

Green Charter

1. INTRODUCTION

“A DEVELOPMENT THAT MEETS THE NEEDS OF PRESENT GENERATIONS WITHOUT COMPROMISING FUTURE GENERATIONS’ ABILITY TO MEET THEIRS”

- ❖ Development is a process leading to improvement in people’s well-being. Economic activity and material well-being continue to be essential but aspects of living like health, education, preservation of the environment and cultural integrity are just as essential.
- ❖ The adjective “sustainable” emphasises the notion of time, i.e. improvement over the long term in the well-being of all.

Sustainable development is conceived of as a break with other forms of development that have led, and continue to lead, to considerable social and ecological harm, both worldwide and locally.

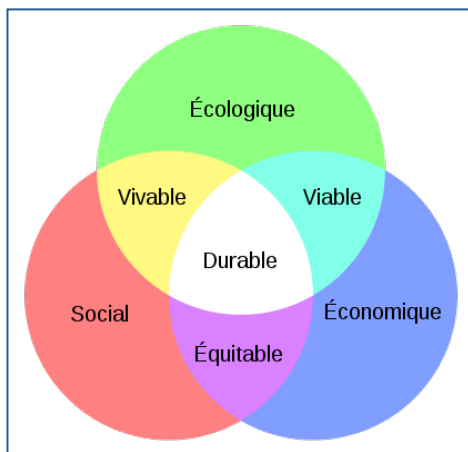


Figure 1 Ecological / Liveable / Sustainable / Viable / Social / Fair / Economic

To be sustainable, development must reconcile three major elements:

Social fairness, preservation of the environment and economic efficiency (see diagram).

The objective of sustainable development is to maintain the balance among these three pillars in all actions and any changes, both now and in the future.

Ultimately, a sustainable development project rests on a more accomplished type of cooperation between society and its members.

A policy’s success is thus the result of respect for the needs for transparency and the involvement of the public at large.

- ❖ Sustainable development has to focus both on implementing sustainable constructional principles in the sense set down in this document and on responsible operation of the *Hub Just Under The Sky*.

2. GENERAL

NEG wishes to conduct an active policy in environmental and sustainability terms in the development (construction and operation) of the *Hub Just Under the Sky*.

To this end, NEG has opted for BREEAM certification with a score objective of **Excellent**.

Launched for office buildings in the United Kingdom in 1990, and then adopted for trade, industry and residential properties, BREEAM certification (an acronym meaning Building Research Establishment Environmental Assessment) is the most widespread method in Europe for evaluating and improving the environmental performance of buildings.

BREEAM certification evaluates buildings' performance on the basis of the following table:

Table 1 Summary of BREEAM categories and main issues

Management <ul style="list-style-type: none"> • Commissioning • Construction site impacts • Building User Guide 	Waste <ul style="list-style-type: none"> • Construction waste • Recycled aggregates • Recycling facilities
Health and Wellbeing <ul style="list-style-type: none"> • Daylight • Occupant thermal comfort • Acoustics • Indoor air and water quality • Lighting 	Pollution <ul style="list-style-type: none"> • Refrigerant use and leakage • Flood risk • NO_x emissions • Watercourse pollution • External light and noise pollution
Energy <ul style="list-style-type: none"> • CO₂ emissions • Low or zero carbon technologies • Energy sub metering • Energy efficient building systems 	Land Use and Ecology <ul style="list-style-type: none"> • Site selection • Protection of ecological features • Mitigation/enhancement of ecological value
Transport <ul style="list-style-type: none"> • Public transport network connectivity • Pedestrian and Cyclist facilities • Access to amenities • Travel plans and information 	Materials <ul style="list-style-type: none"> • Embodied life cycle impact of materials • Materials re-use • Responsible sourcing • Robustness
Water <ul style="list-style-type: none"> • Water consumption • Leak detection • Water re-use and recycling 	Innovation <ul style="list-style-type: none"> • Exemplary performance levels • Use of BREEAM Accredited Professionals

Points are given for each aspect depending on the performance achieved. *NEG* and the *Tenant* undertake to actively participate in putting in place the steps needed to obtain BREEAM certification.

