



HQE™ SCHEME ENVIRONNEMENTAL PERFORMANCE NON RESIDENTIAL BUILDING

Assessment scheme for the environmental performance
of non-residential building under construction –
HQE™ certified by Cerway

Version: 01 Janvier 2016

www.behqe.com

4, avenue du Recteur Poincaré - 75016 Paris - France
Tel. +33 1 40 50 28 45 - abouthqe@cerway.com

NOTICE

This document forms part of the construction project certification scheme for non-residential buildings, applicable everywhere in the world outside France, for which a specific device exist.

This Assessment Scheme for the Environmental Performance of Buildings was approved by the President of Cerway on January 18th, 2016 after collecting opinions from interested parties.

Earlier versions of this document is replaced by the current version.

Version N° and date	Enforcement date	Major changes
00 / 13/09/2013	13/09/2013	Creation of the Assessment Scheme for the Environmental Performance of Buildings
01 / 15/10/2014	23/10/2014	Updating the assessment method of the performance level of the theme 1: Energy Updating the assessment method of the performance level of the target 6: Waste Evolutions of target names Replacement of the term “concern” with “requirement”
01.1 / 01/01/2016	01/02/2015	Updating the assessment method of the performance level of targets 1, 2, 3, 7, 8 for certain types of space

This Assessment Scheme for the Environmental Performance of Buildings – "Non-residential buildings" – Version of 01/02/2016, drawn up by Cerway, is protected by copyright.

The following copyright notice must be placed on every page of this scheme:

© Cerway – Assessment Scheme for the Environmental Performance of Buildings – ‘Non-residential buildings’ – 01 January 2016

In case of interpretation difference, only the French version of this document must be given credence.

SUMMARY

PART I: LIST OF PREREQUISITES (PR) AND ENVIRONMENTAL PERFORMANCE OF BUILDINGS (EPB) TARGETS 7

LIST OF PREREQUISITES 8

ENVIRONMENTAL PERFORMANCE OF BUILDINGS TARGETS :

1. SITE	29
1.1. PLANNING THE PLOT FOR SUSTAINABLE URBAN DEVELOPMENT	31
1.2. QUALITY OF OUTDOOR SPACES ACCESSIBLE FOR USERS	35
1.3. IMPACTS OF THE BUILDING ON THE LOCAL RESIDENTS	37
2. COMPONENTS	39
2.1. CONSTRUCTION CHOICES FOR THE SUSTAINABILITY AND ADAPTABILITY OF THE BUILDING	41
2.2. CONSTRUCTION CHOICES TO FACILITATE MAINTENANCE OF THE BUILDING	42
2.3. CHOOSING CONSTRUCTION PRODUCTS IN ORDER TO LIMIT THE ENVIRONMENTAL IMPACT OF THE BUILDING	43
2.4. CHOOSING CONSTRUCTION PRODUCTS IN ORDER TO LIMIT THE HEALTH-RELATED IMPACT	45
3. WORKSITE	47
3.1. OPTIMISING THE WORKSITE'S WASTE MANAGEMENT	49
3.2. LIMITING NUISANCES AND POLLUTION ON THE WORKSITE	51
3.3. LIMITING THE CONSUMPTION OF RESOURCES ON THE WORKSITE	52
4. ENERGY	53
4.1. REDUCING ENERGY USE THROUGH ARCHITECTURAL DESIGN	55
4.2. REDUCING PRIMARY ENERGY CONSUMPTION	57
4.3. REDUCING THE EMISSION OF POLLUTANTS INTO THE ATMOSPHERE	59
5. WATER	60
5.1. REDUCING DRINKING WATER CONSUMPTION	62
5.2. PLOT RAINWATER MANAGEMENT	64
5.3. WASTEWATER MANAGEMENT	65
6. WASTE	67
6.1. OPTIMISING THE RECYCLING OF OPERATIONAL WASTE	69
6.2. QUALITY OF THE ACTIVITY OPERATIONAL WASTE MANAGEMENT SYSTEM	70
7. MAINTENANCE	71
7.1. OPTIMISING THE DESIGN OF THE BUILDING FOR SIMPLIFIED MAINTENANCE AND SERVICING OF THE CONSTRUCTION'S SYSTEMS	73
7.2. DESIGN OF THE BUILDING FOR THE MONITORING AND CONTROL OF ENERGY CONSUMPTION	75
7.3. DESIGNING THE BUILDING FOR THE MONITORING AND CONTROL OF SYSTEM PERFORMANCE AND COMFORT CONDITIONS	77
8. HYGROTHERMAL COMFORT	78
8.1. ARCHITECTURAL MEASURES INTENDED TO OPTIMISE HYGROTHERMAL COMFORT ⁽¹⁾	80
8.2. CREATING HYGROTHERMAL COMFORT CONDITIONS IN HEATING MODE	81
8.3. CREATING HYGROTHERMAL COMFORT CONDITIONS IN ROOMS WHICH DO NOT HAVE ACCESS TO A COOLING SYSTEM (1)	83
8.4. CREATING HYGROTHERMAL COMFORT CONDITIONS IN COOLING MODE	84
9. ACOUSTIC COMFORT	86
9.1. CREATING AN ACOUSTIC ENVIRONMENT QUALITY APPROPRIATE FOR THE VARIOUS ROOMS	88

10. VISUAL COMFORT	99
10.1. OPTIMISING NATURAL LIGHTING	101
10.2. COMFORTABLE ARTIFICIAL LIGHTING	116
11. OLFACTORY COMFORT	118
11.1. CONTROLLING THE SOURCES OF UNPLEASANT ODOURS	120
12. SPACES QUALITY	121
12.1. LIMITING ELECTROMAGNETIC EXPOSURE	122
12.2. CREATING SPECIAL HEALTH CONDITIONS	123
13. AIR QUALITY	124
13.1. GUARANTEEING EFFECTIVE VENTILATION	126
13.2. CONTROLLING SOURCES OF INDOOR AIR POLLUTION*	128
14. WATER QUALITY	130
14.1. DESIGN QUALITY OF THE BUILDING'S INTERNAL WATER NETWORK	132
14.2. CONTROLLING THE TEMPERATURE INSIDE THE BUILDING'S INTERNAL WATER NETWORK	134
14.3. CONTROLLING WATER TREATMENTS.....	136
14.4. WATER QUALITY IN BATHING AREAS	137

PART II: TERMINOLOGY

138



Assessment of the global level of the Certificate and its 4 themes

The certificate is based on 4 themes: energy, environment, health, comfort.

Each theme is assessed on a scale of 0 to 4 stars as follows:

THEME 1: Energy: 4 stars available.

Calculation as a function of the level achieved on target 4 "energy" and the level of energy consumption:

- ✓ P Level on target 4 = 1 star;
- ✓ P Level on target 4 (with minimum of 6 pts for requirement 4.2.1) = 2 stars;
- ✓ HP Level on target 4 (with minimum of 6 pts for requirement 4.2.1) = 3 stars;
- ✓ HP Level on target 4 (with minimum of 20 pts for requirement 4.2.1) = 4 stars.

THEME 2: Environment: 4 stars available.

Calculation from the total of the "environment" targets (targets 1, 2, 3, 5, 6 and 7) of the certification scheme:

- ✓ A High Performing target = 2 points
- ✓ A Performing target = 1 point

Calculation formula :

$(\text{Total points obtained} \times 4) / 12$

(the result must then be rounded up to the nearest whole number from 0.5 inclusive)

For example:

6 HP targets = $((6 \times 2) \times 4) / 12 = 4$, that is 4 stars;

4 HP targets + 1 P target = $\Rightarrow (((4 \times 2) + (1 \times 1)) \times 4) / 12 = 3$ that is 3 stars, ...

THEME 3: Health: 4 stars available.

Calculation from the total of the 3 "health" targets (targets 12, 13 and 14) of the certification scheme:

- ✓ A High Performing target = 2 points
- ✓ A Performing target = 1 point

Calculation formula:

$(\text{Total points obtained} \times 4) / (6)$

(the result must then be rounded up to the nearest whole number from 0.5 inclusive)

For example:

3 HP targets = $((3 \times 2) \times 4) / 6 = 4$ stars;

2 targets TP + 1 target P = $((2 \times 2) + (1 \times 1)) \times 4 / 6 = 3.33 \Rightarrow$ that is 3 stars, ...

THEME 4: Comfort: 4 stars available.

Calculation from the total of the 4 "Comfort" targets (targets 8, 9, 10 and 11) of the certification scheme:

- ✓ A High Performing target = 2 points
- ✓ A Performing target = 1 point

Calculation formula:

$(\text{Total points obtained} \times 4) / 8$

(the result must then be rounded up to the nearest whole number from 0.5 inclusive)

For example:

3 HP targets + 1 P = $((3 \times 2) + (1 \times 1)) \times 4 / 8$ that is 3.5, that is 4 stars, ...

The overall level of the Certificate is then assessed as follows:

There are five possible categories as a function of the overall score achieved from the total of the stars obtained in each of the 4 themes (16 stars maximum). In order to be exceptional, regardless of the number of stars obtained, a level that is equivalent to 3 stars must be available in the energy theme:

- ✓ No stars and achievement of all of the PRE-REQUISITES: HQE PASS
- ✓ Between 1 and 4 stars: HQE GOOD
- ✓ Between 5 and 8 stars: HQE VERY GOOD
- ✓ Between 9 and 11 stars: HQE EXCELLENT
- ✓ 12 stars and more (with at least 3 stars for the theme "energy"): HQE EXCEPTIONAL



Part I:

List of Prerequisites (PR) and Environmental Performance of Buildings (EPB) Targets



LIST OF PREREQUISITES

FOREWORD

This document summarises for each target all of the PREREQUISITES that must be attained in the scheme for the Environmental Performance of Buildings.

PREREQUISITES

MANDATORY DOCUMENTS

- ✓ Applicant's Commitment (§1)
 - Analysis of the site A.1
 - Collecting the needs of stakeholders
 - Collecting regulatory and other requirements
 - Assessing investment and operating costs
 - Targeted environmental performance profile of the project (§1.1)
 - Commitment document (§1.2)
- ✓ Implementation and Operation (§2)
 - Planning the project (§2.1)
 - Assigning the employees and stakeholders' tasks , responsibilities and authorities (§2.2)
 - Assessing the employees and stakeholders – Training (§2.3)
 - Stakeholders' contracts (§2.4)
 - Communicating with stakeholders and parties involved (§2.5)
- ✓ Management (§3)

- Results of reviews and all resulting actions (§3.1)
- EPB assessments (§3.2)
- Procedure regarding corrections and corrective actions (§3.3)
- Decisions and actions resulting from changes (§3.3)
- Records regarding non-achievement of the EPB and/or failure to meet a requirement of the Project Environmental Management and identifying its cause (§3.3)
- Corrective actions implemented (§3.3)
- ✓ Capitalisation (§4)
 - Final report
 - Information on the satisfaction (or dissatisfaction) of the clients and other stakeholders

"PROJECT" DOCUMENTS

- Low environmental impact worksite agreement A.1 B
- Programme A.2
- Design documents A.3
- Contractual documents
- Works contract A.4
- Minutes of worksite meetings
- Expected upkeep and maintenance plan (or maintenance notebook) A.5
- Day-to-day notebook of the building A.6
- Informative documents for occupants A.7

DOCUMENTS FOR FUTURE USERS

- Future user Specifications A.8
- Low environmental impact worksite agreement for future users A.9

TARGET 1 – THE BUILDING'S RELATIONSHIP WITH ITS IMMEDIATE ENVIRONMENT

Assessment criterion	Points achieved
<p>1.1.1. Ensure consistency between the layout of the plot and the community's policy</p> <p>Consistency with the local land use policy and the area's sustainable development policy: Proof according to the project that sustainable urban development issues have been taken into account, in particular the limited use of locally available resources or utilities (energy, renewable energy, water and sewerage), in order to minimise new constraints (waste, infrastructure maintenance and services).</p>	PR
<p>1.1.4. Control travel methods and encourage those which are the least polluting for optimal functionality</p> <p>All modes of transport A special study is conducted with the aim of optimising the number of parking spaces with regard to the project background.</p> <hr/> <p>For logistics platform/shipping dock/refrigerated warehouse projects: Realisation of a feasibility study* on intermodal rail-road, river-road, or river-rail transport. * If applicable. Otherwise, proof demonstrating that use of intermodal transport is impossible.</p>	<p>PR</p> <p>PR</p>

TARGET 2 – INTEGRATED CHOICES OF CONSTRUCTION PRODUCTS, SYSTEMS AND PROCESSES

Assessment criterion	Points achieved
<p>2.1.1. Choose products, systems or processes whose characteristics are verified and compatible with the usage</p> <p>The applicant uses products, systems or processes whose usability characteristics have been assessed and verified, in any fields in which they exist and under conditions enabling objective competition.</p> <p>The products chosen must be compatible with the use of the building and of each area or room.</p>	PR
<p>2.1.2. Adaptability of the building over time based on its forecast lifespan and usages</p> <p>Consideration given to the adaptability of the building.</p> <p>Definition of the building's forecast lifespan.</p> <p>Booklet containing classification of zones according to expected adaptation: frequently adapted, occasionally adapted or not intended for adaptation.</p>	PR

TARGET 3 – LOW ENVIRONMENTAL IMPACT WORKSITE

Assessment criterion	Points achieved
<p>3.1.1. Identify and quantify the worksite waste by type</p> <p>Identify waste produced on the worksite and classify this waste according to the following four types:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Hazardous Waste (HW) <input type="checkbox"/> Inert waste (IW) <input type="checkbox"/> Non-hazardous waste (other than packaging waste) <input type="checkbox"/> Packaging waste <p>AND</p> <p>Throughout the construction, measures taken during construction and any pre-dismantling to determine and monitor the quantities produced (in kg or in L) for each type of waste.</p>	PR

TARGET 4 – ENERGY MANAGEMENT

Assessment criterion	Points achieved
<p>4.1.1. Improve the ability of the building to reduce its energy demand</p> <p>Justify the building's bioclimatic design by means of:</p> <ul style="list-style-type: none"> <input type="checkbox"/> An explanatory leaflet on the design of the project (volumetrics, ground plan, orientation of the glazed surfaces and bioclimatic components) according to the background and activity in the rooms, <input type="checkbox"/> A reduction in energy demand (Dheating, Dcold, Dlighting) calculated using a Dynamic Thermal Simulation. 	<i>PR</i>
<p>4.2.1. Reduce primary energy consumption due to heating, cooling, lighting, Service Water Heating, ventilation and ancillary systems linked to user comfort</p> <p>Provision of an energy booklet justifying the construction principles and equipment implemented AND Proof of a 10% saving compared with a reference level of consumption(1) using a Dynamic Simulation Model on the building services below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Heating <input type="checkbox"/> Cooling <input type="checkbox"/> Service Water Heating <input type="checkbox"/> Ventilation for heating, cooling and ventilation <input type="checkbox"/> Distribution and generation ancillary systems for heating, cooling and service water heating <input type="checkbox"/> Artificial lighting(2) 	<i>PR</i>
<p>4.2.4. Use of renewable energy</p> <p>Realization of a feasibility study on the use of renewable energy (1).</p>	<i>PR</i>
<p>4.3.1. CO2 equivalent quantities produced due to energy use</p> <p>Calculation of CO2 (eq-CO2) quantities produced by the building due to energy use by the building services considered in 4.2.1.</p>	<i>PR</i>

(1) The calculation methodology and the definition of the reference values must comply with paragraph § 4.2.1 of the practical guide.

(2) This category must take into account all types of artificial lighting with the exclusion of those cited in 4.2.2.

