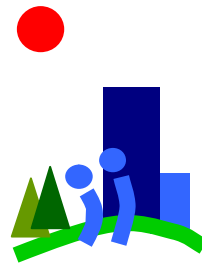


# LEnSE



Methodology Development towards a Label for Environmental,  
Social and Economic Buildings

## A summary of the LEnSE sub issues



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## Introduction



### What is LEnSE?

LEnSE is a European research project that responds to the growing need in Europe for assessing a building's sustainability performance. The project draws on the existing knowledge available in Europe on building assessment methodologies.

The main objective of LEnSE was to develop a methodology for the assessment of the sustainability performance of existing, new and renovated buildings, which is broadly accepted by the European stakeholders involved in sustainable construction.

### The LEnSE assessment issues

Initially the LEnSE Framework included 57 sustainability related assessment issues grouped in to three themes, Environment, Social and Economic. These three themes were further sub divided in to the following categories:

#### Environment



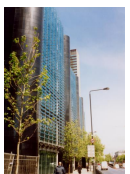
- Climate change
- Biodiversity
- Resource use
- Environmental management and geophysical risk

#### Social



- Occupant wellbeing
- Accessibility
- Security
- Social and cultural value

#### Economic



- Financing and management
- Whole life value
- Externalities

For the purpose of testing the structure of the methodology, 36 of the 57 sub issues were developed. Following European wide testing of the method on ten pilot buildings, a number of sub issues were consolidated. This document provides a brief summary of the intent and the approach adopted for each of the 30 sub issues, a detailed description of these sub issue has not been included. For examples of detailed LEnSE sub issues, download the second project stepping stone publication from the LEnSE website [www.lensebuildings.com](http://www.lensebuildings.com)



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	<b>Theme</b>	Environment			
	<b>Category</b>	Biodiversity			
	<b>Sub issue</b>	Ecological Impact			
	<b>Scope</b>	Non domestic	4	Domestic	4

### ***Intent***

To account for the ecological value of the land selected for development and, where appropriate, enhance or protect such value.

### ***Assessment***

The ecological performance must be determined by classifying the existing ecological value of the site prior to its development and accounting for any measures taken to protect or enhance the sites ecological value.

Benchmark indicator: Flora/Fauna value, landscape type and actions/measures taken to enhance or protect ecological features on the assessed site.

Performance is determined via four measures:

1. Value of the sites existing plant vegetation
2. Value of site to local fauna
3. Value of the sites surrounding landscape
4. Measures undertaken to enhance or protect the ecological value of the site.

Points are awarded depending on the classification of issues 1, 2 & 3; these points then translate in to the LEnSE rating levels. Minimum requirements are set (4) for each rating level based on measures taken to enhance sites with existing low ecological value, or protect sites of high existing ecological value.

	<b>Theme</b>	Environmental			
	<b>Category</b>	Resource Use			
	<b>Sub issue</b>	Responsible sourcing of major building elements			
	<b>Scope</b>	Non domestic	4	Domestic	4

### ***Intent***

To ensure that the extraction/manufacture of major building materials used in new buildings is carried out with good environmental practice.

### ***Assessment***

A score is calculated based on proportion of materials sourced whose supply and manufacture are certified against from recognised schemes (e.g. EMS, FSC, PEFC etc).



<b>Theme</b>	Environment			
<b>Category</b>	Waste			
<b>Sub issue</b>	Radioactive waste			
<b>Scope</b>	Non domestic	4	Domestic	4

### **Intent**

To reduce a buildings indirect radioactive waste production, as a result of demand for nuclear fuelled electricity generation.

### **Assessment**

The issue is assessed through a performance benchmark using as an indicator the volume of radioactive waste produced per m<sup>2</sup> building area. The radioactive waste is related to the electricity consumption of the building and the % of nuclear production according to the country, the utility and the tariff ("green" or standard electricity). The reference corresponds to average electricity consumption for the same building type, and a standard electricity production mix in the country. Both for the reference and actual consumption it is advised to include heating, cooling, lighting, ventilation, hot water, lifts and other building related equipment, but to exclude user related consumption like home or office appliances. If a global electricity bill is used, average values for user related consumption may be subtracted in order to identify the building related part. The note A is obtained if the actual waste production is lower than 10% of the reference value, whereas more than 110% waste production leads to G.

