleaning plan) for the interior elements	Y	SCORE	3/3
<b>ACTIONS TOWARDS HISTORY &amp; CULTURE</b>			
Quality retro-fitting (innovational)	N	Physical and conceptual connection to the cultural/historical context	Y
Harmonious co-existence of old and new elements (respect towards the existing materiality)	Y	Option for documentation of the history lying on site	Y
Restoration of the existing built landscape elements	N	Respect for the existing fabric by new technologies installed	Y
Flexibility and adaptability to receive new uses and repairs	N	Designation of the building	Y
		SCORE	5/8
<b>SOCIAL MATTERS &amp; WELL BEING</b>			
Functionality of the plan- inner movements	N	Possibility for new job-openings	Y
Provision of smoke control	Y	Windows for daylight and outer views in all regularly occupied rooms	Y
Connection to communal/inclusive public spaces	Y	Noise insulation	N
Provision of parking spaces (cars, bicycles and motorcycles)	N	Provision of shaded spaces (trees and heat-absorbing materials)	Y
Provision of ventilation options: mechanical systems or natural system through design or plans for airflow	Y	Proximity to public transport (5 minutes on foot)	Y
		Sense of locality maintained	Y
		SCORE	8/11
<b>TOTAL SCORE</b>			<b>22</b>

## 10.4 Appendix D: “Contradicting neighbors”

Why do some buildings flourish through their reuse and others do not?

Below are some examples of contradicting buildings existing within the same neighborhood.



- A. Two opposite buildings on the same street. Both had public uses introduced in an inactive shell. Yet the building on the left is considered to be a successfully adapted unit, whereas the building on the right always seems to be empty.



B. Similarly, the same approaches were followed in these two case studies. Both the first and second uses are the same. The primary construction materials are the same and they are attached to each other. However, the building on the left stands empty whereas the one on the right flourishes.



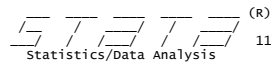
C. A case where a building is left in a desperate state for many years (building on the right). On the other hand, the building on the left is preserved and serves a new use. Both had the same original use, but when the conversions took place, different uses were introduced on the ground levels.





D. The picture above shows different spaces within the same building/complex. The one on the right, although much bigger, is left empty whereas the small space on the left continues to operate hosting the second use which was introduced many years ago.

# 10.5 Appendix E: Alternative Versions of the Dissertation's Model



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 StataCorp  
 4905 Lakeway Drive  
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Notes:  
 1. (/m# option or -set memory-) 10.00 MB allocated to data

. use "C:\Users\Despina\Desktop\09 10\Trials.dta", clear

. reg DoSAR age ConEra NUU Lc GdpG CostM2 PiCm Pcm Tu VScR Ext Cu

Source	SS	df	MS			
Model	1491116.49	12	124259.707	Number of obs = 89		
Residual	222461.58	76	2927.12605	F( 12, 76) = 42.45		
Total	1713578.07	88	19472.4781	Prob > F = 0.0000		
				R-squared = 0.8702		
				Adj R-squared = 0.8497		
				Root MSE = 54.103		

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
age	-.7998625	.2134488	-3.75	0.000	-1.224983	-.3747424
ConEra	25.42505	16.90231	1.50	0.137	-8.238817	59.08892
NUU	.1005384	.1456916	0.69	0.492	-.1896316	.3907084
Lc	3.971529	14.11732	0.28	0.779	-24.14555	32.0886
GdpG	1.635583	2.204179	0.74	0.460	-2.75442	6.025585
CostM2	-.0044417	.0052235	-0.85	0.398	-.0148453	.0059618
PiCm	-6.949314	.4945037	-14.05	0.000	-7.934203	-5.964424
Pcm	8.254807	14.61943	0.56	0.574	-20.86232	37.37193
Tu	23.78977	17.94675	1.33	0.189	-11.95429	59.53383
VScR	-144.5322	85.96335	-1.68	0.097	-315.7431	26.67863
Ext	-14.2661	12.8044	-1.11	0.269	-39.76828	11.23608
Cu	-2.736246	15.7841	-0.17	0.863	-34.17309	28.7006
_cons	989.0203	72.51887	13.64	0.000	844.5865	1133.454