TARGET 5 – WATER MANAGEMENT

Assessment criterion	Points achieved				
<p>5.1.1. Limit water demand for sanitary use</p> <p>Determine water demand for sanitary use (cisterns, urinals, showers, basins, sinks and baths for hotels) according to the different equipment planned:</p> <ul style="list-style-type: none"> <input type="checkbox"/> For the project (D sanitary) <input type="checkbox"/> For a "reference" project (D ref., sanitary), i.e. the water demand the project would have with reference equipment** <p>AND</p> <p>Performance achieved relative to the reduction of water demand in sanitary facilities:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: black; color: white;"> <th style="text-align: left; padding: 5px;">Hotels *</th><th style="text-align: left; padding: 5px;">Other activities</th></tr> </thead> <tbody> <tr> <td style="padding: 5px;">$D_{\text{sanitary}}^{\text{sanitary}} \leq D_{\text{ref., sanitary}}^{\text{sanitary}}$</td><td style="padding: 5px;">$D_{\text{sanitary}} \leq D_{\text{ref., sanitary}}^{\text{sanitary}}$</td></tr> </tbody> </table> <p><i>* For hotels, this requirement only applies to guests' private spaces.</i> <i>** The conventional reference values are as follows:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Cistern: 6 litres/flush</i> <input type="checkbox"/> <i>Urinal: 3 litres/flush</i> <input type="checkbox"/> <i>Washbasin tap: 10 litres/minute</i> <input type="checkbox"/> <i>Shower: 12 litres/minute</i> 	Hotels *	Other activities	$D_{\text{sanitary}}^{\text{sanitary}} \leq D_{\text{ref., sanitary}}^{\text{sanitary}}$	$D_{\text{sanitary}} \leq D_{\text{ref., sanitary}}^{\text{sanitary}}$	PR
Hotels *	Other activities				
$D_{\text{sanitary}}^{\text{sanitary}} \leq D_{\text{ref., sanitary}}^{\text{sanitary}}$	$D_{\text{sanitary}} \leq D_{\text{ref., sanitary}}^{\text{sanitary}}$				
<p>5.1.3. Determine the overall consumption of drinking and non-drinking water</p> <p>Determination (or estimation) of the forecast consumption:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Total water consumed by the building in m³/year and m³/FU/year* <input type="checkbox"/> Drinking water consumed by the building in m³/year and m³/FU/year* <p>* The Functional Unit (FU) is m² by default (see definition)</p>	PR				
<p>5.2.2. Manage rainwater in an alternative manner</p> <p>Justified and satisfactory measures are taken relating to the temporary storage of rainwater and the plot's leakage rate.</p>	PR				

Assessment criterion	Points achieved
<p>5.3.1. Control wastewater discharges</p> <p>On-site sanitation Conducting a soil study and non-collective sanitation facility sizing study, for providing wastewater treatment AND Measures taken to ensure site treatment, compliant with the recommendations of the study and of standard EN 12566-3 [A]. Justification of the chosen outlet pipe, according to the study conclusions.</p>	PR

TARGET 6 – OPERATIONAL WASTE MANAGEMENT

Assessment criterion	Points achieved
<p>6.2.1. Adequate sizing of waste rooms/areas *</p> <p>Justified and satisfactory measures are taken to guarantee adequate waste storage prior to removal by designing waste rooms and/or areas adapted to the background of the project and sized accordingly (surface area in m²). Justify the sizing according to the estimated quantities and the choice of channels established in 6.1.1.</p>	PR
<p>6.2.2. Guarantee the hygiene of the waste rooms/areas</p> <p>Implementation of means of cleaning rooms, areas and equipment where waste is stored (water inlet and evacuation pump) AND justification of ventilation conditions. For outdoor waste areas, measures are taken to guarantee that any possible outdoor areas are protected from wind and rain.</p>	PR

TARGET 7 – MAINTENANCE AND DURABILITY OF ENVIRONMENTAL PERFORMANCE

Assessment criterion	Points achieved
<p>7.1.1 Design the building so as to facilitate maintenance/servicing interventions during the building's operation</p> <p>Production equipment Justified and satisfactory architectural and technical measures are taken to enable access to the heating/cooling, ventilation, transformer, generator and water management systems (including any possible water treatment) and their preservation (particularly from freezing).</p> <hr/> <p>Terminals Access to all technical systems is possible and the means of access is adequately sized for all equipment terminals in rooms of extended occupancy</p>	<p><i>PR</i></p> <p><i>PR</i></p>
<p>7.2.1. Make metering devices available to monitor energy consumption</p> <p>Metering devices are available for the following uses:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Heating, <input type="checkbox"/> Cooling, <input type="checkbox"/> Lighting, <input type="checkbox"/> Ventilation, <input type="checkbox"/> Service water heating 	<p><i>PR</i></p>
<p>7.2.2. Make metering devices available to monitor water consumption</p> <p>Proof of a metering tree structure enabling total water consumption to be monitored, suitable to the building's background and the apprehension of water leaks. AND According to the defined tree structure, implementation of metering devices enabling the monitoring of water consumption from the distribution network.</p>	<p><i>PR</i></p>

TARGET 8 – HYGROTHERMAL COMFORT

Assessment criterion	Points achieved
<p>8.1.1. Improve the building's ability to provide satisfying hygrothermal comfort conditions</p> <p>Justified, satisfactory architectural measures are taken to optimize hygrothermal comfort.</p>	PR
<p>8.2.1. Define/achieve an appropriate temperature level within spaces</p> <p>Definition of:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Setpoint temperatures suitable for the activities that take place there, for spaces requiring a stable temperature, <input type="checkbox"/> Setpoint temperature ranges suitable for the activities that take place there, for other spaces, <p>AND</p> <p>Achievement of these comfortable temperatures or temperature ranges during occupancy periods</p>	PR
<p>8.2.5. Control hygrometry</p> <p>Indoor bathing spaces</p> <p>Definition/achievement of a humidity ratio during cold periods suitable to bathing conditions (water temperature, water movements, etc.) consistent with the target setpoint temperature.</p> <p>AND</p> <p>Measures are taken to provide humidity control in indoor bathing spaces.</p>	PR
<p>8.3.1 Ensure a minimum thermal comfort level of thermal comfort</p> <p>Identification and definition of the "zone of occupation" and the "comfort range(2)" attainable in the zone of occupation (based on the air velocity attainable in the occupancy area).</p>	PR
<p>8.4.1. Define/achieve an appropriate temperature level in the spaces</p> <p>Definition of:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Temperature setpoints suitable for the activities that take place there, in spaces that require a stable temperature, <input type="checkbox"/> temperature range setpoints suitable for the activities that take place there, in other spaces, <p>AND</p> <p>Achievement of these comfort temperatures or temperature ranges.</p>	PR

**TARGET 9 – ACOUSTIC COMFORT***OFFICE SPACES WITH FIXED PARTITIONS**MODULAR OFFICE SPACES***TEACHING AND PRACTICAL WORK ROOMS (EDUCATION)**COMMON SPACES DEVOTED TO THE MOVEMENT OF CUSTOMERS (RETAIL – EXHIBITION HALL)**SPACES DEVOTED TO SALES (RETAIL)**PRIVATE GUEST SPACES (HOTELS)*

Assessment criterion	Points achieved
<p>9.1.1. Optimise the acoustic quality of spaces</p> <p>Adherence to programme or contractual requirements by the applicant for every acoustic indicator:</p> <ul style="list-style-type: none"><input type="checkbox"/> Weighted standardised acoustic insulation from outdoor space<input type="checkbox"/> Equipment noise level<input type="checkbox"/> Impact noise level<input type="checkbox"/> Indoor acoustics (based on specific indoor acoustic indicators)<input type="checkbox"/> Airborne noise insulation (receiving) from adjacent spaces<input type="checkbox"/> Walking noise <p>* See practical guide for the definition of "modular offices"</p>	<p>PR</p>

**OTHER SPACES CHARACTERISTIC OF THE ACTIVITY**

(Relating to an activity not covered by one of the tables above)

Assessment criterion	Points achieved
<p>9.1.1. Optimise acoustic ambience criteria in spaces</p> <p>Compliance with the Project Owner's programme or contractual prescription on spaces characteristics of the activity for each acoustic indicator:</p> <ul style="list-style-type: none"><input type="checkbox"/> Weighted standardised acoustic insulation from outdoor spaces,<input type="checkbox"/> Noise level of equipment,<input type="checkbox"/> Impact sound noise level,<input type="checkbox"/> Internal acoustics (based on specific indoor acoustic indicators),<input type="checkbox"/> Airborne noise insulation Insulation from airborne noise (receiving) from adjacent spaces,<input type="checkbox"/> Walking noise. <p>OR</p> <p>Realisation of an acoustic study on spaces characteristic of the activity regarding the six acoustic environment criteria below:</p> <ul style="list-style-type: none"><input type="checkbox"/> Definition of three performance levels for each of the six criteria: COMMON PRACTICE level, PERFORMING level and HIGH PERFORMING level<input type="checkbox"/> Compliance with the defined COMMON PRACTICE level	<p>PR</p>

**TARGET 10 – VISUAL COMFORT****OFFICE SPACES**

Assessment criterion	Points achieved
10.1.1. Have access to daylight in sensitive spaces Percentage of spaces (weighted by surface area) with access to daylight (spaces with direct or indirect access to light): Access to daylight in 100% of spaces	<i>PR</i>
10.1.2. Have access to outdoor views in sensitive spaces Access to views (horizontal to line of sight) in 100% of spaces	<i>PR</i>

CLASSROOMS AND PRACTICAL WORK ROOMS (EDUCATION)

Assessment criterion	Points achieved
10.1.1. Have access to daylight in sensitive spaces Percentage of spaces (weighted by surface area) with access to daylight (spaces with direct or indirect access to light): Access to daylight in 100% of spaces	<i>PR</i>
10.1.2. Have access to outdoor views in sensitive spaces Access to views (horizontal to line of sight) in 100% of spaces	<i>PR</i>

**LARGE COMMON SPACES DEVOTED TO MOVEMENT**

Assessment criterion	Points achieved
10.1.1. Have access to daylight Identify the focal points of the building's large common spaces (see practical guide for definition) AND Take measures to guarantee direct access to daylight at each identified focal point.	PR
10.1.2. Have access to outdoor views If the project has only one focal point Access to views from the focal point.	PR

SPACES DEVOTED TO SALES (RETAIL)

Assessment criterion	Points achieved
10.1.1. Have access to daylight Project with no common spaces devoted to the movement of customers Direct access to daylight from the cash registers	PR

EXHIBITION HALL

Assessment criterion	Points achieved
10.1.1. Have access to daylight Identify the focal points of the hall (see practical guide for definition) AND Take measures to guarantee direct access to daylight at each identified focal point.	PR
10.1.2. Have access to outdoor views If the project has only one focal point Access to views from the focal point.	PR

SPACES IN HOTEL BUILDINGS

Assessment criterion	Points achieved
<p>10.1.1. Have access to daylight in spaces sensitive to natural lighting</p> <p>Percentage of spaces (weighted by surface area) with access to daylight:</p> <ul style="list-style-type: none"> □ Private guest areas <ul style="list-style-type: none"> ▶ Access to daylight in 100% of living areas □ Food-service areas frequented by guests <ul style="list-style-type: none"> ▶ Access to daylight in 100% of spaces, unless specific restrictions due to the context apply: dense urban site, underground restaurant. 	<p>PR</p> <p>PR</p>
<p>10.1.2. Have access to views outside in spaces sensitive to natural lighting</p> <p>Percentage of spaces (weighted by surface area) with access to views (horizontal to line of sight):</p> <ul style="list-style-type: none"> □ Private guest spaces <ul style="list-style-type: none"> ▶ Access to views in 100% of living rooms □ Catering spaces frequented by the guests <ul style="list-style-type: none"> ▶ Access to views in 100% of spaces unless there is a specific constraint related to the background: dense urban site or restaurant in the basement. 	<p>PR</p> <p>PR</p>

SPACES IN THE "WAREHOUSE" AREA (LOGISTICS PLATFORM/SHIPPING DOCK)

Assessment criterion	Points achieved
<p>10.1.2. Have access to outdoor views</p> <p>Access to outside views from the dock area</p>	<p>PR</p>

ASSOCIATED SPACES (ALL TYPES OF BUILDING)

Assessment criterion	Points achieved
<p>10.1.1. Have access to daylight in sensitive spaces</p> <p>Percentage of spaces (weighted by surface area) with access to daylight (spaces with direct or indirect access to light):</p> <ul style="list-style-type: none"> □ Closed rest spaces, Staff rest spaces: <ul style="list-style-type: none"> ▶ Access to daylight in 100% of spaces □ Other spaces sensitive to natural lighting (food-service areas, meeting rooms, infirmaries, open rest areas, auditoriums, training rooms, documentation centres, reading rooms, childcare centres) <ul style="list-style-type: none"> ▶ Access to daylight, but no surface area percentage requirements 	<p><i>PR</i></p> <p><i>PR</i></p>
<p>10.1.2. Have access to outdoor views in sensitive spaces</p> <ul style="list-style-type: none"> □ Closed rest spaces, Staff rest spaces: <ul style="list-style-type: none"> ▶ Access to views in 100% of spaces □ Other spaces sensitive to natural lighting (food-service areas, meeting rooms, infirmaries, open rest areas, auditoriums, training rooms, documentation centres, reading rooms, childcare centres) <ul style="list-style-type: none"> ▶ Access to views, but no surface area percentage requirements 	<p><i>PR</i></p> <p><i>PR</i></p>

OTHER CHARACTERISTIC SPACES OF ACTIVITY

(Relating to an activity not covered by a previous table)

Assessment criterion	Points achieved
10.1.1. Have access to daylight in sensitive spaces Compliance with the programme or the applicant's contractual requirements	PR
10.1.2. Have access to outdoor views in sensitive spaces Compliance with the programme or the applicant's contractual requirements	PR
10.1.3. Creation of spaces with a minimum level of natural lighting and optimum treatment of the quality of natural light Natural light visual comfort indicators: <ul style="list-style-type: none"> <input type="checkbox"/> Lighting level <input type="checkbox"/> Quality of light treatment <hr/> Two solutions can be used to prove the achievement of the prerequisite: 1- Complying with the programme's target figures or the applicant's contractual requirements for each indicator above 2- Defining three performance levels for each indicator: <ul style="list-style-type: none"> <input type="checkbox"/> CURRENT LOCAL STANDARD PRACTICE level; <input type="checkbox"/> PERFORMING level; <input type="checkbox"/> HIGH-PERFORMING level; and complying with the CURRENT LOCAL STANDARD PRACTICE level, proven by a natural lighting study performed on the spaces characteristic of the activity with respect to the two visual environment criteria above	PR

10.2 – COMFORTABLE ARTIFICIAL LIGHTING (GENERIC REQUIREMENTS)

Assessment criterion	Points achieved
<p>10.2.1. Have optimal lighting levels</p> <p>Minimum lighting capabilities to provide: According to the type of space: comply with the values of standard EN 12464 - 1 [A] Office spaces are treated in the same way as the "Computer practice rooms" in educational buildings mentioned in standard EN 12464-1 [A] if:</p> <ul style="list-style-type: none"> <input type="checkbox"/> the room is occupied for short periods, or <input type="checkbox"/> the dimensions or the contrasts of the details of the task to be performed are high, or <input type="checkbox"/> working using screens is performed. 	PR
<p>10.2.3. Avoid glare due to artificial lighting and seek a balance between light sources from the surrounding light environment</p> <p>Identify the risks of artificial lighting glare and measures taken to install light fixtures according to the furnishing layout so as to avoid artificial lighting glare. Comply with the recommendations of standard EN 12464-1 [A]</p>	PR

TARGET 11 – OLFACTORY COMFORT

Same REREQUISITES as those of sub-target 13.1.

TARGET 12 – HEALTH QUALITY OF SPACES

Assessment criterion	Points achieved
<p>12.1.1. Identify sources of electromagnetic emissions</p> <p>"Energy" sources Identify sources of low-frequency electromagnetic wave emissions from the surrounding environment AND the project</p> <hr style="border-top: 1px dashed #000;"/> <p>"Telecom" sources Identify sources of radio waves from the immediate environment.</p>	<p><i>PR</i></p> <p><i>PR</i></p>
<p>12.2.1. Create special health conditions (except maintenance rooms)</p> <p>Spaces devoted to food preparation Measures taken in spaces devoted to food preparation to enable the progression of the different elementary operations leading to the preparation of dishes/food. Proven, satisfactory architectural measures are taken so as to encourage compliance with standard ISO 22000, particular with respect to the HACCP method during the operating phase.</p>	<p><i>PR</i></p>
<p>12.2.2. Optimise the health conditions of maintenance rooms</p> <p>Create at least one maintenance space adapted to the building.</p>	<p><i>PR</i></p>

TARGET 13 – HEALTH QUALITY OF AIR

Assessment criterion	Points achieved
<p>13.1.1. Provide air flows suitable for the activity of the rooms</p> <p>Implement one or more special ventilation system(s) (mechanical or natural), Simply manually opening the windows is not sufficient. AND If natural ventilation is planned in some spaces and it is not controlled, additional mechanical ventilation must be provided. AND If mechanical ventilation is used:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Prove the attainment of fresh air flow rates in accordance with Category II of Appendix B of standard EN 15251:2007, only taking into account pollution due to human occupancy <input type="checkbox"/> Balance the main ventilation branches <input type="checkbox"/> Comply with the design recommendations of Appendix A of standard EN 13779. 	<i>PR</i>
<p>13.2.1. Identify and reduce the effects of internal and external sources of pollution</p> <p>Drawing up a descriptive booklet identifying the internal “non-building” pollution sources and external sources AND Justified and satisfactory measures taken with respect to the project to reduce their effects.</p>	<i>PR</i>

TARGET 14 – HEALTH QUALITY OF WATER

Assessment criterion	Points achieved
<p>14.1.1. Choose materials compatible with the nature of the water being distributed</p> <p>For any contact with water intended for human consumption, choose materials from among those below :</p> <ul style="list-style-type: none"> <input type="checkbox"/> Metals, alloys and metal coverings based on copper, iron, aluminium and zinc; <input type="checkbox"/> Materials based on hydraulic binder substances, enamels, ceramics and glass; <input type="checkbox"/> Organic materials benefiting from a certificate of compliance (equivalent to the ACS (Certificate of Sanitary Compliance) approved by a recognised scientific body) 	<i>PR</i>
<p>14.1.3. Provide structure and signs to the indoor network based on water usage</p> <p>If reclaimed water is used</p> <p>Measures taken to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Separate the distributed water network from other water networks ; <input type="checkbox"/> Protect distributed water network from other networks ; <input type="checkbox"/> Mark the recovered water network with durable signs in order to differentiate water networks; <p>Proven, satisfactory measures.</p>	<i>PR</i>
<p>14.2.1. Ensure a sufficient temperature in the DHW distribution and production networks in order to minimise the risk of legionella</p> <p>Measures taken to ensure that, where the volume between the distribution point and the furthest consumption point is greater than 3 litres, the water temperature is higher than or equal to 50°C at all points of the distribution system, with the exception of the end feed pipes of the consumption points.</p> <p>Measures taken to ensure that, where the total volume of the storage equipment is greater than or equal to 400 litres, the water contained within that equipment, except the preheating tanks:</p> <ul style="list-style-type: none"> <input type="checkbox"/> is constantly at a temperature higher than or equal to 55°C at the outlet point of the equipment, or <input type="checkbox"/> can be brought up to a sufficient temperature at least once every 24 hours. <p>Insulate the DHW networks</p> <p>Depending on the water uses, define and justify the planned temperatures at the building's various drawing points. And identify the high-risk points of the internal water network, supply a map of them and take satisfactory measures to prevent the risk of legionella in the design of the internal water networks according to the identified high-risk points.</p>	<i>PR</i>

**BATHING AREAS**

Assessment criterion	Points achieved
<p>14.4.1. Treat polluted bathing water</p> <p>Design a suitable treatment process to eliminate pollution from bathing water before it is recycled, so as to ensure the health quality of the bathing water. Justify the process implemented AND Prove the concentrations of disinfectant products carried into bathing pool water</p>	<p><i>PR</i></p>

SITE



FOREWORD

The assessment of target 1: "Relationship of the Building with its Immediate Environment" is conducted in close relation to the details arising from the site analysis as required in the Project Environmental Management Requirements Reference System (MEP).