3. ACTION

3.1. Management

- ◆ The *Tenant* must at all times be able to prove the existence and continued validity of preventive maintenance contracts covering its entire installations; copies of these contracts will be sent to *NEG* when acceptance of the *Tenant's* works is requested in accordance with the *Bill of Conditions*, accompanied by proof of payment of the charges due pursuant to the maintenance contracts.
- ◆ The *Tenant* shall adjust the modes of operation and consumption of its installations so that they operate as efficiently and economically as possible.
- ◆ When replacing technical plant, the *Tenant* must as far as possible opt for the most efficient and economic model possible.
- ◆ *NEG* and its contract partners will be entitled at all times to access and visit the *Private Areas* in order to inspect the *Tenant's* installations and their operation; they may make all forms of suggestions to the *Tenant* in relation to the present requirements.
- ◆ In order to obtain the credits referred to under excellent BREEAM certification, the *Tenant* must appoint a commissioning manager and abide by the corresponding standards and

procedures as laid down by BREEAM in the context of criterion MAN1, in which two credits are required.

3.2. Personnel

- ❖ As an employer of staff in a workplace situated in the Brussels-Capital Region, the *Tenant* must ensure that it gives a preference to employing staff who chiefly live in Brussels. On this count, an agreement has been entered into between *NEG* and Actiris, in terms of which Actiris has committed to offering the *Tenants* a maximum number of candidates meeting the profiles being looked for;

In the context of hiring staff, the *Tenant* undertakes to comply with the Actiris commitments set down in the House Rules. For its part, Actiris has undertaken to:

- inform the *Tenants* of all the services offered by Actiris, and how they function;
- inform the *Tenants* of the means available to *Tenants* to help them with hiring staff;
- pre-select applicants according to jointly agreed procedures;
- where necessary, work with other bodies to set up training sessions.

3.3. Health and well-being

- ◆ The lighting fitted by the *Tenant* will comply with current standards (at present EN12464 :1 (2003) and EN12464 :2 (2003)) “Light and lighting - Lighting of workspaces – Indoor and Outdoor work places”. In particular, for zones where work is done using computer screens, the unified glare rating (UGR) limits will be adhered to.
- ◆ The lighting uniformity over the entire work area will be greater than or equal to 0.7 and greater than or equal to 0.5 in adjoining zones.
- ◆ The *Tenant* must fit the windows in the office areas with manually operated interior blinds (against glare).
- ◆ The productive activity zones or for exclusive use as offices must be fitted out so as to:
 - all the occupants themselves to regulate the temperature in their offices or SDR,
 - meet the following acoustic requirements: $\leq 40\text{dB LAeq,T}$ in an individual office and the general spaces, between 40 and 50dB LAeq,T in multiple offices. The acoustic insulation of the partitions between noise-sensitive rooms must comply with the following rule: $D_w + \text{LAeq,T} > 75$ (measurements according to standard EN ISO 140-4 :1998). Acoustic measurements will be taken by a specialist firm;
 - allow the occupants to set the lighting per zone: corridor/offices per zone of maximum 4 places by differentiating the natural-light zones near to the windows and the background zones. In the case of the teaching room, the presenter’s zone will be separated from the rest. In the case of a library, the shelving zone will be separate from the reading zone and the reception zone.
- ◆ All fluorescent-type lighting appliances will be fitted with a high-frequency ballast.
- ◆ Painted and varnished surfaces must comply with the VOC content set down in the Decorative Paint Directive 2004/42/EC (phase 2 of appendix 2), and formaldehyde emission E1 (see table

11 in the BREEAM manual). They must also be resistant to algae and mould. The VOC-content criteria are applicable to finishing materials but not to furnishings.

3.4. Water

- ◆ The *Tenant* must keep its water consumption to a minimum. In this context, the *Tenant* will particularly endeavour to detect and immediately have repairs done to leaks in the pipe network belonging to the *Subjects of Let* (leak-detection system to be submitted for approval by NEG).
- ◆ In selecting its equipment, the *Tenant* will opt for appliances that consume as little water as possible (i.e. a twin-flush WC (3/6 litres), taps that switch off automatically or that are fitted with a sensor, urinals with sensor-triggered or automatic rinse, urinals rinsed with fine water jets or “no water” urinals).
- ◆ As regards the systems for distributing and/or storing water for sanitary use, the *Tenant* undertakes to comply with the standards and regulations in force in the context of protection against legionella contamination. It also undertakes not to install a humidifier system except for systems using vapour.
- ◆ NEG Undertakes to install “intelligent” meters allowing instantaneous measurement of consumption, which can be read and operated by NEG without authorisation.
- ◆ If the use of drinking water is not necessary, the *Tenant* agrees to use treated used water or treated natural water.