. reg DoSAR ConEra NUU Lc GdpG CostM2 PiCm Pcm Tu VScR Ext Cu

Source	SS	df	MS			
Model	1450012.44	11	131819.312	Number of obs = 89		
Residual	263565.633	77	3422.93029	F( 11, 77) = 38.51		
Total	1713578.07	88	19472.4781	Prob > F = 0.0000		
				R-squared = 0.8462		
				Adj R-squared = 0.8242		
				Root MSE = 58.506		

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ConEra	56.59666	15.9111	3.56	0.001	24.91361	88.27971
NUU	.0761036	.1573901	0.48	0.630	-.2373001	.3895074
Lc	14.32749	14.97082	0.96	0.342	-15.48322	44.13821
GdpG	2.740354	2.362138	1.16	0.250	-1.963264	7.443971
CostM2	-.0064307	.0056194	-1.14	0.256	-.0176203	.004759
PiCm	-6.82166	.534761	-12.79	0.000	-7.883947	-5.759374
Pcm	-1.507657	15.7497	-0.09	0.924	-27.854	34.86931
Tu	11.16138	19.06204	0.59	0.560	-26.796	49.11875
VScR	-118.1395	92.64651	-1.28	0.206	-302.6223	66.3433
Ext	-10.10934	13.79437	-0.73	0.466	-37.57744	17.35875
Cu	6.895591	16.84083	0.41	0.683	-26.63878	40.42996
_cons	863.5094	69.55531	12.41	0.000	725.0071	1002.012

. reg DoSAR ConEra NUU Lc GdpG CostM2 PiCm Pcm Tu EnvSc MngSc HstCultSc SscSc Ext Cu

Source	SS	df	MS			
Model	1463184.99	14	104513.213	Number of obs = 89		
Residual	250393.082	74	3383.6903	F( 14, 74) = 30.89		
Total	1713578.07	88	19472.4781	Prob > F = 0.0000		
				R-squared = 0.8539		
				Adj R-squared = 0.8262		
				Root MSE = 58.169		

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ConEra	38.31545	19.35388	1.98	0.051	-2479936	76.8789
NUU	-.007372	.160303	0.05	0.964	-.312084	.326388
Lc	2.532189	16.52675	0.15	0.879	-39.39807	35.46245
GdpG	2.962747	2.372339	1.25	0.216	-1.764241	7.689735
CostM2	-.0048839	.0056826	-0.86	0.393	-.0162068	.006439
PiCm	-6.838829	.5361565	-12.76	0.000	-7.907144	-5.770514
Pcm	6.778968	15.74657	0.43	0.668	-24.59676	38.1547
Tu	-3.747545	20.26236	-0.18	0.854	-44.12118	36.62609
EnvSc	-57.99411	75.79234	-0.77	0.447	-209.0136	93.02543
MngSc	-71.75542	43.87186	-1.64	0.106	-139.172	15.66118
HstCultSc	-34.11498	56.64878	-0.60	0.549	-146.9901	78.76018
SscSc	98.69078	71.55984	1.38	0.172	-43.89532	241.2769
Ext	-13.0999	14.15247	-0.93	0.358	-41.29931	15.09952
Cu	7.272445	16.95151	0.43	0.669	-26.50418	41.04907
_cons	868.6702	68.29962	12.72	0.000	732.5803	1004.76

. reg ViableReuse ConEra NUU Lc GdpG CostM2 PiCm Pcm Tu Ext Cu

Source	SS	df	MS			
Model	331926.439	10	33192.6439	Number of obs = 89		
Residual	125383.129	78	1607.47601	F( 10, 78) = 20.65		
Total	457309.568	88	5196.69963	Prob > F = 0.0000		
				R-squared = 0.7258		
				Adj R-squared = 0.6907		
				Root MSE = 40.093		