Please note the following points:

- ✓ The options for treating requirements depend on the site analysis, the project's restrictions, and the applicant's major goals.
- ✓ Sub-target 1.2: this sub-target does not apply to projects with no outside spaces.
- ✓ Sub-target 1.3: the term "neighbourhood" designates all existing buildings including those on the site in question. Sub-target 1.3 does not apply to projects with no nearby neighbourhood. Finally, sub-target 1.3 also applies to the buildings of a single site if that site has a large footprint, which requires consideration for internal urban development.

STRUCTURE OF TARGET 1

1.1 PLANNING THE PLOT FOR SUSTAINABLE URBAN DEVELOPMENT

1.2 QUALITY OF OUTDOOR SPACES ACCESSIBLE FOR USERS

1.3 IMPACTS OF THE BUILDING ON THE NEIGHBOURHOOD

ASSESSMENT OF TARGET 1

TARGET 1	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i>
PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 50% of the APPLICABLES points
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 75% of the APPLICABLES points

					Number of points to obtain (if all points are applicable) to achieve level :	
Number of points available						
Spaces / Sub-targets	1.1	1.2	1.3	Totals	P	HP
NON RESIDENTIAL BUILDING	52	20	19	91	46	69
LOGISTIC PLATFORM	48	20	27	95	48	72
SHIPPING DOCK	48	20	27	95	48	72
REFRIGERATED WAREHOUSE	48	22	27	97	49	73
RETAIL / STATION / AIRPORT TERMINAL	54	20	19	93	47	70
EXHIBITION HALL	45	20	27	92	46	69

TARGET 1 ASSESSMENT TABLES

1.1. Planning the plot for sustainable urban development

Assessment criterion	Points achieved
<p>1.1.1. Ensure consistency between the layout of the plot and the community's policy</p> <p>Consistency with the local land use policy and the area's sustainable development policy: Proof according to the project that sustainable urban development issues have been taken into account, in particular the limited use of locally available resources or utilities (energy, renewable energy, water and sewerage), in order to minimise new constraints (waste, infrastructure maintenance and services).</p> <p>Optimise land consumption and urban renewal: Measures are taken to optimise land consumption and include the project in a context of urban renewal.</p>	<p><i>PR</i></p> <p>3</p>
<p>1.1.2. Optimise access and manage flows</p> <p>Proven and satisfactory measures are taken so that the delivery and waste areas have clearly distinguished access roads enabling their own movement on the plot (in relation to other flows).</p> <p>Measures are taken to ensure the physical separation of pedestrian and bicycle access from other flows.</p> <hr/> <p>For logistics platform/shipping dock/refrigerated warehouse/exhibition hall projects: Proven measures are taken so that queuing vehicles do not drive over public roads.</p>	<p>3</p> <p>2</p> <p>1</p>

Assessment criterion	Points achieved
<p>1.1.3. Promote use of public transport</p> <p>The requirements below apply to all types of building, except for logistics hubs, loading bays, refrigerated warehouses and exhibition halls.</p> <p>Proximity to public transport</p> <p>Number of lines accessible within 600 m:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 1 line <input type="checkbox"/> 2 lines <input type="checkbox"/> 3 lines or more <p>► <i>These points cannot be accumulated</i></p> <p>Additional points:</p> <p>Number of lines accessible within 200 m:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 1 line <input type="checkbox"/> 2 lines <input type="checkbox"/> 3 lines or more <p>► <i>These points cannot be accumulated</i></p> <p>Frequency of service (for at least one line or average of several lines)</p> <ul style="list-style-type: none"> <input type="checkbox"/> At least every 20 mins <input type="checkbox"/> At least every 10 mins <p>► <i>These points cannot be accumulated</i></p> <p>Access to a transport line correspondence within 20 mins:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Of 1 to 2 lines <input type="checkbox"/> Of 3 to 4 lines <input type="checkbox"/> 5 lines or more <p>► <i>These points cannot be accumulated</i></p> <hr/> <p>For logistics hubs / loading bay / refrigerated warehouse / exhibition hall operations:</p> <p>Project located within 600 m of a public transport stop.</p>	<p>1</p> <p>2</p> <p>3</p> <p>1</p> <p>2</p> <p>3</p> <p>1</p> <p>2</p> <p>2</p> <p>3</p> <p>4</p> <p>2</p>

Assessment criterion	Points achieved
<p>1.1.4. Control travel methods and encourage those which are the least polluting for optimal functionality</p> <p>All modes of transport</p> <ul style="list-style-type: none"> <input type="checkbox"/> A special study is conducted with the aim of optimising the number of parking spaces with regard to the project background. <input type="checkbox"/> Comprehensive urban mobility study ahead of the project. <p>Encourage the use of clean vehicles</p> <ul style="list-style-type: none"> <input type="checkbox"/> A parking area is reserved for clean vehicles (including electric vehicles) equipped with devices to encourage their use, representing at least 10% of all parking spaces (light vehicles) <p>Encourage the use of walking and cycling</p> <ul style="list-style-type: none"> <input type="checkbox"/> Establishment of a space reserved for the secure parking of bicycles for personnel. <input type="checkbox"/> The bike parking spaces are designed with respect for flow estimates (for all users) (personnel at a minimum). <input type="checkbox"/> AND presence of appropriate communal facilities (changing rooms, showers) for personnel using bicycles. <p>► <i>ND presence of appropriate communal</i></p> <p>Additional point: The bike parking spaces, correctly designed as indicated above, are sheltered (rooms, roofs).</p> <hr/> <p>For retail/station/airport terminal/exhibition hall projects:</p> <p>Measures are taken to best manage optimised parking spaces (automated systems, sign-posting, positioning, etc.).</p> <hr/> <p>For logistics platform/shipping dock/refrigerated warehouse projects:</p> <p>Realisation of a feasibility study* on intermodal rail-road, river-road, or river-rail transport.</p> <p>* If applicable. Otherwise, proof demonstrating that use of intermodal transport is impossible.</p> <p>Supplies/Deliveries nearby using less-polluting modes of transportation. Choice of a site that offers intermodal transport as an option (railway or waterway connection available, etc.)</p> <p>Additional points:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Design of a rail-connected multimodal hub, <input type="checkbox"/> Design of a quayside multimodal hub. 	<p><i>PR</i></p> <p>5</p> <p>3</p> <p>1</p> <p>2</p> <p>4</p> <p>1</p> <p>2</p> <p><i>PR</i></p> <p>3</p> <p>1</p> <p>1</p>

Assessment criterion	Points achieved
<p>1.1.5. Encourage the greening of areas</p> <p>Planting of the plot</p> <ul style="list-style-type: none"> □ All outdoor spaces except plazas, courtyards, roads, pathways and parking lots are planted. <p>Maintenance notebook sent to the operator, specifying the vegetation maintenance methods specified for future operation of the building</p> <hr/> <p>Planting rate of the building</p> <ul style="list-style-type: none"> □ Roof: Planted area greater than 50% of the roof's total area □ Facades: There is a planted vertical surface representing at least 10% of the total area of the facades. <hr/> <p>Treatment of light vehicle parking lots</p> <ul style="list-style-type: none"> □ Design of at least 25% of the parking lot surface area for light vehicles to be planted. □ Design of at least 50% of the parking lot surface area for light vehicles to be planted. <p>► <i>These points cannot be accumulated</i></p>	<p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>4</p>
<p>1.1.6. Preserve/improve biodiversity</p> <p>Flora</p> <p>Plant species complement one another, are non-invasive and well-suited to the climate and soil, so as to limit the need for watering, maintenance and feeding.</p> <p>Fauna and Flora</p> <p>Consideration given to the planning of the plot so as to cause minimal disruption to the fauna (noise, lighting) and minimal damage to the flora (polluting waste). Proven, satisfactory measures.</p> <p>Based on the report written up: Realisation of a specific study to justify the species planted with a view to improving biodiversity and reconstructing the habitat and living conditions of the fauna on the plot.</p>	<p>2</p> <p>2</p> <p>2</p>

1.2. Quality of outdoor spaces accessible for users

Assessment criterion	Points achieved
<p>1.2.1. Create a satisfactory outdoor climatic environment</p> <p>With respect to the wind, precipitation and sun Based on the analysis of the site and project, proven and satisfactory architectural and ground plan measures are taken to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Protect areas sensitive to the wind and precipitation <input type="checkbox"/> Optimise exposure to the sunlight on the plot <p>Reduction of the heat island effect Implementation of a strategy to reduce the heat island effect.</p>	<p>2</p> <p>3</p>
<p>1.2.2. Create a satisfactory outdoor acoustic environment</p> <p>Layout of the plot consistent with the outdoor noise sources identified in the site analysis in order to protect the outdoor spaces used based on the activities for which they are intended . Proven and satisfactory planning and ground plan measures are taken.</p> <hr style="border-top: 1px dashed #00a0e3;"/> <p>Proven and satisfactory architectural and/or technical measures are taken to limit sound nuisance on the plot's outdoor spaces.</p>	<p>2</p> <p>2</p>
<p>1.2.3. Create a satisfactory visual ambience</p> <p>Layout of the plot to optimise access to views consistent with the potential and constraints of the natural and built environment identified in the site analysis.</p>	<p>2</p>

Assessment criterion	Points achieved
<p>1.2.4. Ensure the right to sanitary quality of the spaces for users on the plot</p> <p>Layout of the plot taking into account the risks of olfactory pollution or nuisances on outdoor spaces. Choice of plant species with the aim of minimising the health impact on the plot by minimising allergenic and toxic species.</p> <p>Realisation of a specific study on the landscaping of the project and the impact of the allergenic potential of the species planted.</p> <hr/> <p>For refrigerated warehouse projects: Consideration and measures taken to limit health risks on outdoor spaces caused by industrial cold production systems:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Respect of a concentration of legionella in the system's water circuit of less than 1,000 CFU /L according to the standardised method of standard ISO 11731-2 [A] 	<p>2</p> <p>4</p> <p>2</p>
<p>1.2.5. Ensure sufficient outdoor lighting at night</p> <p>Layout of the plot to ensure optimal outdoor lighting based on the spaces and activities. AND Proven and satisfactory measures are taken to optimise conditions of comfort and safety (sufficient level of lighting) for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Entrances, <input type="checkbox"/> Access roads, <input type="checkbox"/> Parking areas (light vehicles, bikes), <input type="checkbox"/> Traffic areas connecting the buildings to the parking lots, <input type="checkbox"/> Delivery and waste sorting areas, <input type="checkbox"/> Areas with low natural lighting or sensitive from a security point of view. 	<p>3</p>

Assessment criterion	Points achieved
<p>1.3.1. Ensure the local residents' right to sun and natural light</p> <p>Realisation of a specific study with the aim of identifying the local residents' right to sun and natural light with regard to the status quo.</p> <p>AND</p> <p>Measures are taken to optimise this right, particularly by working on the sunshine duration and on the masking effects that the construction of the project has on neighbouring buildings.</p>	3
<p>1.3.2. Ensure the local residents' right to calm</p> <p>Regarding noise from outdoor and indoor spaces and noise from equipment</p> <p>Appropriate location:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Of noisy outdoor spaces (activities, entrances, roads, deliveries, waste, etc., excluding equipment and activity rooms) in order to minimise inconvenience to local residents, <input type="checkbox"/> Of equipment and rooms which emit noise so as to limit the propagation of noise from equipment beyond the site's boundaries (day and night). 	2
<p>1.3.3. Ensure the local residents' right to views</p> <p>The project improves the local residents' access to views, satisfying at least one of the following conditions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Planning landscaped spaces with a greater surface area and visibility than those existing, <input type="checkbox"/> Greening the building structure, <input type="checkbox"/> Reducing masks. <hr/> <p>For logistics platform/shipping dock/refrigerated warehouse/exhibition hall projects: Compliance with the rule :</p> <ul style="list-style-type: none"> <input type="checkbox"/> L = 2H (if the neighbourhood is sensitive) <input type="checkbox"/> L = 3H (if the neighbourhood is sensitive) <p>► 3= 3H (if the neighbourhood is sens</p>	<div>3</div> <div>1</div> <div>3</div>
<p>1.3.4. Ensure the right to sanitary quality of the spaces for local residents</p> <p>Layout of the plot taking into account the risks of pollution or olfactory nuisances for the local residents.</p> <p>Choice of plant species with the aim of minimising the health impact for the locals by minimising allergenic and toxic species.</p> <p>Realisation of a specific study on the landscaping of the project and the impact of the allergenic potential of the species planted for the local residents.</p>	<div>2</div> <div>4</div>

* Non cumulative points

Assessment criterion	Points achieved
<p>1.3.5. Limit visual nuisances at night</p> <p>Lighting using a specific (localised) lighting device of:</p> <ul style="list-style-type: none"> <input type="checkbox"/> The functional pathways between buildings on a single site, <input type="checkbox"/> The pedestrian pathways between the parking areas (vehicles and bikes) and the building entrances, <input type="checkbox"/> The delivery and waste sorting areas, <p>AND</p> <p>Measures are taken so that this lighting does not cause visual nuisance to the local residents at night.</p> <p>Measures are taken so that the lighting for the site's sign-posting does not cause visual nuisance to the local residents at night.</p>	<p>3</p> <p>2</p>
<p>1.3.6. Choose a site that causes no nuisance to local residents</p> <p>For logistics platform/shipping dock/refrigerated warehouse/exhibition hall projects:</p> <p>Providing services to the site may not cause heavy vehicles to travel through the town or city centre ;</p> <p>Providing services to the site may not cause heavy vehicles to travel near residences located less than :</p> <ul style="list-style-type: none"> <input type="checkbox"/> Near residences located less than 100 m from the road <input type="checkbox"/> Near residences located less than 300 m from the road <p>► <i>These points cannot be accumulated</i></p>	<p>1</p> <p>2</p> <p>4</p>



COMPONENTS

STRUCTURE OF TARGET 2

2.1 CONSTRUCTION CHOICES FOR THE SUSTAINABILITY AND ADAPTABILITY OF THE BUILDING

2.2 CONSTRUCTION CHOICES TO FACILITATE MAINTENANCE OF THE BUILDING

2.3 CHOOSING CONSTRUCTION PRODUCTS IN ORDER TO LIMIT THE ENVIRONMENTAL IMPACT OF THE BUILDING

2.4 CHOOSING CONSTRUCTION PRODUCTS IN ORDER TO LIMIT THE HEALTH-RELATED IMPACT OF THE BUILDING

ASSESSMENT OF TARGET 2

TARGET 2	ASSESSMENT
PR	Compliance with <i>PREREQUISITE</i>
PERFORMING	Compliance with <i>PREREQUISITE</i> AND ≥ 35% of the APPLICABLES points Including 1 point for requirement 2.3.1
HIGH PERFORMING	Compliance with <i>PREREQUISITE</i> AND ≥ 60% of the APPLICABLES points Including 3 points for requirement 2.3.2