3.5. Energy

❖ Electricity

- ◆ The *Tenant* must use the lighting in the *Subjects of Let* as efficiently and economically as possible. Efficient, economic use of lighting shall in any event mean the use of lamps that generate at least 60 lumen/W, and, in so far as possible, limiting the lighting in the *Private Areas* outside opening times to a maximum of a third of the lighting used during opening times, subject to the terms of the *House Rules*.
- ◆ If it turns out that, compared to other, similar *Private Areas* in the Hub, the *Tenant*, could use the lighting in the *Subjects of Let* more efficiently and economically, the *Tenant* must take measures aimed at reducing the energy consumed for lighting;
- ◆ In the event the *Tenant* installs an outside lighting system, the following requirements must be adhered to:
 - if the lamp has an Ra colour-rendering index greater than or equal to 60, the luminous efficiency of each light fitting will be at least 50 lumens; if the bulb has an Ra colour-rendering index less than 60, the luminous efficiency of each light fitting will be at least 60 lumens;
 - the outside lighting will either be controlled by a timer or a daylight sensor to prevent it being activated during the daytime.
- ◆ The *Tenant* undertakes to:
 - use light sources with a low power rating (PL, HQI-TS, LEDs), low calorific dissipation and high useful lifetime (no halogen lamps);

- fit lighting sensors that adjust the lighting intensity to take into account ambient natural light where this is variable;
- use electroluminescent diodes for signboards;
- use slides for T5 tubes with electronic ballasts for illuminated shelves;
- manage its lighting using timers;
- install sensor-switches in storerooms to ensure lights are only activated when someone is present.
- ◆ Where the operating costs are equivalent (on the basis of a seven-year depreciation period), the *Tenant* must install LED-technology lighting.
- ◆ The power dissipated by the *Tenant's* electrical installations (lighting and other) must accord with the power that is provided, which is based on 15 W/m² for the electrical installations.

❖ HVAC

- ◆ The covered common parts of the *Hub Just Under The Sky* are not heated or air conditioned (temperature not controlled so as to limit energy consumption).
- ◆ The *Tenant* will use any systems for controlling ambient temperature and other technical apparatus as efficiently and economically as possible. In this context, the *Tenant* will make sure that technical apparatus is unplugged when it does not need to be used.
- ◆ When assessing the energy consumption of technical apparatus in the *Private Areas*, and especially the system for controlling the ambient temperature, the *Tenant* will take as a reference the energy consumption of similar units in the *Hub*. If the *Tenant* considers it needs more heating or cooling in the *Private Areas* than the average from similar units in the *Hub*, it must prove that need. In all cases, the *Tenant* must particularly state the additional capacity it needs over that of other, similar units.
- ◆ The *Private Areas* are air conditioned by the *Tenant* using heat-pump terminal units installed on an average-temperature water loop kept between 16°C and 40°C.
- ◆ Technical requirements for the equipment fitted by the *Tenant*:
 - For *Private Areas* in the *Retail Entity*
 - ≤ 1,000 m² (integrated ceiling units)
 - Calorific performance of heat pumps (COP): 4
 - Cooling performance of heat pumps (EER): 3.5 to 4
 - Specific power of fans (SFP in W/m³/s): < 750 (min. category SFP2 according to EN 13779).
 - > 1,000 m² (ventilation group with batteries, ideally in retail part (storeroom, mezzanine),
 - Calorific performance (COP): 4 to 5
 - Cooling performance (EER): 4
 - Thermal yield of exchangers: 75%
 - Specific power of fans (SFP in W/m³/s): < 1250 (min. category SPF3 according to EN 13779).
- ◆ Ventilation (CO extraction) from the Car Park is provided by comfort-setting smoke extractors. For this purpose, the smoke extractors will be equipped with frequency controls to vary extraction rates according to the concentration of CO.

- ◆ *NEG* provides the *Tenants* with use of a tempered loop provided with an energy meter emitting a radio frequency signal to allow permanent monitoring of consumption.
- ◆ The *Tenant* will install air curtains with an output (reducing heat loss) that must reach at least 85%.
- ◆ The ventilation must result in an output of fresh (outside) air equivalent to at least 36 m³/hr per person (the frontage grilles are designed to allow 45 m³/hr per person for tenants that so wish). If the output from the double flux ventilation group exceeds 5,000 m³/hr:
 - there must be heat recovery between extracted and fresh air (its yield must allow the pre-heating of air to be dispensed with);
 - the group's output must vary according to the level of occupation (checked by sampling the air quality).
- ◆ Any humidification of the air must be done using cold water, by streaming or pulverisation (no electrical vapour humidifier).
- ◆ It is recommended that the ventilation group should operate on night ventilation and free-cooling where outside conditions are favourable.
- ◆ Provided air extracted from shops is not impaired by particular odours (see below), it is to be retained in the mall provided its characteristics contribute to monitoring the desirable ambient conditions for the mall. Where these air quality conditions are not met or if the fire alarm is sounded, the air extracted from the shops must without fail be automatically expelled outside. In this regard:
 - the duct carrying air from the shop to the mall must be fitted with an air-tight smoke cut-off register with the ventilation group in operation;
 - the *Tenant* will place T°/HR/air quality samplers in its extraction duct (with cabling, controls and programming) allowing *NEG* to regulate whether or not air is directed into the Mall.
- ◆ The systems using coolant fluids in a quantity exceeding 5 kg will be fitted with a system to automatically detect leaks of coolant. This leak-detection system will not be based on the principle of measuring the concentration of fluid contained in the air.
- ◆ The ventilation system installed by the *Tenant* will operate in free cooling mode at night over a servomechanism from the ventilation system for the *Common Areas and Infrastructures*, so as to optimise use of the thermal inertia of the constituent elements of the building.