ViableReuse	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ConEra	44.33082	10.87464	4.08	0.000	22.68107	65.98057
NUU	-.1098747	.1006563	-1.09	0.278	-.305166	.312659
Lc	4.071922	10.20092	0.40	0.691	-16.23655	24.38039
GdpG	-1.281143	1.599211	-0.80	0.426	-4.464929	1.902642
CostM2	-.0001533	.0038152	0.04	0.968	-.0074422	.0077489
PiCm	-3.661664	.3578562	-10.23	0.000	-4.374101	-2.949227
Pcm	4.796423	10.7328	0.45	0.656	-16.57093	26.16378
Tu	8.270907	13.02225	0.64	0.527	-17.65441	34.19622
Ext	-3.652148	9.172563	-0.40	0.692	-14.60902	21.91332
Cu	-2.28192	11.45696	-0.20	0.843	-25.09104	20.52706
_cons	432.2695	36.96164	11.70	0.000	358.6845	505.8545





## 10.6.2 Testing with the AIC and BIC

```

. reg DoSAR ConEra NuU Lc GdpG CostM2 P1Cm Pcm Tu EnvSc MngSc HstCuItSc SscSc Ext Cu

```

Source	SS	df	MS	Number of obs = 89		
Model	1463184.99	14	104513.213	Fi (14, 74)	=	30.89
Residual	250393.082	74	3383.6903	Prob > F	=	0.0000
				R-squared	=	0.8539
				Adj R-squared	=	0.8552
Total	1713578.07	88	19472.4781	Root MSE	=	58.169

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	38.31545	19.35388	1.98	0.051	-.2479936 76.8789
NuU	.0073272	.1603035	0.05	0.964	-.3120844 .3267388
Lc	2.532189	16.32675	0.15	0.879	-30.29807 35.46245
GdpG	2.962747	2.372339	1.25	0.216	-1.794741 7.889735
CostM2	-.0048839	.0056826	-0.86	0.393	-.0162068 .006439
P1Cm	-6.838829	.5361565	-12.76	0.000	-7.907144 -5.770514
Pcm	6.778968	15.74657	0.43	0.668	-24.59676 38.1547
Tu	-3.747545	20.26236	-0.18	0.854	-44.12118 36.62609
EnvSc	-57.99411	75.79234	-0.77	0.447	-209.0136 93.02543
MngSc	-71.75542	43.87186	-1.64	0.106	-119.1372 15.66118
HstCuItSc	-34.11498	56.64878	-0.60	0.549	-146.9901 78.76018
SscSc	98.69078	71.55964	1.38	0.172	-43.89332 241.2769
Ext	-13.0999	14.15247	-0.93	0.358	-41.29931 15.09952
Cu	7.272445	16.95151	0.43	0.669	-26.50418 41.04907
_cons	868.6702	68.29962	12.72	0.000	732.5803 1004.76

```

. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-479.7112	15	989.4225	1026.752

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra Lc GdpG CostM2 P1Cm Pcm Tu EnvSc MngSc HstCuItSc SscSc Ext Cu
. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-479.7125	14	987.425	1022.266

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra GdpG CostM2 P1Cm Pcm Tu EnvSc MngSc HstCuItSc SscSc Ext Cu
. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-479.728	13	985.456	1017.808

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra GdpG CostM2 P1Cm Pcm EnvSc MngSc HstCuItSc SscSc Ext Cu
. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-479.7493	12	983.4986	1013.362

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra GdpG CostM2 P1Cm Pcm EnvSc MngSc HstCuItSc SscSc Ext
. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-479.864	11	981.7279	1009.103

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra GdpG CostM2 P1Cm EnvSc MngSc HstCuItSc SscSc Ext
. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-480.0334	10	980.0668	1004.953

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra GdpG CostM2 P1Cm EnvSc MngSc SscSc Ext
. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-480.2668	9	978.5335	1000.931

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra GdpG CostM2 P1Cm MngSc SscSc Ext
. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-480.6875	8	977.3751	997.2842

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra GdpG P1Cm MngSc SscSc Ext
. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-481.1848	7	976.3696	993.7901

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra GdpG P1Cm MngSc SscSc
. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-482.3806	6	976.7612	991.693

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra P1Cm MngSc SscSc
. estat ic