<b>Theme</b>	Environment			
<b>Category</b>	Climate Change			
<b>Sub issue</b>	Transport - depletion of non renewable primary energy			
<b>Scope</b>	Non domestic	4	Domestic	-

### **Intent**

To account for the depletion of non renewable primary energy and CO<sub>2</sub> emissions as a result of commuter travel to and from the buildings location (non domestic buildings only).

### **Assessment**

The buildings performance is determined by measuring the predicted or actual CO<sub>2</sub> emissions of its users from commuting to and from the building.

There are two possible routes to determine the CO<sub>2</sub> emissions; the first is via an estimation based on building location, regional modal travel patterns and national average vehicle emissions. The second is based on a survey of actual staff travel patterns. The former approach is only recommended at the design stage of assessment for speculative buildings, where the final occupier and number of users is unknown. Where possible, the latter approach should be used.

Once the above data has been obtained the CO<sub>2</sub> emissions in kg/person/year are calculated and compared to the benchmarks to determine the LEnSE rating for that building.



<b>Theme</b>	Environmental				
<b>Category</b>	Management				
<b>Sub issue</b>	Environmental management system				
<b>Scope</b>	Non domestic	4	Domestic	4	

### **Intent**

To reward developers and building owners that have, or are working towards producing, an EMS that is suitable for the size and the kind of the company. Thereby, encouraging appropriate management and mitigation of building related organisational environmental impacts.

### **Assessment**

The process based assessment includes 8 stages corresponding to the complete evolution of a project (a selection has to be made if only part of the life cycle is considered):

- client's brief (programme) and existence of an environmental manager,
- choice of the building site,
- integrated design and participatory process,
- use of appropriate design tools,
- contracting of considerate constructors,
- careful construction/renovation process,
- comprehensive performance checking, monitoring and commissioning,
- adequate maintenance and facility management, involving the users.

<b>Theme</b>	Environment				
<b>Category</b>	Env. Manag. & Geophysical risk				
<b>Sub issue</b>	Minimising regional specific climatological risk				
<b>Scope</b>	Non Domestic	4	Domestic	4	

### **Intent**

To minimise the impacts resulting from potential climatological events of the region by adapting building designs, use or operation.

### **Assessment**

The issue is assessed by defining the probability of risks and their intensity, such as flooding, avalanche, forest fire (as appropriate), occurring in the building area and then determining what appropriate protection measures have been added to the building to resist such climatological events.



<b>Theme</b>	Environment				
<b>Category</b>	Resource Use				
<b>Sub issue</b>	Land use				
<b>Scope</b>	Non domestic	4	Domestic	4	

### ***Intent***

To minimise the consumption of undeveloped land by encouraging use of previously developed or contaminated land and its eventual remediation.

### ***Assessment***

The assessment of this sub issues depends on the type and condition of land selected for the new development. Remediation and usage of contaminated land is preferred to consumption of ecologically valuable land or land in rural undeveloped areas, and is therefore rewarded a higher sub issue score.

<b>Theme</b>	Social				
<b>Category</b>	Occupant Wellbeing				
<b>Sub issue</b>	Building safety assessment				
<b>Scope</b>	Non domestic	4	Domestic	4	

### ***Intent***

Accounting for a buildings spatial arrangement, access and services on the grounds of safety.

### ***Assessment***

To weight the specific buildings spatial arrangement, access and services on the grounds of safety, the sub issue 'building safety assessment' has been developed.

This sub issue assessed via a number parameters. In the first parameter each item of risk is to be classified into a risk class (i.e. low, moderate and high risk). In the second parameter a combination of risk class and number of items that should be undertaken is classified. Then, in the third step, a checklist is provided to mark up relevant points, which then determines the sub issues performance rating.

<b>Theme</b>	Social				
<b>Category</b>	Security				
<b>Sub issue</b>	Building security				
<b>Scope</b>	Non domestic	4	Domestic	4	

### ***Intent***

To protect the building and its users against crime and the fear of crime.

### ***Assessment***

A comparison of actual protection levels is made against those required by regulation, based on the risk level (result of risk assessment) for the specific building type and purpose.



	<b>Theme</b>	Social			
	<b>Category</b>	Accessibility			
	<b>Sub issue</b>	Provision of car pooling			
	<b>Scope</b>	Non domestic	4	Domestic	4

### ***Intent***

To encourage car pooling to help reduce peak-hour congestion and therefore commuting time and commuting related stress; all of which have a knock effect in reducing environmental and economic impacts.