3.6. Transport

- ◆ *NEG's* and the *Tenant's* objective is to encourage the *Occupants* of the *Hub* to use sustainable means of transport to get to the *Hub*; the *Parties* therefore agree to actively participate in developing an "ecological transport plan".
- ◆ The *Tenant* must encourage its workforce to car pool and use ecological means of transport as much as possible (e.g. bicycle, bus).
- ◆ One or more parking spaces for bicycles, mopeds and small cars will be made available par *NEG* to the *Occupants* and users of the *Hub*. Similarly, *NEG* will ensure that showers and changing rooms are installed for cyclists.

3.7. Materials

- ◆ The *Tenant* will ensure that it uses sustainable materials that are not harmful to the environment.

- ◆ The *Tenant* will only use tree species bearing an ecological label.

3.8. Use of the Ground and Ecology

- ◆ Upon creation of the *Hub*, *NEG* will be particularly attentive to establishing the *Hub* within its surroundings.
- ◆ *NEG* is entitled to refuse to collect waste coming from the *Tenant's Private Areas* or to refuse to agree to its storage in the premises designated for that purpose if the waste coming from the *Tenants* is not sorted in the appropriate recycling container.
- ◆ The *Tenant* undertakes to put in place mechanisms allowing the recycling of printer cartridges, fluorescent lamps, batteries and cells, and other, similar materials.
- ◆ The *Tenant* undertakes to adopt sustainable purchasing codes (e.g. buying furniture and office consumables that protect the environment and reuse of excess non-perishable materials).
- ◆ In relation to supplies and equipment, the *Tenant* undertakes to prefer contract partners that favour a suitable policy of waste management, recycling of supplies and reuse of excess non-perishable materials.

3.9. Pollution

- ◆ In the event that the *Tenant* installs technical equipment liable to produce ambient noise, it must be proved that it does not alter the conclusions of the acoustic impact study carried out for the *Hub* according to standard ISO1996.
- ◆ *NEG* is authorised at any time and from time to time to measure and verify the quantity of greenhouse gases produced by the energy-production equipment utilising fossil fuels installed within the *Hub* including within the *Private Areas*.
- ◆ *NEG* may from time to time take measurements of VOC in the premises.
- ◆ *NEG* may from time to time carry out monitoring of the quality of interior air. Such monitoring exercises will cover all or part of the parameters identified as relevant taking account of the nature of the *Areas*, from the vantage point of the quality of the interior air.

4. COMMITMENTS

- *NEG* and the *Tenant* undertake to deploy all necessary means to achieve improvement in the technical features of the *Private Areas* and the *Common Areas and Infrastructures* of the *Hub*, together with their operating and use conditions in relation to environmental matters, and in particular to procure:
 - that occupation of the *Private Areas* and operation of the *Hub* accords with its conception and/or construction where that conception and/or construction have taken account of environmental performance;
 - a reduction in the consumption of energy, including in particular rationalisation of the consumption of heating and lighting and a reduction in the production of greenhouse gases;
 - a reduction in the use of air conditioning in favour of natural ventilation;
 - a reduction in the consumption of drinking water and treated used water or recovered rainwater, as the case may be;