```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-482.9715	5	975.9429	988.3861

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

```

. quietly reg DoSAR ConEra P1Cm MngSc
. estat ic

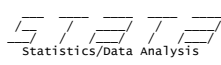
```

Model	Obs	ll(nu11)	ll(model)	df	AIC	BIC
.	89	-565.2984	-483.9738	4	975.9476	985.9021

Note: N=obs used in calculating BIC; see [R]\_BIC\_note

# 10.7 Appendix G: Model's Version B Testing

(R)



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**Notes:**

1. (/## option or -set memory-) 10.00 MB allocated to data

. use "C:\Users\Despina\Desktop\09 10\Trials.dta", clear

. reg DoSAR ConEra NuU Lc GdpG CostM2 PiCm Pcm Tu VScr Ext Cu

Source	SS	df	MS	Number of obs = 89		
Model	1450012.44	11	131819.312	F( 11, 77) =	38.51	
Residual	263565.633	77	3422.93029	Prob > F =	0.0000	
Total	1713578.07	88	19472.4781	R-squared =	0.8462	
				Adj R-squared =	0.8242	
				Root MSE =	58.506	

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	56.59666	15.9111	3.56	0.001	24.91361 88.27971
NuU	.0711403	.1573901	0.48	0.630	-.2373001 .3895074
Lc	14.32749	14.97082	0.96	0.342	-15.48322 44.13821
GdpG	2.740354	2.362138	1.16	0.250	-1.963264 7.443971
CostM2	-.0064307	.0056194	-1.14	0.256	-.0176203 .004759
PiCm	-6.82166	.5334761	-12.79	0.000	-7.883947 -5.759374
Pcm	3.507657	15.7497	0.22	0.824	-27.854 34.86931
Tu	11.16138	19.06204	0.59	0.560	-26.796 49.11875
VScr	-118.1395	92.64651	-1.28	0.206	-302.6223 66.3433
Ext	-10.10934	13.79437	-0.73	0.466	-37.57744 17.35875
Cu	6.895591	16.84083	0.41	0.683	-26.63878 40.42996
_cons	863.5094	69.55531	12.41	0.000	725.0071 1002.012

. reg DoSAR ConEra NuU Lc GdpG CostM2 PiCm Tu VScr Ext Cu

Source	SS	df	MS	Number of obs = 89		
Model	1449842.66	10	144984.266	F( 10, 78) =	42.88	
Residual	263735.413	78	3381.22325	Prob > F =	0.0000	
Total	1713578.07	88	19472.4781	R-squared =	0.8461	
				Adj R-squared =	0.8264	
				Root MSE =	58.148	

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	57.14535	15.62315	3.66	0.000	26.04204 88.24865
NuU	.0711403	.1548522	0.46	0.647	-.2371468 .3794273
Lc	14.93396	14.63112	1.02	0.311	-14.19437 44.06229
GdpG	2.758874	2.346247	1.18	0.243	-1.912146 7.429894
CostM2	-.0064561	.0055839	-1.16	0.251	-.0175728 .0046606
PiCm	-6.828444	.5293509	-12.90	0.000	-7.882301 -5.774588
Tu	10.46807	18.69121	0.56	0.577	-26.74327 47.67941
VScr	-115.9617	91.56603	-1.27	0.209	-329.2557 66.33227
Ext	-10.15498	13.70856	-0.74	0.461	-37.44662 17.13667
Cu	7.20382	16.6813	0.43	0.667	-26.00609 40.41373
_cons	863.5813	69.12952	12.49	0.000	725.955 1001.208