### ***Assessment***

The assessment procedure includes two distinct steps. First, the number of building occupants per parking space has to be calculated with the use of either actual data or by estimation. Secondly, the assessor has to determine the number of car share policy objectives implemented on site. Then, the performance is calculated based on a mixed approach (performance and checklist based) assessing the willingness to promote car pooling by means of establishing car share policy objectives and providing limited car parking spaces. A low “users per parking space” figure is considered by the sub issue as an incentive provided by the building administration to promote car pooling (and the use of public transport) by providing limited car parking facilities.

	<b>Theme</b>	Social			
	<b>Category</b>	Social and cultural value			
	<b>Sub issue</b>	Community impact consultation			
	<b>Scope</b>	Non Domestic	4	Domestic	4

### ***Intent***

To encourage the participation of the local community and different target groups in the planning and design process of the project.

### ***Assessment***

The issue is assessed on the process undertaken to involve the community in the different stages of the project: it goes from no consultation and no information given to the community by the investors/developers and a community alienated by the project with wide-scale objections and concerns, to a formal and detailed consultation with the community at each stage of the project and their input used to influence the final design for the project accordingly.



<b>Theme</b>	Social				
<b>Category</b>	Management				
<b>Sub issue</b>	Considerate constructors				
<b>Scope</b>	Non domestic	4	Domestic	4	

### ***Intent***

To ensure constructors are considerate and good neighbours, as well as clean, respectful, safe, environmentally conscious, responsible and accountable during the construction / renovation / demolition phase of the building.

### ***Assessment***

The issue is assessed using a checklist including the following aspects: Inform neighbours, elaborate a safety plan, check the building site with the help of a safety surveyor, avoid harmful substances (e.g. carcinogenic substances) and reduce nuisance (noise, dust, odours, street litters...), sort waste, allow workers to attend continuing education when relevant, reduce thermal bridges and air infiltration, control that the quality of components corresponds to the prescribed level (e.g. thermal, acoustic and visual properties).

<b>Theme</b>	Social				
<b>Category</b>	Accessibility				
<b>Sub issue</b>	Provision of key amenities				
<b>Scope</b>	Non domestic	4	Domestic	4	

### ***Intent***

The provision of key amenities in proximity of the building encourages sustainable and integrated communities. Easier access to such facilities also reduces transport related greenhouse gas emissions.

### ***Assessment***

The building's performance must be determined by measuring the distance to all relevant amenities in proximity of the assessed buildings main entrance.

Three classes of amenities have been defined. A number of points are awarded for each amenity within a certain distance from the building. The number of points increases when the amenity is located closer to the building, but is also dependent on the class of amenity (e.g. local food shop or primary school are ranked higher than a bank/cash machine). To reach a certain performance level, both a specified number of points and some minimum requirements have to be achieved.



<b>Theme</b>	Social			
<b>Category</b>	Social and cultural value			
<b>Sub issue</b>	Design quality			
<b>Scope</b>	Non domestic	4	Domestic	4

### **Intent**

To ensure that the building reaches a high standard of architectural merit and design quality, as defined by the users of the building and the neighbouring community.

### **Assessment**

An average score is calculated based on the results from a 'design quality' checklist/questionnaire that covers the following topics:

- Aesthetic value of the building
- Integration of the building with its surroundings, etc.

<b>Theme</b>	Social			
<b>Category</b>	Occupant wellbeing			
<b>Sub issue</b>	Occupants satisfaction			
<b>Scope</b>	Domestic	4	Non Domestic	4

### **Intent**

Accounting for user experience in creating a comfortable & productive internal environment.

### **Assessment**

To account for the users experience regarding a comfortable and productive internal environment within the building, the sub issue 'occupants' satisfaction' has been developed. As there are different requirements to the environment within domestic and a non-domestic buildings, two independent questionnaires have been developed that address the following;

- Thermal Comfort
- Air Quality
- Lighting / Day lighting
- Acoustic Quality
- Cleanliness and Maintenance
- Accessibility
- Commute
- Operable Windows
- Raised Floor and Floor Diffusers
- Safety and Security



<b>Theme</b>	Social			
<b>Category</b>	Health and well being			
<b>Sub issue</b>	Internal user amenities			
<b>Scope</b>	Non domestic	4	Domestic	4

### ***Intent***

Spaces for privacy (e.g. study, rest, contemplation) or conviviality (e.g. co-housing, cafeteria in an office building) contribute to well being if they are designed to account for the occupants and their needs. A participatory process is therefore essential on these issues.