Number of points available						Number of points to obtain (if all points are applicable) to achieve level :	
Spaces / Sub-targets	2.1	2.2	2.3	2.4	Totals	P	HP
NON-RESIDENTIAL BUILDING (OTHER THAN THOSE LISTED BELOW)	19	5	15	14	53	19	32
LOGISTIC PLATFORM, SHIPPING DOCK, REFRIGERATED WAREHOUSE, AND EXHIBITION HALL	19	5	15	0	39	14	24

TARGET 2 ASSESSMENT TABLES

2.1. Construction choices for the sustainability and adaptability of the building

Assessment criterion	Points achieved
<p>2.1.1. Choose products, systems or processes whose characteristics are verified and compatible with the usage</p> <p>The applicant uses products, systems or processes whose usability characteristics have been assessed and verified, in any fields in which they exist and under conditions enabling objective competition.</p> <p>The products chosen must be compatible with the use of the building and of each area or room.</p>	PR
<p>2.1.2. Adaptability of the building over time based on its forecast lifespan and usages</p> <p>Consideration given to the adaptability of the building. Definition of the building's forecast lifespan. Booklet containing classification of zones according to expected adaptation: frequently adapted, occasionally adapted or not intended for adaptation.</p> <p>For frequently and occasionally adapted zones, technical measures taken to facilitate their adaptation (systems, light work, structure).</p> <p>Considerations and measures are taken to envisage a change or development in the use of the building (structure, networks).</p> <p>Adapt the construction choices to the building's lifespan Proof demonstrating that the choices made are appropriate for the forecast and short lifespans of each of the products, systems and processes of STRUCTURAL AND FINISHING work.</p>	PR 2 4 3

Assessment criterion	Points achieved
<p>2.1.3. Removability/separability of the construction products and processes with a view to optimal environmental management of their end of life</p> <p>Consistent with the consideration given in 2.1.2, attention paid and measures taken to ensure the removability/separability of:</p> <p>Finishing products excluding structure, building envelope and technical equipment</p> <ul style="list-style-type: none"> <input type="checkbox"/> From 20 to 50% (in surface area) <input type="checkbox"/> More than 50% (in surface area) <p>► <i>These points cannot be accumulated</i></p> <p>Building envelope</p> <ul style="list-style-type: none"> <input type="checkbox"/> More than 50% (in surface area) <p>Building structure</p> <p>Construction processes enable maximum separation of the products with a view to optimal environmental management of their end of life</p>	<p>1</p> <p>3</p> <p>4</p> <p>3</p>

2.2. Construction choices to facilitate maintenance of the building

Assessment criterion	Points achieved
<p>2.2.1. Choosing construction products, systems and processes which are easy to maintain and limit the environmental impact of maintenance</p> <p>Establishment of the list of products necessary to maintaining the internal floor coverings products. Choice of construction products which are easy to maintain and limit the environmental impacts of maintenance (energy (kWh/sqm), CO₂ (keqCO₂/sqm), water (m³/sqm), waste (kg/sqm)):</p> <ul style="list-style-type: none"> <input type="checkbox"/> For indoor coverings (floors, walls and ceilings), based on the expected frequency of maintenance. <input type="checkbox"/> For indoor coverings (floors, walls and ceilings) AND for at least 50% of the surface area of two of the four categories below: <ul style="list-style-type: none"> ► Windows, joinery and glazing, ► Facades, ► Solar shading devices, ► Rooftops. <p>► <i>These points cannot be accumulated</i></p>	<p>1</p> <p>2</p> <p>4</p>

2.3. Choosing construction products in order to limit the environmental impact of the building

Assessment criterion	Points achieved
<p>2.3.1. Determine the environmental impact of the construction products</p> <p>Determination of the environmental impact indicators of the construction products, in accordance with European standard prEN 15804 or international standard ISO 21930.</p> <ul style="list-style-type: none"> <input type="checkbox"/> For at least 50% of the components in at least two categories of finishing products AND one category of structural and/or road products <input type="checkbox"/> For at least 50% of the components in at least four categories of finishing products AND two categories of structural and/or road products <input type="checkbox"/> For at least 80% of the components in at least four categories of finishing products AND two categories of structural and/or road products <input type="checkbox"/> For at least 80% of the components in all categories of products (structural and/or road and finishing) <input type="checkbox"/> For at least 100% of the components in all categories of products (structural and finishing). <p>► <i>These points cannot be accumulated</i></p>	<p>1</p> <p>2</p> <p>4</p> <p>6</p> <p>7</p>
<p>2.3.2. Choose construction products to limit the environmental impact of the building</p> <p>For all products whose environmental impact indicators are known in accordance with European standard prEN 15804 or international standard ISO 21930:</p> <p>Different scenarios relating to the products' contributions to environmental performance have been studied in accordance with European standard prEN 15978 or international standard ISO 21931</p> <ul style="list-style-type: none"> <input type="checkbox"/> For the structure OR for the finishing: <input type="checkbox"/> For the structure AND for the finishing: <p>► <i>These points cannot be accumulated</i></p> <p>AND</p> <p>These scenarios are taken into account in the choice of construction products and principles implemented.</p>	<p>2</p> <p>3</p>
<p>2.3.3. Use materials and products enabling the least polluting site procurement in terms of CO₂</p> <p>At least for the products studied in 2.3.1:</p> <p>Definition of a transport strategy for the materials and products from the production, processing or extraction site to the worksite, giving priority to the least polluting supply lines, enabling CO₂ emissions to be limited.</p>	<p>2</p>

Assessment criterion	Points achieved
2.3.4. Implement materials and products enabling CO₂ to be trapped Implementation of a volume of FSC- or PEFC-certified wood of at least: <ul style="list-style-type: none"><input type="checkbox"/> 30 dm³/m²<input type="checkbox"/> 60 dm³/m² <p>► <i>These points cannot be accumulated</i></p>	 2 3

2.4. Choosing construction products in order to limit the health-related impact

***IMPORTANT:** The storage rooms of logistics platforms, shipping docks and refrigerated warehouses as well as the halls of exhibition buildings are not concerned by sub-target 2.4.

Assessment criterion	Points achieved
<p>2.4.1. Determine the health-related impact of construction products with respect to indoor air quality</p> <p>Among the building's materials <u>in contact with indoor air</u>: For 100% of the construction and decoration products, emissions of the substances listed below are less than 1µg/m³:</p> <ul style="list-style-type: none"> ▶ Trichlorethylene, ▶ Benzene, ▶ Bis(2-ethylhexyl)phthalate, ▶ Dibutyl phthalate, <p>AND For 100% of the surface coverings, compliance with the conditions of Appendix II Table A Phase II of directive 2010/79/EU</p> <p>AND Determination of the emissions of TVOC and formaldehyde for at least :</p> <ul style="list-style-type: none"> <input type="checkbox"/> 50% <input type="checkbox"/> 80% <input type="checkbox"/> 100% <p>of the products in direct contact with indoor air (in surface area).</p> <p>▶ <i>These points cannot be accumulated</i></p>	<p>1</p> <p>2</p> <p>4</p>
<p>2.4.2. Choose construction products to limit the health-related impact of the building</p> <p>Account taken of health-related impacts (see above: TVOC and formaldehyde emissions) in the choice of products in contact with the indoor air</p> <p>AND Of the percentage of products considered in 2.4.1, the products that make up the floor/wall/ceiling surfaces in contact with indoor air comply with the following TVOC and formaldehyde emission limits:</p> <p>TVOC:</p> <ul style="list-style-type: none"> <input type="checkbox"/> < 2,000 µg/m³ <input type="checkbox"/> < 1,500 µg/m³ <input type="checkbox"/> < 1,000 µg/m³ <p>▶ <i>1,000 µg/m³: < 120 µg/mducts consid</i></p> <p>Formaldehyde:</p> <ul style="list-style-type: none"> <input type="checkbox"/> < 120 µg/m³ <input type="checkbox"/> < 60 µg/m³ <input type="checkbox"/> < 10 µg/m³ <p>▶ <i>10 µg/mmde: < 120 µg/mducts consid</i></p>	<p>1</p> <p>2</p> <p>4</p> <p>1</p> <p>2</p> <p>4</p>



Assessment criterion	Points achieved
<p>2.4.3. Limit pollution due to wood treatments</p> <p>Any wood that is used is:</p> <ul style="list-style-type: none"><input type="checkbox"/> A naturally sustainable species (in accordance with standards EN 350-1, EN 350-2 and EN 460), without preventive treatments, for the hazard category in question <p>OR</p> <ul style="list-style-type: none"><input type="checkbox"/> Treated with a CTB P+ certified product or equivalent appropriate to the hazard category	2



WORKSITE

STRUCTURE OF TARGET 3

3.1. OPTIMISING THE WORKSITE'S WASTE MANAGEMENT

3.2 LIMITING NUISANCES AND POLLUTION ON THE WORKSITE

3.3 LIMITING THE CONSUMPTION OF RESOURCES ON THE WORKSITE

ASSESSMENT OF TARGET 3

TARGET 3	ASSESSMENT
PR	Compliance with <i>PREREQUISITE</i>
PERFORMING	Compliance with <i>PREREQUISITE</i> AND ≥ 35% of the APPLICABLES points
HIGH PERFORMING	Compliance with <i>PREREQUISITE</i> AND ≥ 60% of the APPLICABLES points

Number of points available					Number of points to obtain (if all points are applicable) to achieve level :	
Sub-targets	3.1	3.2	3.3	Totals	P	HP
NON-RESIDENTIAL BUILDINGS	21	13	6	40	14	24

TARGET 3 ASSESSMENT TABLES

3.1. Optimising the worksite's waste management

Assessment criterion	Points achieved
<p>3.1.1. Identify and quantify the worksite waste by type</p> <p>Identify waste produced on the worksite and classify this waste according to the following four types:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Hazardous Waste (HW) <input type="checkbox"/> Inert waste (IW) <input type="checkbox"/> Non-hazardous waste (other than packaging waste) <input type="checkbox"/> Packaging waste <p>AND</p> <p>Throughout the construction, measures taken during construction and any pre-dismantling to determine and monitor the quantities produced (in kg or in L) for each type of waste.</p>	PR
<p>3.1.2. Reduce worksite waste at the source</p> <p>Take technical and/or organisational measures to reduce the production of worksite waste at source. Proven, satisfactory measures.</p> <p>Measures taken with regard to construction techniques to limit the production of waste at source . Proven, satisfactory measures.</p>	<p>1</p> <p>3</p>

Assessment criterion	Points achieved
<p>3.1.3. Recycle the worksite's waste as well as possible , as appropriate for the existing local recycling channels, and ascertain the appropriate destination of the waste</p> <p>Ensuring traceability of the waste by keeping tracking slips or any other similar measure enabling the waste's destination to be proven.</p> <hr/> <p>Recycling waste (excluding waste from earthworks) Choice of the most satisfactory disposal channel for each type of waste, from a technical, environmental, and economic viewpoint, prioritising recycling as much as possible. AND Percentage of waste recycled (with respect to the total mass of waste generated) is greater than:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 10% (respectively 20% during pre-dismantling) 1 <input type="checkbox"/> 20% (respectively 30% during pre-dismantling) 2 <input type="checkbox"/> 30% (respectively 40% during pre-dismantling) 3 <input type="checkbox"/> 40% (respectively 50% during pre-dismantling) 4 <input type="checkbox"/> 50% (respectively 60% during pre-dismantling) 5 <input type="checkbox"/> 70% (respectively 80% during pre-dismantling) 6 <p>► <i>These points cannot be accumulated</i></p> <hr/> <p>Recycling waste material Percentage of waste recycled using material recycling (with respect to the total mass of recyclable waste generated) greater than:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 10% 1 <input type="checkbox"/> 20% 2 <input type="checkbox"/> 50% 4 <input type="checkbox"/> 70% 5 <p>► <i>These points cannot be accumulated</i></p>	3
<p>3.1.4. Optimise the collection, sorting and grouping of the worksite's waste</p> <p>Based on the site analysis, realisation of a worksite waste management plan specifying:</p> <ul style="list-style-type: none"> <input type="checkbox"/> How each type of waste is collected and sorted, <input type="checkbox"/> The level of detail practiced in sorting types of waste, based on the space available and downstream collection channels. <p>AND Ensuring the worksite waste management plan is followed and respected during construction</p>	3

Assessment criterion	Points achieved
<p>3.2.1. Limit acoustic nuisances</p> <p>In the presence of local residents Establish a schedule of noisy phases on the worksite and the measures taken (of an organisational nature and/or on the equipment and machinery) to limit acoustic nuisances for the local residents based on this schedule. Additional points Monitoring the noise levels and/or vibrations using a specific device, in accordance with the monitoring protocol most appropriate to the background and in relation to the established schedule AND Corrective measures taken where necessary.</p>	<p>1</p> <p>2</p>
<p>3.2.2. Limit visual nuisances and optimise the cleanliness of the worksite</p> <p>Measures are taken to limit visual nuisances owing to the worksite and to guarantee its cleanliness. Proven, satisfactory measures.</p>	<p>1</p>
<p>3.2.3. Avoid water and land pollution</p> <p>Identify potentially polluting products used during construction (mainly concrete form oil) and choosing products offering a guarantee of low toxicity.</p> <hr/> <p>Measures are taken to limit water and land pollution:</p> <ul style="list-style-type: none"> <input type="checkbox"/> By recovering and treating the worksite's polluting effluent s, <input type="checkbox"/> By optimising the cleaning of work machinery and equipment. 	<p>2</p> <p>2</p> <p>1</p>
<p>3.2.4. Avoid air pollution and control the health-related impact on the air</p> <p>Measures are taken regarding construction techniques and/or of an organisational nature to limit air pollution and the release of dust. Proven, satisfactory measures.</p>	<p>2</p>
<p>3.2.5. Preserve biodiversity during construction</p> <p>Measures are taken with regard to the worksite layout to preserve plant and animal biodiversity (with respect to the background) during the construction. Proven, satisfactory measures. In particular, consideration is given to cause minimal disruption to the fauna (noise, lighting) and minimal damage to the flora (polluting emissions).</p>	<p>2</p>

3.3. Limiting the consumption of resources on the worksite

Assessment criterion	Points achieved
<p>3.3.1. Reduce energy consumption on the worksite</p> <p>Measures are taken to adopt a strategy to reduce the consumption of energy during construction. Proven, satisfactory measures.</p> <p>AND</p> <p>Measures are taken if excess consumption is detected.</p>	2
<p>3.3.2. Reduce water consumption on the worksite</p> <p>Measures are taken to adopt a strategy to reduce the consumption of water during construction. Proven, satisfactory measures.</p> <p>AND</p> <p>Measures are taken if excess consumption is detected.</p>	2
<p>3.3.3. Facilitate the reuse of excavated earth on the site</p> <p>Measures are taken to reuse earth excavated during earthworks on the site and thus avoid it being removed from the worksite. Proven, satisfactory measures.</p> <p>AND</p> <p>A neutral balance of earth removed/restored is proven.</p>	2

ENERGY



STRUCTURE OF TARGET 4

4.1. REDUCING ENERGY USE THROUGH ARCHITECTURAL DESIGN

4.2. REDUCING PRIMARY ENERGY CONSUMPTION

4.3. REDUCING THE EMISSION OF POLLUTANTS INTO THE ATMOSPHERE

ASSESSMENT OF TARGET 4

TARGET 4	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i>
PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 30% of the APPLICABLES points Including 5 POINTS for requirement 4.2.1
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 50% of the APPLICABLES points Including 6 POINTS for requirement 4.2.1

					Number of points to obtain (if all points are applicable) to achieve level :	
umber of points available						
Spaces / Sub-targets	4.1	4.2	4.3	Totals	P	HP
NON-RESIDENTIAL BUILDINGS OTHER THAN REFRIGERATED WAREHOUSES	4	33	8	45	14	23
REFRIGERATED WAREHOUSES	8	36	11	55	17	28

TARGET 4 ASSESSMENT TABLES

4.1. Reducing energy use through architectural design

Assessment criterion	Points achieved						
<p>4.1.1. Improve the ability of the building to reduce its energy demand</p> <p>Justify the building's bioclimatic design by means of:</p> <ul style="list-style-type: none"> □ An explanatory leaflet on the design of the project (volumetrics, ground plan, orientation of the glazed surfaces and bioclimatic components) according to the background and activity in the rooms, □ A reduction in energy demand (Dheating, Dcold, Dlighting) calculated using a Dynamic Simulation Model. 	PR						
<p>4.1.2. Improve the air permeability of the building envelope</p> <p>Justified and satisfactory measures are taken to limit air leakage in the building envelope. A booklet is drafted with details of the project components sensitive to air permeability.</p> <hr/> <p>An expression of the air permeability index target value by means of a measurement made in accordance with standard ISO 9972 [A] Realisation of an air permeability measurement of the building in accordance with standard ISO 9972 AND The result of the measurement, Q4Pa_surf, is less than or equal to the values below:</p> <table> <tr> <th>Sector</th><th>Air permeability Q4Pa_surf (in m³/(h.m²))</th></tr> <tr> <td>Offices, hotels, catering, education, small retailers and health establishments</td><td>1.7</td></tr> <tr> <td>Other uses</td><td>3.0</td></tr> </table> <p>► <i>These points cannot be accumulated</i></p>	Sector	Air permeability Q4Pa_surf (in m ³ /(h.m ²))	Offices, hotels, catering, education, small retailers and health establishments	1.7	Other uses	3.0	<p>2</p> <p>1</p> <p>2</p>
Sector	Air permeability Q4Pa_surf (in m ³ /(h.m ²))						
Offices, hotels, catering, education, small retailers and health establishments	1.7						
Other uses	3.0						