. reg DoSAR ConEra Lc GdpG CostM2 PiCm Tu VScr Ext Cu

Source	SS	df	MS	Number of obs = 89		
Model	1449129.03	9	161014.337	F( 9, 79) =	48.10	
Residual	264449.038	79	3347.45618	Prob > F =	0.0000	
Total	1713578.07	88	19472.4781	R-squared =	0.8457	
				Adj R-squared =	0.8281	
				Root MSE =	57.857	

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	57.53665	15.52182	3.71	0.000	26.64123 88.43207
Lc	16.25694	14.27311	1.14	0.258	-12.15297 44.66686
GdpG	2.684908	2.328999	1.15	0.252	-1.95085 7.320665
CostM2	-.0062038	.005529	-1.12	0.265	-.017209 .0048014
PiCm	-6.862022	.5216563	-13.15	0.000	-7.900353 -5.823691
Tu	11.24637	18.5211	0.61	0.545	-25.61895 48.11169
VScr	-101.2476	85.35241	-1.19	0.239	-271.1373 68.64211
Ext	-9.992885	13.63542	-0.73	0.466	-37.1335 17.14773
Cu	7.266385	16.59724	0.44	0.663	-25.7696 40.30237
_cons	857.3698	67.45502	12.71	0.000	723.1039 991.6356

. reg DoSAR ConEra Lc GdpG CostM2 PiCm Tu VScr Ext

Source	SS	df	MS	Number of obs = 89		
Model	1448487.41	8	181060.926	F( 8, 80) =	54.64	
Residual	265090.661	80	3313.63327	Prob > F =	0.0000	
Total	1713578.07	88	19472.4781	R-squared =	0.8453	
				Adj R-squared =	0.8298	
				Root MSE =	57.564	

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	58.59028	15.25646	3.84	0.000	28.22897 88.9516
Lc	17.94049	13.67573	1.31	0.193	-9.275077 45.15605
GdpG	2.62088	2.31263	1.13	0.260	-1.981402 7.223161
CostM2	-.0061013	.0054961	-1.11	0.270	-.0170388 .0048362
PiCm	-6.87784	.5177679	-13.28	0.000	-7.908231 -5.847448
Tu	15.04686	16.27793	0.92	0.358	-17.34725 47.44097
VScr	-105.6279	84.33467	-1.25	0.214	-273.4592 62.20343
Ext	-9.616913	13.53942	-0.71	0.480	-36.56122 17.3274
_cons	862.0726	66.25695	13.01	0.000	730.2171 993.9282

. reg DoSAR ConEra Lc GdpG CostM2 PiCm Tu VScr

Source	SS	df	MS	Number of obs = 89		
Model	1446815.64	7	206687.949	F( 7, 81) =	62.76	
Residual	266762.427	81	3293.3633	Prob > F =	0.0000	
Total	1713578.07	88	19472.4781	R-squared =	0.8443	
				Adj R-squared =	0.8309	
				Root MSE =	57.388	

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	60.69967	14.91878	4.07	0.000	31.01598 90.38337
Lc	19.37	13.48539	1.44	0.155	-7.461695 46.2017
GdpG	2.45657	2.293983	1.07	0.287	-2.107737 7.020876
CostM2	-.0065788	.0054381	-1.21	0.230	-.0173989 .0042413
PiCm	-6.880232	.516171	-13.33	0.000	-7.90725 -5.853214
Tu	15.98433	16.17463	0.99	0.326	-16.19812 48.16678
VScr	-121.356	81.12649	-1.50	0.139	-282.7723 40.0603
_cons	865.5907	65.86916	13.14	0.000	734.5318 996.6497

. reg DoSAR ConEra Lc GdpG CostM2 PiCm VScr

Source	SS	df	MS		Number of obs =
Model	1443599.32	6	240599.886		89
Residual	269978.75	82	3292.42378		F( 6, 82) = 73.08
Total	1713578.07	88	19472.4781		Prob > F = 0.0000
					R-squared = 0.8424
					Adj R-squared = 0.8309
					Root MSE = 57.38