### ***Assessment***

The performance of this sub issue is based on the scope of a participatory process involving the existing or potential users of the building, and the specification or existence of appropriate internal spaces to meet user needs.

<b>Theme</b>	Social			
<b>Category</b>	Social and cultural value			
<b>Sub issue</b>	External 'neighbourhood' impacts			
<b>Scope</b>	Non domestic	4	Domestic	4

### ***Intent***

To reduce negative effects of development on neighbouring properties (solar access, wind effects, reduction of privacy and noise and light pollution)

### ***Assessment***

The building's impact on the neighbouring properties is evaluated using a checklist, with points awarded for each issue. Rating for this issue depends on the number of points awarded to the building.

The impact of a building on the neighbouring properties comprises several aspects:

- Solar access to neighbouring properties
- Increase of background noise level
- Light pollution
- Reduction of privacy for existing buildings
- Wind effects



<b>Theme</b>	Social			
<b>Category</b>	Accessibility			
<b>Sub issue</b>	Provision of safe and adequate cycle lanes and facilities			
<b>Scope</b>	Non domestic	4	Domestic	

### **Intent**

To recognise and encourage the provision of adequate and safe cycle paths leading on to [and off] the site that link up with external cycle route ways and onsite cyclist facilities (i.e. cycle racks).

### **Assessment**

The performance benchmark is based on a checklist of the quality of cycle lanes, as well as available facilities for bicycles and for cyclists. To set the scope three categories have been distinguished:

1. Cycle Lanes
2. Bicycle Parking System
3. Cyclist facilities

Point's area awarded depending on the scope of facilities provided, a total score then translates in to an A-G sub issue score. The sub issue benchmark varies according to the potential scope of facilities that can realistically be provided, for example; sometimes there is no scope for including cycle lanes on a city centre site, in which the surface of the building is equal to the surface of the site.

<b>Theme</b>	Social			
<b>Category</b>	Accessibility			
<b>Sub issue</b>	Public transport accessibility			
<b>Scope</b>	Non domestic	4	Domestic	4

### **Intent**

To recognise buildings that are accessible by, and encourage the use of, public transport networks.

### **Assessment**

The buildings performance is determined by measuring the public transport accessibility index for that buildings location. This is then compared to the appropriate set of benchmarks for that location type.

The public transport accessibility index is calculated for each node and route as follows:

1. Determine the walk time from the building to the node
2. Determine the waiting time i.e. frequency that node
3. Add a reliability factor to the service waiting time: Bus/trams=2, Train = 0.75
4. Determine total access time = walk time + service wait time



5. Determine the Equivalent Building Entrance (EBE) frequency = 30/ total access time. Then;
6. For each public transport type calculate the accessibility index =  $EBE_{max} + (0.5 * \Sigma \text{ all other EBE})$ . Then;
7. Sum the accessibility index of all public transport types and then compare to the benchmarks to determine the LEnSE Rating.

For non domestic buildings the benchmarks can be adjusted to account for the number of car parking spaces provided for the building. This ensures that where there is very good public transport within a buildings location, its use is not undermined by having a large amount of parking for private motor vehicles.

<b>Theme</b>	Economic			
<b>Category</b>	Whole Life Value			
<b>Sub issue</b>	Improve Ease of Maintenance			
<b>Scope</b>	Non domestic	4	Domestic	4

### ***Intent***

To recognise a building that has considered ease of maintenance throughout its life cycle, taking into the building configuration.

### ***Assessment***

The building's performance is determined by comparing the exposure degree of the building certain characteristics of the building. The ratio of performance is then compared to a reference table to determine building sub issue performance.

The building classifications are determined on the basis of an index indicating the exposure to aggressive circumstances, which depends on three principle factors:

- site
- design
- level of usage

A weighted maintenance index evaluates the ease of maintenance for the building. It represents the ratio between the base factor, which characterises the whole representative sub-components of the building, and the weighted maintenance factor, which corresponds to the weighted base factors of the criteria for evaluating the ease of maintenance by representative sub-component.