Assessment criterion	Points achieved
<p>4.1.3. Improve the ability of refrigerated warehouse envelopes to limit heat loss</p> <p>For refrigerated warehouses with a positive controlled temperature Expression of the Uaverage coefficient for the roof and vertical walls (average value weighted by the surfaces of the basic Uwall coefficients , calculated according to the Thermal Regulation in force (W/m².K))</p> <ul style="list-style-type: none"> <input type="checkbox"/> Uaverage< 0.24 W/m²K <input type="checkbox"/> Uaverage< 0.20 W/m²K <p>► <i>These points cannot be accumulated</i></p> <p>With a possible variation in absolute value of the basic Uwall by 10% in relation to Uaverage.</p> <p>For refrigerated warehouses with a negative controlled temperature Expression of the Uaverage coefficient for the roof and vertical walls (average value weighted by the surfaces of the basic Uwall coefficients, calculated according to the Thermal Regulatory Rules in force (W/m².K))</p> <ul style="list-style-type: none"> <input type="checkbox"/> Uaverage< 0.13 W/m²K <input type="checkbox"/> Uaverage< 0.12 W/m²K <p>► <i>These points cannot be accumulated</i></p> <p>With a possible variation in absolute value of the basic Uwall by 10% in relation to Uaverage.</p> <hr/> <p>Sectional doors opening onto a non-cooled space must respect standards in force and prove to have the following heat transmission values:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Udoor<0.6W/m²K <input type="checkbox"/> Udoor<0.35W/m²K <p>► <i>These points cannot be accumulated</i></p>	<p>1</p> <p>2</p> <p>1</p> <p>2</p> <p>1</p> <p>2</p>

Assessment criterion	Points achieved
<p>4.2.1. Reduce primary energy consumption due to heating, cooling, lighting, Service Water Heating, ventilation and ancillary systems linked to user comfort</p> <p>Provision of an energy booklet justifying the construction principles and equipment implemented AND Proof of a 10% saving compared with a reference level of consumption (1) using a Dynamic Simulation Model on the building services below only:</p> <ul style="list-style-type: none"> ▶ Heating ▶ Cooling ▶ Service Water Heating ▶ Ventilation for heating, cooling and ventilation ▶ Distribution and generation ancillary systems for heating, cooling and service water heating ▶ Artificial lighting (2) <p>Assessment of the building's energy performance:</p> <ul style="list-style-type: none"> ▶ 20% savings ▶ 30% savings ▶ 40% savings ▶ 50% savings ▶ 60% savings ▶ 70% savings ▶ 80% savings ▶ Positive energy building <p>▶ <i>These points cannot be accumulated</i></p>	<p><i>PR</i></p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>6</p> <p>10</p> <p>15</p> <p>20</p>
<p>4.2.2. Limit the consumption of artificial lighting not related to the visual comfort of users</p> <p>Justified and satisfactory measures are taken to limit the energy consumption of artificial lighting not related to the visual comfort of users and relating to:</p> <ul style="list-style-type: none"> ▶ Security lighting ▶ Lighting due to process-related equipment ▶ Lighting to emphasize objects and goods ▶ Parking lot lighting ▶ Outdoor lighting <p>The measures taken concern the power and/or management of artificial lighting <i>(1) The calculation methodology and the definition of the reference values must comply with the certification guide</i></p>	<p>1</p> <p>1</p> <p>2</p> <p>2</p> <p>2</p>

(2) This building service must take into account all types of artificial lighting with the exclusion of those cited in 4.2.2.

Assessment criterion	Points achieved
<p>4.2.3. Limit consumption by electromechanical equipment</p> <p>Justified and satisfactory measures are taken to limit energy consumption regarding electromechanical equipment.</p>	
<p>4.2.4. Use of renewable energy</p> <p>Realization of a feasibility study ⁽¹⁾ on the use of renewable energy. Use of renewable energy channels:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Expression of the coverage percentage for energy demand from renewable energy (broken down by building service). <input type="checkbox"/> Analysis and justification of the relevance of the chosen channels. <p>AND The building's total energy demand relating to heating, cooling, artificial lighting and service water heating are covered up to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 10% <input type="checkbox"/> 20% <input type="checkbox"/> 30% <input type="checkbox"/> 40% <p>► <i>These points cannot be accumulated</i></p>	<p>PR</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p>
<p>4.2.5. Reduce the primary energy consumption of the refrigeration systems used in refrigerated warehouses</p> <p>Expression of the facility's overall COP value. Performance achieved:</p> <p>Warehouses with a controlled positive temperature of 5 to 12°C:</p> <ul style="list-style-type: none"> <input type="checkbox"/> COP > 2.80 <input type="checkbox"/> COP > 3.10 <p>► <i>These points cannot be accumulated</i></p> <p>Warehouses with a controlled positive temperature of 0 to 5°C:</p> <ul style="list-style-type: none"> <input type="checkbox"/> COP > 2.60 <input type="checkbox"/> COP > 2.75 <p>► <i>These points cannot be accumulated</i></p> <p>Warehouses with a negative controlled temperature:</p> <ul style="list-style-type: none"> <input type="checkbox"/> COP > 1.40 <input type="checkbox"/> COP > 1.70 <p>► <i>These points cannot be accumulated</i></p> <p><i>(1) The items to include in this study are specified in the guide.</i></p>	<p>1</p> <p>3</p> <p>1</p> <p>3</p> <p>1</p> <p>3</p>

4.3. Reducing the emission of pollutants into the atmosphere

Assessment criterion	Points achieved
<p>4.3.1. CO₂ equivalent quantities produced due to energy use</p> <p>Calculation of CO₂ (eq-CO₂) quantities produced by the building due to energy use by the building services considered in 4.2.1.</p> <p>Justify that the choice of energy (calculation of the quantities of CO₂ (eq-CO₂) produced for different energy alternatives) corresponds to the best possible compromise with respect to these CO₂ emissions and the project owner's environmental goals.</p> <p>Reduction in the quantity of CO₂ emissions compared with reference (1) CO₂ equivalent emissions produced due to energy use by fixed building services, proving a saving of:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 10% <input type="checkbox"/> 20% <input type="checkbox"/> 30% <p>► <i>These points cannot be accumulated</i></p>	<p><i>PR</i></p> <p>1</p> <p>1</p> <p>2</p> <p>3</p>
<p>4.3.2. SO₂ equivalent quantities produced due to energy use</p> <p>Calculation of SO₂ (eq-SO₂) quantities produced by the building due to energy use by the building services considered in 4.2.1.</p> <p>Justify that the choice of energy (study of several energy alternatives) corresponds to the best possible compromise with respect to these SO₂ emissions and the project owner's environmental goals.</p>	<p>1</p> <p>2</p>
<p>4.3.3. Impact on the ozone layer</p> <p>Choice of energy equipment that uses zero ODP components .</p>	<p>1</p>
<p>4.3.4. Choose the refrigerant for the refrigerated warehouse facilities to limit its contribution to the environmental impacts</p> <p>Expression of the global warming potential IGWP (kg eq CO₂/kW) value of the facility</p> <p>Performance achieved:</p> <p>Warehouses with a positive or negative controlled temperature:</p> <ul style="list-style-type: none"> <input type="checkbox"/> IGWP < 750 <input type="checkbox"/> IGWP < 10 <p>► <i>These points cannot be accumulated</i></p> <p>(1) Reference CO₂ equivalent emissions are calculated in accordance with the reference Dynamic Simulation Model (DSM) used in 4.2.1.</p>	<p>1</p> <p>3</p>

WATER



STRUCTURE OF TARGET 5

5.1 REDUCING DISTRIBUTED DRINKING WATER CONSUMPTION

5.2 RAINWATER MANAGEMENT

5.3 WASTEWATER MANAGEMENT

ASSESSMENT OF TARGET 5

TARGET 5	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i>
PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 15% of the APPLICABLES points
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 30% of the APPLICABLES points

					Number of points available		Number of points to obtain (if all points are applicable) to achieve level :	
Sub-targets	5.1	5.2	5.3	Totals	P	HP		
NON-RESIDENTIAL BUILDINGS	12	16	12	40	6	12		

TARGET 5 ASSESSMENT TABLES

5.1. Reducing drinking water consumption

Assessment criterion	Points achieved										
<p>5.1.1. Limit water demand for sanitary use</p> <p>Determine water demand for sanitary use (cisterns, urinals, showers, basins, sinks and baths for hotels) according to the different equipment planned:</p> <ul style="list-style-type: none"> <input type="checkbox"/> For the project (D_{sanitary}) <input type="checkbox"/> For a "reference" project ($D_{\text{ref., sanitary}}$), i.e. the water demand the project would have with reference equipment ⁽²⁾ <p>AND</p> <p>Performance achieved relative to the reduction of water demand in sanitary facilities:</p> <table border="1"> <thead> <tr> <th>Hotels ⁽¹⁾</th><th>Other activities</th></tr> </thead> <tbody> <tr> <td>$D_{\text{sanitary}} \leq D_{\text{ref., sanitary}}$</td><td>$D_{\text{sanitary}} \leq D_{\text{ref., sanitary}}$</td></tr> <tr> <td>$D_{\text{sanitary}} \leq 0.9 D_{\text{ref., sanitary}}$</td><td>$D_{\text{sanitary}} \leq 0.7 D_{\text{ref., sanitary}}$</td></tr> <tr> <td>$D_{\text{sanitary}} \leq 0.8 D_{\text{ref., sanitary}}$</td><td>$D_{\text{sanitary}} \leq 0.6 D_{\text{ref., sanitary}}$</td></tr> <tr> <td>$D_{\text{sanitary}} \leq 0.7 D_{\text{ref., sanitary}}$</td><td>$D_{\text{sanitary}} \leq 0.5 D_{\text{ref., sanitary}}$</td></tr> </tbody> </table> <p>► These points cannot be accumulated</p> <p>(1) For hotels, this requirement only applies to guests' private spaces.</p> <p>(2) The conventional reference values are as follows:</p> <ul style="list-style-type: none"> ▪ Cistern: 6 litres/flush ▪ Urinal: 3 litres/flush ▪ Washbasin tap: 10 litres/minute ▪ Shower: 12 litres/minute 	Hotels ⁽¹⁾	Other activities	$D_{\text{sanitary}} \leq D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq 0.9 D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq 0.7 D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq 0.8 D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq 0.6 D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq 0.7 D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq 0.5 D_{\text{ref., sanitary}}$	<p>PR</p> <p>2</p> <p>4</p> <p>6</p>
Hotels ⁽¹⁾	Other activities										
$D_{\text{sanitary}} \leq D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq D_{\text{ref., sanitary}}$										
$D_{\text{sanitary}} \leq 0.9 D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq 0.7 D_{\text{ref., sanitary}}$										
$D_{\text{sanitary}} \leq 0.8 D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq 0.6 D_{\text{ref., sanitary}}$										
$D_{\text{sanitary}} \leq 0.7 D_{\text{ref., sanitary}}$	$D_{\text{sanitary}} \leq 0.5 D_{\text{ref., sanitary}}$										
<p>5.1.2. Limit the use of distributed drinking water</p> <p>With regard to water demands that do not require the use of distributed drinking water (cisterns, urinals, cleaning, watering and others), determination of the percentage of coverage of all of these demands by from another source non-drinking water</p> <p>AND performance achieved:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 10% <input type="checkbox"/> 25% <input type="checkbox"/> 50% <p>► These points cannot be accumulated</p> <p>Proof of this performance level by means of a gain and demand in terms of water report for non-drinking water on a daily step basis, modelling the daily behaviour of the water storage system and the demand coverage.</p>	<p>2</p> <p>4</p> <p>6</p>										



Assessment criterion	Points achieved
<p>5.1.3. Determine the overall consumption of total and distributed waterdrinking and non-drinking water</p> <p>Determination (or estimation) of the forecast consumption:</p> <ul style="list-style-type: none"><input type="checkbox"/> Total water consumed by the building in m³/year and m³/FU/year*<input type="checkbox"/> DistributedDrinking water consumed by the building in m³/year and m³/FU/year* <p><i>* The Functional Unit (FU) is m² by default (see definition)</i></p>	<p><i>PR</i></p>

5.2. Plot rainwater management

Assessment criterion	Points achieved
<p>5.2.1. Limit the plot's imperviousness</p> <p>The overall imperviousness coefficient <u>after realization</u> is:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cimp ≤ 80% <input type="checkbox"/> Cimp ≤ 65% <p>► <i>These points cannot be accumulated</i></p>	<p>2</p> <p>4</p>
<p>5.2.2. Manage rainwater in an alternative manner</p> <p>Justified and satisfactory measures are taken relating to the temporary storage of rainwater and the plot's leakage rate.</p> <hr/> <p>Realization of a feasibility study considering on the infiltration on the plot and if the study concludes that infiltration is relevant, implementation of infiltration techniques to infiltrate part of the stored rainwater.</p> <p>The rainwater storage volume on the plot is realised using alternative techniques for:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 40% <input type="checkbox"/> 60% <p>► <i>These points cannot be accumulated</i></p>	<p><i>PR</i></p> <p>2</p> <p>2</p> <p>5</p>
<p>5.2.3. Fight chronic pollution</p> <p>Based on local rainfall, define the occurrence and average duration of a typical rainfall. Technical measures are taken to provide, for rains of a typical duration:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Pre-treatment of rains occurring less than or equal to the typical occurrence, <input type="checkbox"/> Pre-treatment of rains occurring strictly greater more often than the standard occurrence. <p>► <i>These points cannot be accumulated</i></p> <p>AND</p> <p>Transmission to the operator of a half-yearly maintenance booklet.¹</p>	<p>1</p> <p>2</p>
<p>5.2.4. Fight accidental pollution</p> <p>On potentially at-risk impervious areas at risk onto which water may run and induce accidental pollution, a rainwater treatment device with bypass should be implemented and:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Measures taken to inform alert of the saturation of the rainwater treatment device and enable polluted mud to be drained off <input type="checkbox"/> Development of an intervention and pollutant management procedure and transmission of this procedure to the operator. <p>AND</p> <p>Transmission to the operator of a half-yearly maintenance booklet</p>	<p>3</p>

5.3. Wastewater management

Assessment criterion	Points achieved
<p>5.3.1. Control wastewater discharges</p> <p>On-site sanitation</p> <ul style="list-style-type: none"> ❑ Conducting a soil study and non-collective sanitation facility sizing study, for providing wastewater treatment AND Measures taken to ensure site treatment, compliant with the recommendations of the study and of standard EN 12566-3 [A]. Justification of the chosen outlet pipe, according to the study conclusions. <p><i>In the study, investigate various wastewater treatment scenarios, covering feasibility from a technical, economic, environmental and health-related perspective.</i></p> <ul style="list-style-type: none"> ❑ Technical measures are taken to treat wastewater in order to satisfy the wastewater discharge threshold values below: <ul style="list-style-type: none"> ▶ Biological Oxygen Demand, BOD5: 35mg/L ▶ Suspended Matter, SM: 30mg/L <p>OR</p> <p>Adhering to local regulations, if they are more stringent than the above-mentioned values.</p>	<p><i>PR</i></p> <p>4</p>
<p>Collective sanitation</p> <p>Realization of a feasibility study on the installation of an innovative treatment system to treat wastewater on-site.</p> <p>AND</p> <p>If the study has shown an environmental advantage over being connected to the public network, ensure on-site wastewater treatment by means of an innovative alternative sanitation system designed in compliance with the country regulations, satisfying regulatory discharge standards, if any, and minimising potential nuisances (olfactory, visual or auditory) caused to users and local residents.</p>	<p>4</p>
<p>5.3.2. Recycle grey water</p> <p>Measures are taken subsequent to a feasibility study to ensure the treatment and recycling of part of the grey water for the potential uses that allow for such water (restrooms, watering, washing floors, water dedicated to technical uses, etc.), complying with the technical standard in practice, if any. In the feasibility study, consider different grey water recycling scenarios, for different uses, from a technical, economic, environmental and health point of view.</p>	<p>4</p>

Assessment criterion	Points achieved
<p>5.3.3. If the project is in a combined sewer network, limit rainwater discharges into the network</p> <p>Collective sanitation - combined sewer network According to the plot's imperviousness (calculation conducted in 5.2.1) and the rainwater recycling possibilities, determine the annual percentage of rainwater not discharged into the network AND performance achieved:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 20% <input type="checkbox"/> 40% <input type="checkbox"/> 60% <p>► <i>These points cannot be accumulated</i></p> <p>Proof of this performance level by means of a gain and demand report for non-drinking water rainwater on a daily step basis, taking into account any possible water recycling and modelling the daily behaviour of rainwater discharges.</p>	<p>1</p> <p>2</p> <p>4</p>

WASTE



STRUCTURE OF TARGET 6

- 6.1. Optimising the recycling of activity operational waste
- 6.2. Quality of the activity operational waste management system

ASSESSMENT OF TARGET 6

TARGET 6	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i>
PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 40% of the APPLICABLES points
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 50% of the APPLICABLES points

IMPORTANT : In the absence of local waste recycling channels, the target cannot be assessed as *PERFORMING* or *HIGH PERFORMING*.