DoSAR	Coeff.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	63.81851	14.57907	4.38	0.000	34.8161 92.82093
Lc	23.17367	12.9226	1.79	0.077	-2.533505 48.88084
GdpG	2.349513	2.291097	1.03	0.308	-2.208208 6.907235
CostM2	-.0064891	.0054366	-1.19	0.236	-.0173042 .0043259
PiCm	-6.905603	.5154586	-13.40	0.000	-7.931014 -5.880192
VScr	-118.7192	81.07104	-1.46	0.147	-279.9953 42.55692
_cons	876.2241	64.97511	13.49	0.000	746.9679 1005.48

. reg DoSAR ConEra Lc GdpG PiCm VScr

Source	SS	df	MS		Number of obs =
Model	1438908.59	5	287781.718		89
Residual	274669.478	83	3309.27081		F( 5, 83) = 86.96
Total	1713578.07	88	19472.4781		Prob > F = 0.0000
					R-squared = 0.8397
					Adj R-squared = 0.8301
					Root MSE = 57.526

DoSAR	Coeff.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	63.13547	14.60506	4.32	0.000	34.0866 92.18434
Lc	23.2914	12.95525	1.80	0.076	-2.476063 49.05886
GdpG	2.222548	2.294474	0.97	0.336	-2.341068 6.786165
PiCm	-6.910369	.5167602	-13.37	0.000	-7.938184 -5.882554
VScr	-139.9663	79.29476	-1.77	0.081	-297.6804 17.74782
_cons	881.2057	65.00661	13.56	0.000	751.9102 1010.501

. reg DoSAR ConEra Lc PiCm VScr

Source	SS	df	MS		Number of obs =
Model	1435803.54	4	358950.886		89
Residual	277774.526	84	3306.83959		F( 4, 84) = 108.55
Total	1713578.07	88	19472.4781		Prob > F = 0.0000
					R-squared = 0.8379
					Adj R-squared = 0.8302
					Root MSE = 57.505

DoSAR	Coeff.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	66.83292	14.09225	4.74	0.000	38.80895 94.8569
Lc	20.75037	12.68222	1.64	0.106	-4.469611 45.97035
PiCm	-7.217372	.4080065	-17.69	0.000	-8.028737 -6.406006
VScr	-152.1482	78.26236	-1.94	0.055	-307.7815 3.485108
_cons	921.4923	49.94261	18.45	0.000	822.176 1020.809

. reg DoSAR ConEra PiCm VScr

Source	SS	df	MS		Number of obs =
Model	1426950.87	3	475650.29		89
Residual	286627.198	85	3372.08468		F( 3, 85) = 141.06
Total	1713578.07	88	19472.4781		Prob > F = 0.0000
					R-squared = 0.8327
					Adj R-squared = 0.8268
					Root MSE = 58.07

DoSAR	Coeff.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	69.94585	14.1003	4.96	0.000	41.91067 97.98103
PiCm	-7.318658	.407242	-17.97	0.000	-8.128364 -6.508951
VScr	-124.0566	77.10548	-1.61	0.111	-277.363 29.24971
_cons	921.9944	50.43194	18.28	0.000	821.7222 1022.26

. reg DoSAR ConEra PiCm

Source	SS	df	MS		Number of obs =
Model	1418221.8	2	709110.9		89
Residual	295356.269	86	3434.37522		F( 2, 86) = 206.47
Total	1713578.07	88	19472.4781		Prob > F = 0.0000
					R-squared = 0.8276
					Adj R-squared = 0.8236
					Root MSE = 58.604

DoSAR	Coeff.	Std. Err.	t	P> t	[95% Conf. Interval]
ConEra	68.50305	14.20113	4.82	0.000	40.27214 96.73397
PiCm	-7.542998	.3861455	-19.53	0.000	-8.31063 -6.775366
_cons	863.8699	35.51253	24.33	0.000	793.2734 934.4665