The base factor is the sum of the individually predetermined/determined\_(depending on availability of the data) base factors for each sub-component according to building types and actions (domestic/offices, construction/renovation), based on the following:

- representation within the building
- criticality in case of failure

The weighted maintenance factor is the sum of the individually-weighted base factors for each sub-component, based on the following parameters:

- quality control,
- complexity of actions,
- accessibility level,
- documentation of the system,



<b>Theme</b>	Economic			
<b>Category</b>	Whole Life Value			
<b>Sub issue</b>	Increase ease of building adaptability			
<b>Scope</b>	Non domestic	4	Domestic	4

### **Intent**

Adaptable buildings can be adjusted to fulfil the changing demands of the building users and thus has a positive influence on the lifetime of the building.

### **Assessment method**

The building adaptability is assessed independent of the building typology and environment where it is located. Six aspects are evaluated, resulting in a flexibility index of the building, these are;

- Building Extensions – both horizontal and vertical
- Distinction between “support” and “infill”
- Bearing structure – grid (m x m) and floor height (floor to ceiling)
- Adaptability of the building envelope
- Adaptability of the technical installations
- Adaptability of the infill

Points are awarded for each of these aspects, based on the building's characteristics. These points are then weighted and aggregated into the final score, the Flexibility Index.

<b>Theme</b>	Economic			
<b>Category</b>	Whole life value			
<b>Sub issue</b>	Life cycle costs– component level			
<b>Scope</b>	Non domestic	4	Domestic	4

### **Intent**

To recognise and encourage the assessment of the Life Cycle Costs (LCC) of a building component in a manner, so that the information can be used to aid decision making concerning the design options that provide best value.

### **Assessment method**

The performance benchmark is based on a checklist of the quality of the LCC, as well as the completeness of the assessment. It is done in three steps:

1. First, the number of LCC calculations performed on a component level is determined.
2. Secondly, the completeness of the LCC calculations is determined, based on: the product costs, the costs for application, maintenance, demolition and disposal. The scope of the LCC analysis (only the first product cycle or the total lifespan) is also taken into account.
3. The third step consists of the aggregation of the scores obtained in step 2 and comparison with this sub issues performance benchmark.



<b>Theme</b>	Economic			
<b>Category</b>	Whole Life Value			
<b>Sub issue</b>	Life cycle costs – strategic level			
<b>Scope</b>	Non domestic		Domestic	

### **Intent**

To recognise and encourage the assessment of the Life Cycle Costs of a building in a coordinated and standardised manner, so that the information can be used to aid decision making concerning the design options that provide best value.

### **Assessment**

The WLC appraisal covers a broader range of topics than the component level, like the operational costs (i.e. energy and water consumption). Furthermore, the WLC appraisal on a strategic level is done in a much earlier stage in the planning process (early design or refurbishment stage) than the appraisal on a component level, which is done in the design stage (influencing the materialisation).

The assessment is checklist based. It consists of three steps:

1. In the first step the quality of the LCC calculations and presentation of results is analysed, based on the use of cost calculations only, or cost calculations including: a sensitivity or risk analysis, a 'manual' on how to deal with risks and uncertainties risk calculations made conform ISO 15686-5.
2. Next, the completeness of the analysis is being checked. During the lifecycle of a building a long list of costs are relevant (ranging from non-construction cost, design and construction costs to costs for demolition and disposal). Some costs are directly related to environmental sustainability (e.g. energy), for others there is only an indirect relation or no relation at all.
3. Lastly, scores are aggregated and a comparison with the performance benchmark is made.

<b>Theme</b>	Economic			
<b>Category</b>	Whole Life Value			
<b>Sub issue</b>	Added value			
<b>Scope</b>	Non domestic	4	Domestic	4

### **Intent**

To determine whether the building provides a productive working environment and therefore adds value to organisational aims and objectives.

### **Assessment method**

The questionnaire must be completed by a proportion of the building users, the questionnaire asks the user a number of questions on their opinion of the building, including:

- Whether the building is comfortable to work in (air temperature, acoustic comfort, lighting provision, etc)



- Whether the building meets the functional demands required of it in terms of space and spatial arrangement
- Is there a suitable balance between private and communal areas?
- Does the building enable them and their colleagues to work well?
- Does the building promote innovation?
- Is the building is pleasing to work in?

Once completed, the assessor must add up the scores that correspond to each answer and calculate the *average* score according to the number of respondents.