	Number of points available			Number of points to obtain (if all points are applicable) to achieve level :	
Sub-targets	6.1	6.2	Totals	P	HP
NON-RESIDENTIAL BUILDINGS	7	7	14	6	7

TARGET 6 ASSESSMENT TABLES

6.1. Optimising the recycling of operational waste

Assessment criterion	Points achieved
<p>6.1.1. Recommend or choose waste removal channels with preference given to recycling</p> <p>Recommend or choose⁽¹⁾ the most satisfactory disposal channel from a technical, <u>economic and environmental</u> viewpoint, opting for a recycling channel (in terms of mass or volume):</p> <ul style="list-style-type: none"> <input type="checkbox"/> For at least 50% of waste <input type="checkbox"/> For at least 80% of waste <input type="checkbox"/> For 100% of waste (systematic recycling) <p>► <i>These points cannot be accumulated</i></p>	<p>2</p> <p>3</p> <p>4</p>
<p>6.1.2. Encourage the recycling of organic waste</p> <p>For projects where this is an issue, justified and satisfactory measures are taken to enable the future recycling (when the building is in operation) of organic waste:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Either through the prescription of a connection to an existing recycling channel, to be transmitted to the building's future operator or future user(s) <input type="checkbox"/> Or through the design of an on-site recycling unit, comprising an adequate surface area for the storage of organic waste, while minimising nuisances for occupants and local residents <p>Provide proof of a better environmental result than if other solutions were used, by considering different scenarios.</p>	<p>2</p>
<p>6.1.3. Encourage the reduction of operational waste volume</p> <p>For projects where this is an issue, (including at least one logistics, retail or hotel activity): Justified and satisfactory architectural measures are taken to enable a reduction in the volume of operational waste, in particular through locating and sizing one or more compacting and/or crushing areas.</p>	<p>1</p>

(1) If it is too early to choose disposal channels (to be proven), draft prescriptions in the maintenance notebook (see MEP appendix A.5) and/or the "user" specifications (see MEP appendix A.7)

6.2. Quality of the activity operational waste management system

Assessment criterion	Points achieved
<p>6.2.1. Adequate sizing of waste rooms/areas *</p> <p>Justified and satisfactory measures are taken to guarantee adequate waste storage prior to removal by designing waste rooms and/or areas adapted to the background of the project and sized accordingly (surface area in m²). Justify the sizing according to the estimated quantities and the choice of channels established in 6.1.1.</p> <p>Optimize the design of the waste rooms and/or areas design by over-sizing and/or improving the ergonomics of the area.</p> <hr/> <p>In case of recurring construction sites on the project, justified and satisfactory architectural measures are taken to facilitate the shared sorting of operational waste and waste from recurring construction sites on the project.</p> <p>AND</p> <p>Ensure that this shared sorting does not disrupt operational waste flows.</p>	<p><i>PR</i></p> <p>2</p> <p>1</p>
<p>6.2.2. Guarantee the hygiene of the waste rooms/areas</p> <p>Implementation of means of cleaning rooms, areas and equipment where waste is stored (water inlet and evacuation pump) AND justification of ventilation conditions. (in compliance with regulations where they exist) .</p> <p><u>For outdoor waste areas</u>, measures are taken to guarantee that any possible outdoor areas are protected from wind and rain.</p>	<p><i>PR</i></p>
<p>6.2.3. Optimise operational waste flows</p> <p>Study the position of the waste rooms/areas relating in relation to the removal truck entrances</p> <p>Measures are taken to optimize operational waste flows by</p> <ul style="list-style-type: none"> <input type="checkbox"/> Studying the position of the waste rooms/areas position in relating relation to the waste production points, <input type="checkbox"/> Studying the position of the sorting and pre-collection areas in relation to the waste production and final storage areas, <input type="checkbox"/> Creating intermediate collection spaces if necessary, <input type="checkbox"/> Optimizing the interaction between waste flows and other flows within the building. 	<p>2</p> <p>2</p>

** If the future users are not known, justify the estimate and the assumptions made.*



MAINTENANCE

STRUCTURE OF TARGET 7

7.1. OPTIMISING THE DESIGN OF THE BUILDING FOR THE SIMPLIFIED MAINTENANCE AND SERVICING OF THE CONSTRUCTION FRAME AND SYSTEMS

7.2. DESIGNING THE BUILDING FOR THE MONITORING AND CONTROL OF ENERGY CONSUMPTION

7.3. DESIGNING THE BUILDING FOR THE MONITORING AND CONTROL OF SYSTEM PERFORMANCE AND COMFORT CONDITIONS

ASSESSMENT OF TARGET 7

TARGET 7	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i>
PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥30% of the APPLICABLES points
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥60% of the APPLICABLES points

	Number of points available				Number of points to obtain (if all points are applicable) to achieve level :	
Spaces / Sub-targets	7.1	7.2	7.3	Totals	P	HP
NON-RESIDENTIAL BUILDINGS	21	18	16	55	17	33

TARGET 7 ASSESSMENT TABLES

7.1. Optimising the design of the building for simplified maintenance and servicing of the construction's systems

Assessment criterion	Points achieved
<p>7.1.1. Design the building so as to facilitate maintenance/servicing interventions during the building's operation</p> <p>Production equipment Justified and satisfactory architectural and technical measures are taken to enable access to the heating/cooling, ventilation, transformer, generator and water management systems (including any possible water treatment) and their preservation (particularly from freezing). Justified, satisfactory measures.</p> <p>Maintenance/servicing interventions, including the replacement of all equipment, can be performed without damaging the building frame in relation to the following systems:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Heating/cooling, <input type="checkbox"/> Ventilation, <input type="checkbox"/> High voltage/low voltage sections (transformers and generators), <input type="checkbox"/> Water management, <input type="checkbox"/> Process. 	PR
<p>Terminals Access to all technical systems is possible and the means of access is adequately sized for all equipment terminals in rooms of extended occupancy</p>	2
<p>Ductwork HVAC ductwork is sector-based and designed according to the technical structure of the building. AND Technical and architectural measures are taken to allow access to the distribution boxes.</p>	PR
	2

Assessment criterion	Points achieved
<p>7.1.2. Facilitate the scheduling and traceability of maintenance operations</p> <p>An operating expert is involved in the design of the building AND Measures are taken accordingly for the chosen maintenance process (elements addressed, maintenance levels, existence of required results):</p> <ul style="list-style-type: none"> <input type="checkbox"/> For the HVAC section, <input type="checkbox"/> For the high voltage/low voltage sections, <input type="checkbox"/> For water management. 	<p>3</p> <p>2</p> <p>2</p>
<p>7.1.3. Ensure easy access for maintenance and servicing of the building frame</p> <p>Provide an accessibility study of the different components of the following categories:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Internal finishes (floor, walls and ceiling) and acoustic elements, <input type="checkbox"/> Internal partitions, <input type="checkbox"/> Windows, joinery and glazing, <input type="checkbox"/> Building façades, <input type="checkbox"/> Solar shading devices, <input type="checkbox"/> Rooftops. <p>AND Proof that the architectural aspect chosen takes into account:</p> <ul style="list-style-type: none"> <input type="checkbox"/> The frequency of access, <input type="checkbox"/> Access conditions, <input type="checkbox"/> The inconvenience caused to the users, <input type="checkbox"/> The inconvenience for the smooth operation of the building. <p>AND According to the accessibility study carried out, justified and satisfactory measures are taken in order to enable access to these categories based on the frequencies determined by the project owner.</p>	<p>5</p>
<p>7.1.4. Guarantee the building's performance levels and the user comfort conditions</p> <p>Setting up a commissioning process for the program, design and construction stage, relating to the themes below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Energy consumption, <input type="checkbox"/> Water consumption, <input type="checkbox"/> Acoustic comfort, <input type="checkbox"/> Thermal comfort, <input type="checkbox"/> Visual comfort, <input type="checkbox"/> Indoor air quality. 	<p>5</p>

7.2. Design of the building for the monitoring and control of energy consumption

Assessment criterion	Points achieved
<p>7.2.1. Make metering devices available to monitor energy consumption</p> <p>Metering devices are available for the following uses:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Heating, <input type="checkbox"/> Cooling, <input type="checkbox"/> Lighting, <input type="checkbox"/> Ventilation, <input type="checkbox"/> Service water heating. <p>Metering devices are available for the equipment or systems that go beyond the five categories cited in the PR above for fixed building services , and at least for the following services, where applicable:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Electromechanical equipment, <input type="checkbox"/> Cold production (process), <input type="checkbox"/> Parking lot lighting, <input type="checkbox"/> Outdoor lighting. <p>Metering devices are available for the equipment or systems that go beyond the five categories cited in the PR above for fixed AND non-fixed building services and at least for the following categories, where applicable:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Office equipment, <input type="checkbox"/> Swimming pool/spa, <input type="checkbox"/> Kitchen equipment and catering, <input type="checkbox"/> Laundry, <input type="checkbox"/> Lighting to emphasize objects and goods <input type="checkbox"/> Other energy equipment not dedicated to the comfort of occupants. <hr/> <p>Archiving of energy consumption monitoring</p> <p>An automatic system is made available enabling energy consumption to be monitored with archiving of the values and the option of creating logs, statistics and analyses, at least on the meters identified as being the most significant.</p>	<p><i>PR</i></p> <p>3</p> <p>5</p> <p>2</p>

Assessment criterion	Points achieved
<p>7.2.2. Make metering devices available to monitor water consumption</p> <p>Proof of a metering tree structure enabling total water consumption to be monitored, suitable to the building's background and the apprehension of water leaks.</p> <p>AND</p> <p>According to the defined tree structure, implementation of metering devices enabling the monitoring of water consumption from the distribution network.</p> <p>According to the defined tree structure, implementation of metering devices enabling the monitoring of water consumption from the distribution network for at least the following uses:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sanitary uses, <input type="checkbox"/> Kitchen equipment and catering, <input type="checkbox"/> Swimming pools, <input type="checkbox"/> Laundry, <input type="checkbox"/> Watering, <input type="checkbox"/> Water dedicated to technical uses. <p>Using the metering tree structure required above, for uses that lend themselves to sub-metering, implementation of a sub-metering tree structure enabling the specific monitoring of water consumption by area and/or water management system and/or water type via:</p> <ul style="list-style-type: none"> <input type="checkbox"/> An initial sub-metering level, <input type="checkbox"/> A second sub-metering level. <p>► <i>These points cannot be accumulated</i></p> <p>If non-drinking water is being used, implementation of metering devices enabling the consumption of the following water types to be monitored:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Rainwater, <input type="checkbox"/> AND/OR ground water, <input type="checkbox"/> AND/OR grey water. <hr/> <p>Archiving of water consumption monitoring</p> <p>An automatic system is made available, enabling water consumption to be monitored with archiving of the values and the option of creating logs, statistics and analyses, <u>at least on the meters identified as being the most significant</u>.</p>	<p><i>PR</i></p> <p>1</p> <p>2</p> <p>3</p> <p>3</p> <p>1</p>

7.3. Designing the building for the monitoring and control of system performance and comfort conditions

Assessment criterion	Points achieved
<p>7.3.1. Make means available to monitor comfort conditions</p> <p>Controlling heating and cooling systems Installation of centralised means of inspection and control of temperature set points or temperature ranges:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Area by area. Justifying the area breakdown implemented. <input type="checkbox"/> Room by room. <p>► <i>These points cannot be accumulated</i></p> <hr/> <p>Controlling ventilation systems Installation of centralised means of inspection and control of fresh air flow rates by area based on the room occupancy rate.</p> <hr/> <p>Controlling artificial lighting systems Installation of centralised means of inspection and management of artificial lighting area by area based on occupancy, at least for rooms that are occupied temporarily. Installation of centralised means of inspection and management of artificial lighting area by area based on natural lighting. Measures are taken to manage the timing of outdoor lighting</p>	<p>1</p> <p>4</p> <p>2</p> <p>3</p> <p>2</p> <p>1</p>
<p>7.3.2. Make means available to optimize systems operation and fault detection</p> <p>There are inspection means enabling:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Fault detection and alert generation (operating errors, deviations in consumption) for: <ul style="list-style-type: none"> ► The HVAC section, ► The high voltage/low voltage sections, ► The process systems. <input type="checkbox"/> Leak detection (for water management systems) 	<p>2</p> <p>2</p>

HYGROTHERMAL COMFORT



STRUCTURE OF TARGET 8

- 8.1. *ARCHITECTURAL MEASURES INTENDED TO OPTIMISE HYGROTHERMAL COMFORT*
- 8.2. *CREATING HYGROTHERMAL COMFORT CONDITIONS IN HEATING MODE*
- 8.3. *CREATING HYGROTHERMAL COMFORT CONDITIONS IN ROOMS WHICH DO NOT HAVE ACCESS TO A COOLING SYSTEM*
- 8.4. *CREATING HYGROTHERMAL COMFORT CONDITIONS IN COOLING MODE*

ASSESSMENT OF TARGET 8

TARGET 8	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i>
PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 25% of the APPLICABLES points
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 50% of the APPLICABLES points Including 2 POINTS for requirement 8.3.1, for rooms without a cooling system

Spaces / Sub-targets	Number of points available				Number of points to obtain (if all points are applicable) to achieve level :	
	8.1	8.2	8.3	8.4	P	HP
NON-RESIDENTIAL BUILDINGS OTHER THAN REFRIGERATED WAREHOUSES	10	10	10	10	10	20
REFRIGERATED WAREHOUSES	10	10	0	10	8	15

TARGET 8 ASSESSMENT TABLES

8.1. Architectural measures intended to optimise hygrothermal comfort⁽¹⁾

Assessment criterion	Points achieved
8.1.1. Improve the building's ability to provide satisfying hygrothermal comfort conditions <ul style="list-style-type: none"> Justified, satisfactory architectural measures are taken to optimize hygrothermal comfort. Realisation of a CFD study with justified, satisfactory measures taken to optimally exploit the site's airflow characteristics. 	PR 5
8.1.2. Group together rooms of identical hygrothermal demand Arrangement of spaces based on the building design, their hygrothermal demand and the programming/regulation logic introduced. Justified, satisfactory measures.	1
8.1.3. Control discomfort⁽²⁾ Justified, satisfactory measures are taken to manage heat and cold peaks in spaces sensitive to discomfort (previously identified).	2
Justified, satisfactory measures are taken to control the effects of stratification and/or cold walls for spaces where this is necessary. Justified, satisfactory measures	2

⁽¹⁾ These measures are taken to address heating, cooling and/or hygrometry issues of throughout the year.

⁽²⁾ This requirement applies to periods where, in the same day, the building must address both heating and cooling issues.