- a reduction in the production of waste and optimisation of their treatment by favouring selective sorting and recycling and avoiding the refuse disposal of materials stemming from works carried out in the *Hub* or the *Private Areas*: construction, fitting-out works, demolition, dumping of construction items or dismantling of fitting-out equipment;
 - replacement of polluting products with products that do not have a harmful effect on the environment and especially use of non-polluting cleaning products that, wherever possible bear an ecology certification;
 - promotion of alternative means of transport for users of the Building and the persons coming there;
 - non-use of finishing materials containing a high proportion of volatile organic composites (hereinafter “*VOC*”) and improvement of the *VOC* content in the *Private and Common Areas* of the *Hub*.
- The Parties agree to procure endorsement of their commitments in the areas described above by all persons they might happen to contract with in the framework of management of the *Hub Areas* and their occupation, especially the Manager, maintenance and upkeep firms, companies carrying out works, Occupants of the *Hub*, by whatever title, and visitors.
 - At least once a year, *NEG* will organise a meeting for sustainable environmental management of the *Hub*; it will put up a notice requesting attendance by representatives of the *Tenant*, the *Manager*, the maintenance and/or upkeep firms employed by *NEG* or the *Tenant*, or any other person involved on an occasional basis or otherwise in the functioning or management of the *Hub* and whose opinion on such matters might be useful; the participants will work together in this regard on any measure aimed at improving the sustainability and ecological character of the *Hub*.
 - The *Tenant* shall adhere as strictly as possible to the measures in relation to sustainability. They may not be deviated from without the prior, written consent of *NEG* or the *Manager*.
 - The *Tenant* will ensure strict compliance with the sustainability measures by its employees, contractors, suppliers, visitors and/or any other third party present in the *Private Areas*.
 - The *Tenant* must implement sustainability measures in accordance with the environmental regulations.
 - Within six weeks of the end of each calendar year, the *Tenant* will provide *NEG* with a list of its actual energy and water consumption in the *Private Areas* during the calendar year just ended (for electricity, since the readings for other forms of energy will be “taken remotely” by *NEG*).
 - The *Tenant* must favour the use of recycled materials for fitting-out or alteration works it might want to carry out where they are authorised by the Environmental Occupancy Guide or agreed to by *NEG*. The *Tenant* will take into consideration local supply sources if they are compatible with the works it is carrying out and with the provisions of the Environmental Occupancy Guide.
 - The *Tenant* undertakes that it will agree to recycle, or procure the recycling by the firms contracted to do works, of as much waste as possible resulting from the demolition of existing structures when fitting-out or improvement works are carried out in the *Private Areas*, so as to minimise the volume of waste to be dumped. *NEG* reserves the right to monitor and measure the volume of waste leaving the *Private Areas* to be dumped. Where possible, *NEG* agrees to provide the *Tenant* with a transit zone for sorting and recycling materials whilst the works are being executed.
 - Before embarking on any kind of works, the *Tenant* must ensure that:
 - its contract partners respect any good conduct guidance that might exist concerning the approach to air quality;
 - the filtration means used meet the highest possible efficiency and that the filtration means are replaced before occupation is resumed.
 - The *Tenant* must include a clause in each of the contracts it signs for maintenance of the *Private Areas* stating that the household products that are used comply with the relevant standards and that the selective sorting and recycling principles are adhered to.
 - The *Tenant* must ensure that all contracts entered into with maintenance firms provide that their surface technicians comply with the terms hereof in relation to maintenance of the *Private Areas*. In particular, the

contracts signed by the *Tenant* in relation to special environmental equipment, such as no-water urinals, must provide for appropriate cleaning and maintenance procedures; the surface technicians in charge of maintenance will be informed in every detail of the procedures for maintaining this equipment.

- The *Tenant* must require its service providers to comply with the waste-management programme and the programmes for reducing consumption of energy and water agreed between the *Parties*. Before embarking on any kind of works, the *Tenant* must ensure adherence to this charter by the firms in charge of maintenance with which it contracts.
- The *Tenant* must programme maintenance times that are compatible with the *House Rules* so as to minimise the use of lighting, heating and air conditioning.
- It undertakes to increase awareness and offer practical training to persons charged with maintenance of the *Private and Common Areas* of the *Hub*.
- Where the financial conditions are substantially identical or do not exceed an additional cost of 5%, the *Tenant* must give preference to acquiring equipment whose characteristics are fully in line with the requirements of this charter.
- Where appropriate and possible, the *Tenant* may require that the electricity it consumes comes from a renewable energy source. In that case, the relevant costs, including any installation costs, will be borne by it alone and in full, regardless of whether it settles directly with the selected supplier or reimburses *NEG*, which itself contracts with the supplier.
- *NEG* will compare the *Tenant's* consumption of energy and water with that of similar units. If this analysis reveals that the *Tenant's* consumption of energy and water is considerably greater than the average and the *Tenant* is unable to furnish *NEG* with a satisfactory explanation, the *Tenant* must take remedial measures as soon as possible, in consultation with *NEG*.
- The sustainability measures form part of the fitting-out plans of the *Private Areas*. If the aforementioned fitting-out plans fail to take adequate account of sustainability measures, *NEG* may withhold its consent to the planned fitting-out works.