## 10.7.2 Testing with the AIC and BIC

```

. reg DoSAR ConEra NUU Lc GdpG CostM2 PiCm Pcm Tu VScr Ext Cu

```

Source	SS	df	MS	Number of obs = 89		
Model	1450012.44	11	131819.312	F( 11, 77) =	38.51	
Residual	263565.633	77	3422.93029	Prob > F =	0.0000	
				R-squared =	0.8462	
				Adj R-squared =	0.8242	
Total	1713578.07	88	19472.4781	Root MSE =	58.506	

```


```

DoSAR	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ConEra	56.59666	15.9111	3.56	0.001	24.91361	88.27971
NUU	-.0761036	.1573901	0.48	0.630	-.2373001	.3895074
Lc	14.32749	14.97082	0.96	0.342	-15.48322	44.13821
GdpG	2.740354	2.362138	1.16	0.250	-1.963264	7.443971
CostM2	-.0064307	.0056194	-1.14	0.256	-.0176203	.004759
PiCm	-6.82166	.5334761	-12.79	0.000	-7.883947	-5.759374
Pcm	3.507657	15.7497	0.22	0.824	-27.854	34.86931
Tu	11.16138	19.06204	0.59	0.560	-26.796	49.11875
VScr	-118.1395	92.64651	-1.28	0.206	-302.6223	66.3433
Ext	-10.10934	13.79437	-0.73	0.466	-37.57744	17.35875
Cu	6.895591	16.84083	0.41	0.683	-26.63878	40.42996
_cons	863.5094	69.55531	12.41	0.000	725.0071	1002.012

```


```

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	89	-565.2984	-481.9928	12	987.9856	1017.849

Note: N=Obs used in calculating BIC; see [R] BIC note

```

. quietly reg DoSAR ConEra NUU Lc GdpG CostM2 PiCm Tu VScr Ext Cu
. estat ic

```

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	89	-565.2984	-482.0214	11	986.0429	1013.418

Note: N=Obs used in calculating BIC; see [R] BIC note

```

. quietly reg DoSAR ConEra NUU Lc GdpG CostM2 PiCm Tu VScr Ext
. estat ic

```

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	89	-565.2984	-482.1277	10	984.2554	1009.142

Note: N=Obs used in calculating BIC; see [R] BIC note

```

. quietly reg DoSAR ConEra Lc GdpG CostM2 PiCm Tu VScr Ext
. estat ic

```

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	89	-565.2984	-482.2495	9	982.499	1004.897

Note: N=Obs used in calculating BIC; see [R] BIC note

```

. quietly reg DoSAR ConEra Lc GdpG CostM2 PiCm VScr Ext
. estat ic

```

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	89	-565.2984	-482.7223	8	981.4446	1001.354

Note: N=Obs used in calculating BIC; see [R] BIC note

```

. quietly reg DoSAR ConEra Lc GdpG CostM2 PiCm VScr
. estat ic

```

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	89	-565.2984	-483.0626	7	980.1252	997.5456

Note: N=Obs used in calculating BIC; see [R] BIC note

```

. quietly reg DoSAR ConEra GdpG CostM2 PiCm VScr
. estat ic

```

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	89	-565.2984	-484.7744	6	981.5488	996.4806

Note: N=Obs used in calculating BIC; see [R] BIC note

```

. quietly reg DoSAR ConEra GdpG PiCm VScr
. estat ic

```

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	89	-565.2984	-485.5292	5	981.0583	993.5015

Note: N=Obs used in calculating BIC; see [R] BIC note

```

. quietly reg DoSAR ConEra PiCm VScr
. estat ic

```

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	89	-565.2984	-485.7254	4	979.4509	989.4054

Note: N=Obs used in calculating BIC; see [R] BIC note

```

. quietly reg DoSAR ConEra PiCm
. estat ic

```

Model	Obs	ll(null)	ll(model)	df	AIC	BIC
.	89	-565.2984	-487.0604	3	980.1209	987.5868

Note: N=Obs used in calculating BIC; see [R] BIC note