8.2. Creating hygrothermal comfort conditions in heating mode

Assessment criterion	Points achieved									
<div>8.2.1. Define/achieve an appropriate temperature level within spaces</div> <div>Definition of:</div> <div><div><div></div><div>Setpoint temperatures suitable for the activities that take place there, for spaces requiring a stable temperature,</div></div><div><div></div><div>Setpoint temperature ranges suitable for the activities that take place there, for other spaces,</div></div></div> <div>AND</div> <div>Achievement of these comfortable temperatures or temperature ranges during occupancy periods.</div> <div>Implementation of means enabling temperatures to be recorded during the building operation.</div>	<div>PR</div> <div>1</div>									
<div>8.2.2. Ensure temperature stability during occupancy periods</div> <div>Identification of spaces sensitive to variations in heat gains (internal and solar)</div> <div>AND</div> <div>Suitable and performing devices are available to regulate terminal emitters to ensure setpoint temperatures based on uses/orientation.</div>	<div>2</div>									
<div>8.2.3. Ensure air velocity that does not adversely affect comfort</div> <div>Maximum air velocity within zones of occupation for spaces with extended occupancy:</div> <table><tr><td>Office spaces, Teaching spaces, Spaces devoted to sales, Spaces associated with retail buildings, Shared spaces in hotel buildings (excluding bathing areas)</td><td>Private guest spaces in hotel buildings</td><td>Common spaces devoted to the movement of customers in retail buildings</td></tr><tr><td>V ≤ 0.20m/s</td><td>V ≤ 0.15m/s</td><td>V ≤ 0.40m/s</td></tr><tr><td>V ≤ 0.15m/s</td><td>V ≤ 0.10m/s</td><td>V ≤ 0.30m/s</td></tr></table> <div>► These points cannot be accumulated</div>	Office spaces, Teaching spaces, Spaces devoted to sales, Spaces associated with retail buildings, Shared spaces in hotel buildings (excluding bathing areas)	Private guest spaces in hotel buildings	Common spaces devoted to the movement of customers in retail buildings	V ≤ 0.20m/s	V ≤ 0.15m/s	V ≤ 0.40m/s	V ≤ 0.15m/s	V ≤ 0.10m/s	V ≤ 0.30m/s	<div>1</div> <div>3</div>
Office spaces, Teaching spaces, Spaces devoted to sales, Spaces associated with retail buildings, Shared spaces in hotel buildings (excluding bathing areas)	Private guest spaces in hotel buildings	Common spaces devoted to the movement of customers in retail buildings								
V ≤ 0.20m/s	V ≤ 0.15m/s	V ≤ 0.40m/s								
V ≤ 0.15m/s	V ≤ 0.10m/s	V ≤ 0.30m/s								

Assessment criterion	Points achieved
<p>8.2.4. Control of thermal environment by users</p> <p>Identification of spaces where it is relevant for the users to be able to control room temperatures individually AND Functional devices are made available enabling users to change the heating level in these spaces, within a given temperature range (so as to avoid deviations from the setpoint).</p>	2
<p>8.2.5. Control hygrometry</p> <p>Indoor bathing spaces Definition/achievement of a humidity ratio during cold periods suitable to bathing conditions (water temperature, water movements, etc.) consistent with the target setpoint temperature. AND Measures are taken to provide humidity control in indoor bathing spaces.</p> <hr/> <p>Other spaces Definition/achievement of a humidity ratio appropriate to the occupancy conditions. AND Measures are taken to provide humidity control.</p>	<p><i>PR</i></p> <p>2</p>

8.3. Creating hygrothermal comfort conditions in rooms which do not have access to a cooling system (1)

REMINDER: IF THERE ARE ONLY COOLED SPACES THAT ENSURE A TEMPERATURE SETPOINT, THIS SUB-TARGET DOES NOT APPLY.

Assessment criterion	Points achieved
<p>8.3.1. Ensure a minimum level of thermal comfort</p> <p>Identification and definition of the "zone of occupation" and the "comfort range⁽²⁾" attainable in the zone of occupation (based on the air velocity attainable in the occupancy area). For spaces with extended occupancy:</p> <ul style="list-style-type: none"> □ No deviation from the comfort range⁽¹⁾ for more than: <ul style="list-style-type: none"> ▶ 3% of the time in the year ▶ 2% of the time in the year ▶ 1% of the time in the year ▶ <i>These points cannot be accumulated</i> 	<p>PR</p> <p>2</p> <p>4</p> <p>6</p>
<p>8.3.2. Ensure sufficient ventilation and control the air flow if hygrothermal comfort is achieved by opening windows or doors</p> <p>Identification of the extended occupancy spaces where hygrothermal comfort is achieved by opening windows AND Justified window opening ratio for these spaces enabling natural ventilation to be provided</p> <hr/> <p>Justification that the equipment planned/installed makes it possible to keep the windows open in a given position via a control, in order to naturally ventilate these spaces and modulate the incoming air flow.</p>	<p>2</p> <p>2</p>

⁽¹⁾ The purpose of this sub-target is to limit hygrothermal discomfort related to any overheating that may occur in rooms without a cooling system.

⁽²⁾ According to the comfort ranges of the psychrometric diagram given in the practical guide.

8.4. Creating hygrothermal comfort conditions in cooling mode

REMINDER: IF THERE ARE NO COOLED SPACES, THIS SUB-TARGET DOES NOT APPLY.

Assessment criterion	Points achieved												
<p>8.4.1. Define/achieve an appropriate temperature level in the spaces</p> <p>Definition of:</p> <ul style="list-style-type: none">❑ Temperature setpoints suitable for the activities that take place there, in spaces that require a stable temperature,❑ temperature range setpoints suitable for the activities that take place there, in other spaces, <p>AND</p> <p>Achievement of these comfort temperatures or temperature ranges.</p>	<p>PR</p>												
<p>8.4.2. Ensure air speed that does not adversely affect comfort</p> <p>Maximum air velocity in the zone of occupation of extended occupancy spaces , when the cooling system is on, for a setpoint close to 26°C⁽¹⁾:</p> <table><tr><td>Office spaces, Spaces associated with retail buildings, Other spaces in hotel buildings (excluding bathing areas)</td><td>Private guest spaces in hotel buildings</td><td>Common spaces devoted to the movement of customers in retail buildings</td><td>Spaces devoted to sales in retail buildings</td></tr><tr><td>V ≤ 0.25m/s</td><td>V ≤ 0.2m/s</td><td>V ≤ 0.8m/s</td><td>V ≤ 0.5m/s</td></tr><tr><td>V ≤ 0.22m/s</td><td>V ≤ 0.15m/s</td><td>V ≤ 0.5m/s</td><td>V ≤ 0.4m/s</td></tr></table> <p>► These points cannot be accumulated</p>	Office spaces, Spaces associated with retail buildings, Other spaces in hotel buildings (excluding bathing areas)	Private guest spaces in hotel buildings	Common spaces devoted to the movement of customers in retail buildings	Spaces devoted to sales in retail buildings	V ≤ 0.25m/s	V ≤ 0.2m/s	V ≤ 0.8m/s	V ≤ 0.5m/s	V ≤ 0.22m/s	V ≤ 0.15m/s	V ≤ 0.5m/s	V ≤ 0.4m/s	<p>1</p> <p>3</p>
Office spaces, Spaces associated with retail buildings, Other spaces in hotel buildings (excluding bathing areas)	Private guest spaces in hotel buildings	Common spaces devoted to the movement of customers in retail buildings	Spaces devoted to sales in retail buildings										
V ≤ 0.25m/s	V ≤ 0.2m/s	V ≤ 0.8m/s	V ≤ 0.5m/s										
V ≤ 0.22m/s	V ≤ 0.15m/s	V ≤ 0.5m/s	V ≤ 0.4m/s										
<p>8.4.3. Control solar gains and in particular localised discomfort due to heat radiation</p> <p>Identification of the different types of spaces affected by localised discomfort due to solar gains (mainly near glass walls and in upper parts)</p> <p>AND</p> <p>Technical and architectural measures are taken to limit localised solar discomfort</p>	<p>2</p>												

⁽¹⁾ *This temperature setpoint is given by default; it must be justified.*

Assessment criterion	Points achieved
8.4.4. Control of thermal environment by users Identification of spaces where it is relevant for the users to be able to control room temperatures individually AND Functional devices are present enabling the users to change the cooling level in these spaces, within a given temperature range (so as to avoid deviations from the setpoint).	2
8.4.5. Control hygrometry in sensitive spaces Identification of spaces sensitive to humidity AND Definition/achievement of a humidity ratio (appropriate to the occupancy conditions) in these spaces. AND Measures are taken to provide humidity control.	3



ACOUSTIC COMFORT

STRUCTURE OF TARGET 9

9.1 CREATING AN ACOUSTIC ENVIRONMENT QUALITY APPROPRIATE FOR THE VARIOUS ROOMS

ASSESSMENT OF TARGET 9

TARGET 9	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i>
PERFORMING	<i>PREREQUISITES</i> AND ≥ 50% of the APPLICABLES points <u>per space category</u>
HIGH PERFORMING	<i>PREREQUISITES</i> AND ≥ 75% of the APPLICABLES points <u>per space category</u>

	Number of points available		Number of points to obtain (if all points are applicable) to achieve level :	
Spaces	9.1	Totals	P	HP
OFFICE SPACES WITH FIXED PARTITIONING	4	4	2	4
MODULAR OFFICE SPACES	4	4	2	4
TEACHING ROOMS AND PRACTICAL WORK ROOMS (EDUCATION)	4	4	2	4
COMMON SPACES DEVOTED TO MOVEMENT OF CUSTOMERS (RETAIL – EXHIBITION HALLS)	4	4	2	3
SPACES DEVOTED TO SALES (RETAIL)	4	4	2	3
PRIVATE GUEST SPACES IN HOTEL BUILDINGS	4	4	2	4
SPACES IN THE "WAREHOUSE" AREA	4	4	0	3
(LOGISTICS PLATFORM / SHIPPING DOCK/REFRIGERATING WAREHOUSE)	4	4	2	3
ASSOCIATED SPACES (ALL BUILDING TYPES)	4	4	2	3

TARGET 9 ASSESSMENT TABLES

9.1. Creating an acoustic environment quality appropriate for the various rooms

OFFICE SPACES WITH FIXED PARTITIONINGS

Assessment criterion	Points achieved
<p>9.1.1. Optimise the acoustic quality of spaces</p> <p>Adherence to programme or contractual requirements by the applicant for every acoustic indicator :</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised acoustic insulation from outdoor space <input type="checkbox"/> Equipment noise level <input type="checkbox"/> Impact noise level <input type="checkbox"/> Indoor acoustics (based on specific indoor acoustic indicators) <input type="checkbox"/> Airborne noise insulation (receiving) from adjacent spaces <input type="checkbox"/> Walking noise <p>Adherence to the quantitative values below for every acoustic indicator:</p> <p>Standardized sound level difference between spaces and outdoor noise: $DnTA_{tr} \geq 30$ dB</p> <p>Weighted standardised impact sound pressure level $L'_{nT,w}$ transmitted into spaces: $L'_{nT,w} \leq 60$ dB</p> <p>Standardised sound pressure level L_{nAT} caused by equipment:</p> <ul style="list-style-type: none"> <input type="checkbox"/> $L_{nAT} \leq 40$ dB(A) in individual and shared offices <input type="checkbox"/> $L_{nAT} \leq 45$ dB(A) in open office spaces <p>Equivalent absorption area (EAA) of coverings (with proof of uniformity in each area):</p> <ul style="list-style-type: none"> <input type="checkbox"/> $EAA_{total} \leq 0.6$ S(floor surface) in individual and shared offices <input type="checkbox"/> $EAA_{floor+ceiling} \geq 0.6$ S(floor surface) for open office spaces, OR <ul style="list-style-type: none"> ▶ Reverberation time $0.6 < Tr < 0.8$ s for a volume $< 250m^3$ ▶ Reverberation time $Tr \leq 1$ s for a volume $> 250m^3$ <p>Weighted standardised sound level difference $DnTA$ between office spaces (receiving) and any type of "office" activity space (emitting):</p> <ul style="list-style-type: none"> <input type="checkbox"/> $DnTA \geq 38$ dB between individual offices (receiving) and any type of "office" activity space (emitting) <input type="checkbox"/> $DnTA \geq 35$ dB between shared offices (receiving) and other shared offices and open spaces (emitting) <input type="checkbox"/> $DnTA \geq 32$ dB between open spaces (receiving) and other open spaces and shared offices (emitting) 	<p><i>PR</i></p> <p>2</p>



Assessment criterion	Points achieved
<p>Same as level above</p> <p>AND</p> <p>Performing an acoustic study on office space with fixed partitioning, under the 6 acoustic environment criteria below:</p> <ul style="list-style-type: none"><input type="checkbox"/> Weighted standardised acoustic insulation from outdoor space<input type="checkbox"/> Equipment noise level<input type="checkbox"/> Impact noise level<input type="checkbox"/> Indoor acoustics (based on specific indoor acoustic indicators)<input type="checkbox"/> Airborne noise insulation (receiving) from adjacent spaces<input type="checkbox"/> Walking noise <p>AND implementation of solutions identified as the most suitable by this study *</p>	4

** If the study concludes that one or more 2-point level thresholds above have no usefulness in the project background, and recommends a lower threshold or thresholds, the 4 points are achieved if the study recommendations are adhered to.*

MODULAR OFFICE SPACES*

Assessment criterion	Points achieved
<p>9.1.1. Optimise the acoustic quality of spaces</p> <p>Adherence to programme or contractual requirements by the applicant for every acoustic indicator:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised acoustic insulation from outdoor space <input type="checkbox"/> Equipment noise level <input type="checkbox"/> Impact noise level <input type="checkbox"/> Indoor acoustics (based on specific indoor acoustic indicators) <input type="checkbox"/> Airborne noise insulation (receiving) from adjacent spaces <input type="checkbox"/> Walking noise <p>Adherence to the quantitative values below for every acoustic indicator:</p> <p>Sound level difference between spaces and outdoor noise: $D_{nTA,tr} \geq 30 \text{ dB}$</p> <p>Weighted standardised impact sound pressure level $L'_{nT,w}$ transmitted into spaces: $L'_{nT,w} \leq 60 \text{ dB}$</p> <p>Standardised sound pressure level L_{nAT} caused by equipment: $L_{nAT} \leq 43 \text{ dB(A)}$</p> <p>Equivalent absorption area (EAA) of coverings (with proof of uniformity in each area):</p> <ul style="list-style-type: none"> <input type="checkbox"/> $EAA_{\text{floor+ceiling}} \geq 0.6 S(\text{floor surface})$ for open office spaces, <p>OR</p> <ul style="list-style-type: none"> ▶ Reverberation time $T_r \leq 0.9 \text{ s}$ for a volume $< 250 \text{ m}^3$ ▶ Reverberation time $T_r \leq 1 \text{ s}$ for a volume $> 250 \text{ m}^3$ <p>Weighted standardised sound level difference D_{nTA} between modular office spaces achievable once the platforms are partitioned** (between technical floors and extended ceilings): $D_{nTA} \geq 32 \text{ dB}$</p>	<p><i>PR</i></p> <p>2</p>

Assessment criterion	Points achieved
<p>Same as level above</p> <p>AND</p> <p>Performing an acoustic study on modular office space, under the 6 acoustic environment criteria below:</p> <ul style="list-style-type: none"> ▶ Weighted standardised acoustic insulation from outdoor space ▶ Equipment noise level ▶ Impact noise level ▶ Indoor acoustics (based on specific indoor acoustic indicators) ▶ Airborne noise insulation (receiving) from adjacent spaces ▶ Walking noise <p>AND implementation of solutions identified as the most suitable by this study***</p>	4

* See practical guide for the definition of "modular office spaces"

** If the design stops at the platforms to be furnished stage, state in the "future user" specification the furnishing assumptions that condition the achievement of the performances.

*** If the study concludes that one or more 2-point level thresholds above have no usefulness in the project background, and recommends a lower threshold or thresholds, the 4 points are achieved if the study recommendations are adhered to.

TEACHING ROOMS AND PRACTICAL WORK ROOMS (EDUCATION)

Assessment criterion	Points achieved
<p>9.1.1. Optimise the acoustic quality of spaces</p> <p>Adherence to programme or contractual requirements by the applicant for every acoustic indicator :</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised acoustic insulation from outdoor space <input type="checkbox"/> Equipment noise level <input type="checkbox"/> Impact noise level <input type="checkbox"/> Indoor acoustics (based on specific indoor acoustic indicators) <input type="checkbox"/> Airborne noise insulation (receiving) from adjacent spaces <input type="checkbox"/> Walking noise <p>Adherence to the quantitative values below for every acoustic indicator:</p> <p>Sound level difference between teaching/ and practical work rooms and outdoor noise: $DnTA_{tr} \geq 30 \text{ dB}$</p> <p>Weighted standardised impact sound pressure level transmitted into teaching and practical work rooms: $L'_{nT,w} \leq 60 \text{ dB}$</p> <p>Standardised sound pressure level L_{nAT} caused by equipment in the teaching and practical work rooms:</p> <ul style="list-style-type: none"> <input type="checkbox"/> $L_{nAT} \leq 38 \text{ dB(A)}$ when the equipment is on continuously <input type="checkbox"/> $L_{nAT} \leq 43 \text{ dB(A)}$ when the equipment is on intermittently <p>Reverberation time (Tr) in teaching and practical work rooms:</p> <ul style="list-style-type: none"> <input type="checkbox"/> $0.4 \leq Tr \leq 0.8 \text{ s}$ when $V \leq 250 \text{ m}^3$ <input type="checkbox"/> $0.6 \leq Tr \leq 1.2 \text{ s}$ when $V > 250 \text{ m}^3$ <p>Weighted standardised sound level difference $DnTA$ of teaching and practical work rooms: $DnTA$ compliant with the table in the practical guide</p> <hr/> <p>Same as level above</p> <p>AND</p> <p>Performing an acoustic study on training and practical work rooms, under the 6 acoustic environment criteria below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised acoustic insulation from outdoor space <input type="checkbox"/> Equipment noise level <input type="checkbox"/> Impact noise level <input type="checkbox"/> Indoor acoustics (based on specific indoor acoustic indicators) <input type="checkbox"/> Airborne noise insulation (receiving) from adjacent spaces <input type="checkbox"/> Walking noise <p>AND implementation of solutions identified as the most suitable by this study*.</p> <p><i>* If the study concludes that one or more 2-point level thresholds above have no usefulness in the project background, and recommends a lower threshold or thresholds, the 4 points are achieved if the study recommendations are adhered to.</i></p>	<p>PR</p> <p>2</p> <p>4</p>