<b>Theme</b>	Economic			
<b>Category</b>	Whole life value			
<b>Sub issue</b>	Exchange value			
<b>Scope</b>	Non domestic	4	Domestic	4

### ***Intent***

To ensure the enhancement in value of the building as a commodity to be traded in the future.

### ***Assessment method***

The building's performance, in terms of indicative measures taken to improve its exchange value, is assessed. The number of measures adopted determines the number of sub issue points achieved and therefore the sub issue rating. Achieving a particular sub issue rating is subject to meeting minimum requirements at each level.

The predicted enhancement in exchange value is based on the following:

#### **Step 1: Identification of issues predicted to improve exchange value**

Production of a report identifying the key factors associated with the building that are likely to improve its future exchange value.

#### **Step 2: Achievement of LEnSE points likely to improve exchange value**

There are a number of sub-issues contained within the LEnSE methodology that are likely to have a positive effect on the future exchange value of the building. Where LEnSE sub-issues have been achieved it will enhance the exchange value of the building. Points are therefore awarded according to which of these LEnSE issues the building complies with.

#### **Step 3: Adoption of other measures predicted to improve exchange value**

Where measures outside the scope of LEnSE are adopted to enhance future exchange value then additional points may be awarded.

The accumulation of the points from steps 2 & 3 determine the A-G rating for this sub issue, subject to the minimum requirements being met.



<b>Theme</b>	Economic			
<b>Category</b>	Financing and management			
<b>Sub issue</b>	Risk and value management			
<b>Scope</b>	Non domestic	4	Domestic	4

### ***Intent***

Maximising building value and reducing risk by establishing a clear consensus about the project objectives and how they can be achieved.

### ***Assessment***

The building's performance under this sub issue must be determined by comparing to specific process stages. The main topics assessed include:

1. The client – investor needs
2. Alternative scenarios of different values
3. A life cycle approach to risk and value
4. Consideration of risk allowances
5. A risk/ value monitoring system

<b>Theme</b>	Economic			
<b>Category</b>	Financing and management			
<b>Sub issue</b>	Function analysis			
<b>Scope</b>	Non domestic	4	Domestic	4

### ***Intent***

To encourage a systematic analysis of the buildings functional requirement, concentrating on the actual needs, aspirations and demands of the client and building users to ensure a more economically sustainable building fit for purpose.

### ***Assessment***

The building's performance under this sub issue is determined by comparing to specific process stages. Principally, it is a process-based assessment with the following being the main topics assessed:

1. Identification of building's functional requirements and opportunities to increase the building's economic and user efficiency, performance, comfort and productivity
2. Discussions focusing on the building's functional requirements from the user's perspective with a representative group of the building's users/occupiers.
3. Consideration of risk issues and risk management



<b>Theme</b>	Economic				
<b>Category</b>	Externalities				
<b>Sub issue</b>	Connectivity with local employment				
<b>Scope</b>	Non domestic	4	Domestic	4	

### **Intent**

To recognise and reward buildings which aim to sustain or improve the local/regional economy by locating in an area in which the unemployment rate is higher than the national average and employing people that live in the locality.

### **Assessment method**

Firstly, the unemployment rate for the region in which the building is located is determined. A calculation is then carried out to compare the unemployment rate of the region with the national unemployment rate; this is then compared with a table of benchmarks to provide an indicator of the buildings connectivity with local employment and its LEnSE rating.

<b>Theme</b>	Economic issues				
<b>Category</b>	Externalities				
<b>Sub issue</b>	Specification/use of locally produced materials				
<b>Scope</b>	Non domestic	4	Domestic	4	

### **Intent**

To increase the use of locally produced materials, thus supporting the regional economy and reducing the environmental impacts resulting from transportation of materials.

### **Assessment**

Performance under this sub issue is determined as (a) the proportion of key building materials, by value, produced within the locality of the site and (b) the existence of a local purchasing policy. The method utilized for the calculation of performance is both performance-based (% of locally produced materials) and process-based (local purchasing policy stages). The determination of locally produced materials purchased, is estimated according to the building's specific location, while the main materials taken into account for the assessment include:

- Aggregates
- Ready-mix concrete
- Asphalt
- Drainage products/pipes
- Pre-cast concrete products
- Concrete tiles and reconstituted slate tiles
- Dense blocks
- Lightweight blocks
- Clay facing bricks
- Plasterboard
- Chipboard and other wood-based boards
- Insulation
- Plastics
- Glass
- Internal floor coverings