COMMON SPACES DEVOTED TO THE MOVEMENT OF CUSTOMERS (RETAIL – EXHIBITION HALL)

Assessment criterion	Points achieved
<p>9.1.1. Optimise the acoustic quality of spaces</p> <p>Adherence to programme or contractual requirements by the applicant for every acoustic indicator:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised acoustic insulation from outdoor space <input type="checkbox"/> Equipment noise level <input type="checkbox"/> Impact noise level <input type="checkbox"/> Indoor acoustics (based on specific indoor acoustic indicators) <input type="checkbox"/> Airborne noise insulation (receiving) from adjacent spaces <input type="checkbox"/> Walking noise <p>Adherence to the quantitative values below for every acoustic indicator: Sound level difference between spaces and outdoor noise: $DnTA_{tr} \geq 30$ dB Standardised sound pressure level $LnAT$ caused by equipment: $LnAT \leq 43$ dB(A) Realisation of an acoustic study for the internal acoustics of common spaces devoted to the movement of customers and compliance with average reverberation time requirements drawn from that study. Weighted standardised sound level difference $DnTA$ between the common spaces (receiving) and a delivery space or waste area (emitting): $DnTA \geq 40$ dB or lower value set by a special acoustic study.</p> <hr/> <p>Same as level above AND realisation of an acoustic study on common spaces devoted to the movement of customers regarding the five acoustic environment criteria below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised sound level difference from outdoor spaces <input type="checkbox"/> Noise level of equipment <input type="checkbox"/> Impact noise level <input type="checkbox"/> Impact sound level <input type="checkbox"/> Internal acoustics (based on specific internal acoustic indicators that guarantee that messages broadcast by a public address system are intelligible) <input type="checkbox"/> Insulation from airborne noise (receiving) from spaces other than delivery spaces and waste areas <p>AND implementation of the solutions identified by this study* as the most suitable:</p> <ul style="list-style-type: none"> ▪ For three criteria (at least). ▪ For all five criteria. <p style="color: red;">▶ <i>These points cannot be accumulated</i></p> <p><i>* If the study concludes that one or more 2-point level thresholds above have no usefulness in the project background, and recommends a lower threshold or thresholds, the 4 points are achieved if the study recommendations are adhered to.</i></p>	<p>PR</p> <p>2</p> <p>3</p> <p>4</p>

SPACES DEVOTED TO SALES (RETAIL)

Assessment criterion	Points achieved
<p>9.1.1. Optimise the acoustic quality of spaces</p> <p>Adherence to programme or contractual requirements by the applicant for every acoustic indicator:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised acoustic insulation from outdoor space <input type="checkbox"/> Equipment noise level <input type="checkbox"/> Impact noise level <input type="checkbox"/> Indoor acoustics (based on specific indoor acoustic indicators) <input type="checkbox"/> Airborne noise insulation (receiving) from adjacent spaces <input type="checkbox"/> Walking noise <p>Adherence to the quantitative values below for every acoustic indicator: Sound level difference of spaces from outdoor noise: $DnTA_{tr} \geq 30$ dB Standardised sound pressure level $LnAT$ caused by equipment: $LnAT \leq 43$ dB(A) Weighted standardised sound level difference $DnTA$ between the common spaces (receiving) and a delivery space or waste area (emitting): $DnTA \geq 45$ dB or lower value set by a special acoustic study.</p> <hr/> <p>Same as level above</p> <p>AND Realisation of an acoustic study on spaces devoted to sales regarding the five acoustic ambience criteria below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised sound level difference from outdoor spaces <input type="checkbox"/> Noise level of equipment <input type="checkbox"/> Impact noise level <input type="checkbox"/> Impact sound level <input type="checkbox"/> Internal acoustics (based on specific internal acoustic indicators that guarantee that messages broadcast by a public address system are intelligible) <input type="checkbox"/> Insulation from airborne noise (receiving) from spaces other than delivery spaces and waste areas <p>AND implementation of the solutions identified by this study⁽¹⁾ as the most suitable:</p> <ul style="list-style-type: none"> ▪ For three criteria (at least). ▪ For all five criteria. <p>► <i>These points cannot be accumulated</i></p> <p><i>(1) If the study concludes that one or more 2-point level thresholds above have no usefulness in the project background, and recommends a lower threshold or thresholds, the 4 points are achieved if the study recommendations are adhered to.</i></p>	<p><i>PR</i></p> <p>2</p> <p>3</p> <p>4</p>

PRIVATE GUEST SPACES (HOTELS)

Assessment criterion	Points achieved
<p>9.1.1. Optimise the acoustic quality of spaces</p> <p>Adherence to programme or contractual requirements by the applicant for every acoustic indicator:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised acoustic insulation from outdoor space <input type="checkbox"/> Equipment noise level <input type="checkbox"/> Impact noise level <input type="checkbox"/> Indoor acoustics (based on specific indoor acoustic indicators) <input type="checkbox"/> Airborne noise insulation (receiving) from adjacent spaces <input type="checkbox"/> Walking noise <p>Adherence to the quantitative values below for every acoustic indicator:</p> <p>Sound level difference of private spaces from outdoor noise: $DnTA_{tr} \geq 30$ dB</p> <p>Weighted standardised impact sound pressure level transmitted into rooms devoted to sleeping: $L'nT_w \leq 60$ dB</p> <p>Standardised sound pressure level L_{nAT} caused by equipment in rooms devoted to sleeping:</p> <ul style="list-style-type: none"> <input type="checkbox"/> $L_{nAT} \leq 35$ dB(A) when the equipment is located in the room <input type="checkbox"/> $L_{nAT} \leq 30$ dB(A) otherwise <p>Equivalent absorption area (EAA) of coverings in corridors leading to the rooms in buildings or parts of buildings used as hotels: $EAA_{total} \leq 0.25$ S(floor surface)</p> <p>Weighted standardised sound level difference $DnTA$ of private spaces:</p> <p>$DnTA$ compliant with the table in the practical guide</p> <hr/> <p>Same as level above</p> <p>AND realisation of an acoustic study on private guest spaces regarding the six acoustic environment criteria below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised sound level difference from outdoor spaces <input type="checkbox"/> Noise level of equipment <input type="checkbox"/> Impact noise level <input type="checkbox"/> Internal acoustics (based on specific indoor acoustic indicators) <input type="checkbox"/> Insulation from airborne noise (receiving) from adjacent spaces <input type="checkbox"/> Walking noise <p>AND implementation of solutions identified as the most suitable by this study</p> <p>► <i>These points cannot be accumulated</i></p> <p><i>* If the study concludes that one or more 2-point level thresholds above have no usefulness in the project background, and recommends a lower threshold or thresholds, the 4 points are achieved if the study recommendations are adhered to.</i></p>	<p><i>PR</i></p> <p>2</p> <p>4</p>

SPACES IN THE "WAREHOUSE" AREA (LOGISTICS PLATFORM/SHIPPING DOCK /REFRIGERATED WAREHOUSE)

Assessment criterion	Points achieved
<p>9.1.1. Optimise the acoustic quality of spaces</p> <p>Standardised sound pressure level LnAT caused by equipment in spaces in the "warehouse" area: LnAT ≤ 62 dB(A)</p> <hr/> <p>Operations office Particular care taken with the acoustics of the operations office located near the warehouse. The indoor airborne sound insulation between the operations office and the warehouse must be DnTA > 35 dB</p> <p>Warehouse Spaces Realisation of a special acoustic study and compliance with the study's requirements with respect to insulating against airborne noise from adjacent spaces.</p> <p><i>* Exception: Table does not apply if the target is assessed at PERFORMING level</i></p>	<p>1</p> <p>2</p> <p>1</p>

ASSOCIATED SPACES (ALL BUILDING TYPES)

Assessment criterion	Points achieved
<p>9.1.1. Optimise the acoustic quality of spaces</p> <p>Regarding the three criteria below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised sound level difference of spaces from outdoor spaces <input type="checkbox"/> Internal acoustics of spaces <input type="checkbox"/> Walking noise <p>Realisation of a special acoustic study and implementation of the solutions identified by this study as the most suitable:</p> <ul style="list-style-type: none"> ▶ In each highly sensitive associated space, ▶ In each highly sensitive and sensitive associated space. ▶ <i>These points cannot be accumulated</i> <hr/> <p>Regarding the three criteria below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Impact sound noise levels transmitted into spaces <input type="checkbox"/> Noise level of equipment in spaces <input type="checkbox"/> Insulation of spaces from airborne noise <p>Realisation of a special acoustic study and implementation of the solutions identified by this study as the most suitable:</p> <ul style="list-style-type: none"> ▶ In each connected space with priority interaction, ▶ In each connected space with priority and intermediate interaction. ▶ <i>These points cannot be accumulated</i> 	<p>1</p> <p>2</p> <p>1</p> <p>2</p>

OTHER SPACES CHARACTERISTIC OF THE ACTIVITY (RELATING TO AN ACTIVITY NOT COVERED BY ONE OF THE TABLES ABOVE)

Assessment criterion	Points achieved
<p>9.1.1. Optimise acoustic ambience criteria in spaces</p> <p>Compliance with the Project Owner's programme or contractual prescription on spaces characteristic of the activity for each acoustic indicator:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Weighted standardised acoustic insulation from outdoor spaces, <input type="checkbox"/> Noise level of equipment, <input type="checkbox"/> Impact sound noise level, <input type="checkbox"/> Internal acoustics (based on specific indoor acoustic indicators), <input type="checkbox"/> Insulation from airborne noise (receiving) from adjacent spaces, <input type="checkbox"/> Walking noise. <p>OR</p> <p>Realisation of an acoustic study on spaces characteristic of the activity regarding the six acoustic environment criteria below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Definition of three performance levels for each of the six criteria: COMMON PRACTICE level, PERFORMING level and HIGH PERFORMING level <input type="checkbox"/> Compliance with the defined COMMON PRACTICE level <hr/> <p>Compliance with the defined PERFORMING level for all six criteria.</p> <p>Compliance with the defined HIGH PERFORMING level for:</p> <ul style="list-style-type: none"> ■ At least four of the six criteria, ■ All six criteria. <p>► <i>These points cannot be accumulated</i></p>	<p><i>PR</i></p> <p>2</p> <p>3</p> <p>4</p>



VISUAL COMFORT

STRUCTURE OF TARGET 10

10.1 OPTIMISING NATURAL LIGHTING

10.2 COMFORTABLE ARTIFICIAL LIGHTING

ASSESSMENT OF TARGET 10

TARGET 10	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i>
PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 50% of points APPLICABLE per space category on sub-target 10.1 + ≥ 50% of points APPLICABLE on sub target 10.2
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 75% of points APPLICABLE per space category on sub-target 10.1 + ≥ 75% of points APPLICABLE on sub target 10.2

	Number of points available			Number of points to obtain (if all points are applicable) to achieve the Performing level:		Number of points to obtain (if all points are applicable) to achieve the High Performing level:	
Spaces / Sub - targets	10.1	10.2	Totals	10.1	10.2	10.1	10.2
OFFICE SPACES	10	13	23	5	7	8	10
TEACHING ROOMS AND PRACTICAL WORK ROOMS (EDUCATION)	10	13	23	5	7	8	10
LARGE COMMON SPACES DEVOTED TO MOVEMENT	10	13	23	5	7	8	10
SPACES DEVOTED TO SALES (RETAIL)	7	13	20	4	7	6	10
EXHIBITION HALL	10	13	23	5	7	8	10
SPACES IN HOTEL BUILDINGS	20	13	33	10	7	15	10
SPACES IN THE "WAREHOUSE" AREA (LOGISTICS PLATFORM / SHIPPING DOCK)	10	13	23	5	7	8	10
"CONTROLLED-TEMPERATURE WAREHOUSE" (REFRIGERATED WAREHOUSE) SPACE	5	13	18	3	7	4	10
ASSOCIATED SPACES (ALL BUILDING TYPES)	11	13	24	6	7	9	10
OTHER CHARACTERISTIC SPACES OF ACTIVITY (Relating to an activity not covered by a previous table)	5	13	18	3	7	4	10



TARGET 10 ASSESSMENT TABLES

10.1.Optimising natural lighting

OFFICE SPACES

Assessment criterion	Points achieved
10.1.1. Have access to daylight in sensitive spaces Percentage of spaces (weighted by surface area) with access to daylight (spaces with direct or indirect access to light): Access to daylight in 100% of spaces	<i>PR</i>
10.1.2. Have access to outdoor views in sensitive spaces Access to views (horizontal to line of sight) in 100% of spaces	<i>PR</i>

Assessment criterion	Points achieved
<p>10.1.3. Have a minimum level of natural lighting</p> <p>Minimum daylight factor (DF) to be achieved: Office rooms directly exposed to façades looking outdoors</p> <ul style="list-style-type: none"> □ DF ≥ 1.2% for 80% of the first-level area's surface, in 80% of the rooms in question (by surface area) and send information to the future user(s) about the workstation installation area that is most favourable for natural light. 1 □ DF ≥ 2% for 80% of the first-level area's surface, in 80% of the rooms in question (by surface area) DF ≥ 1.5% for 80% of the first-level area's surface, in 20% of the remaining rooms in question (by surface area) 2 □ DF ≥ 2.5% for 80% of the first-level area's surface, in 80% of the rooms in question (by surface area) DF ≥ 1.5% for 80% of the first-level area's surface, in 20% of the remaining rooms in question (by surface area) AND DF ≥ 0.7% for 90% of the second-level area's surface in all rooms in question 5 <p>► <i>These points cannot be accumulated</i></p> <hr/> <p>Second-daylighted rooms (rooms above that are not directly exposed to façades looking outdoors) DF ≥ 0.7% over 70% of the surface area of 70% of second-day lighted rooms (by surface area) 2</p> <p><i>The thresholds may be decreased by 0.5% under certain special conditions (see practical guide) (except for levels at 0.7%)</i> <i>The percentages apply to the surface areas on a weighted basis (see calculation method in the practical guide)</i> <i>The sensitive spaces in question are mentioned in the practical guide</i></p>	
<p>10.1.4. Quality of natural light treatment</p> <p>Identify glare-sensitive spaces and study the glare conditions in these spaces. AND Proven and satisfactory measures to protect these spaces from direct or indirect sunlight in order to limit glare. 1</p> <p>Identify glare-sensitive spaces requiring the incoming natural light to be controlled and study the glare and control conditions of natural light in these spaces. AND Proven and satisfactory measures to guide, filter and/or diffuse daylight in these spaces in order to control the incoming natural light and limit direct or indirect glare in these spaces. 3</p> <p>► <i>These points cannot be accumulated</i></p>	

TEACHING ROOMS AND PRACTICAL WORK ROOMS (EDUCATION)

Assessment criterion	Points achieved
<p>10.1.1. Have access to daylight in sensitive spaces</p> <p>Percentage of spaces (weighted by surface area) with access to daylight (spaces with direct or indirect access to light):</p> <p>Access to daylight in 100% of spaces</p>	PR
<p>10.1.2. Have access to outdoor views in sensitive spaces</p> <p>Access to views (horizontal to line of sight) in 100% of spaces</p>	PR
<p>10.1.3. Have a minimum level of natural lighting</p> <p>Minimum daylight factor (DF) to be achieved:</p> <p>Classrooms directly exposed to façades looking outdoors</p> <ul style="list-style-type: none"> □ DF ≥ 1.2% for 80% of the first-level area's surface, in 80% of the rooms in question (by surface area) and send information to the lessee about the workstation installation area that is most favourable for natural light. 1 □ DF ≥ 2% for 80% of the first-level area's surface, in 80% of the rooms in question (by surface area) DF ≥ 1.5% for 80% of the first-level area's surface, in 20% of the remaining rooms in question (by surface area) 2 □ DF ≥ 2.5% for 80% of the first-level area's surface, in 80% of the rooms in question (by surface area) DF ≥ 1.5% for 80% of the first-level area's surface, in 20% of the remaining rooms in question (by surface area) AND DF ≥ 0.7% for 90% of the second-level area's surface in all rooms in question 5 <p>► <i>These points cannot be accumulated</i></p> <hr style="border-top: 1px dashed #0000FF;"/> <p>Second-day lighted rooms (rooms above that are not directly exposed to façades looking outdoors)</p> <p>DF ≥ 0.7% over 70% of the surface area of 70% of second-level rooms (by surface area) 2</p> <p><i>The thresholds may be decreased by 0.5% under certain special conditions (see practical guide)</i></p>	

The thresholds may be decreased by 0.5% under certain special conditions (see practical guide) (except for levels at 0.7%)

The percentages apply to the surface areas on a weighted basis (see calculation method in the practical guide)

The sensitive spaces in question are mentioned in the practical guide

Assessment criterion	Points achieved
<p>10.1.4. Quality of natural light treatment</p> <p>Identify glare-sensitive spaces and study the glare conditions in these spaces. AND Proven and satisfactory measures to protect these spaces from direct or indirect sunlight in order to limit glare.</p> <p>Identify glare-sensitive spaces requiring the incoming natural light to be controlled and study the glare and control conditions of natural light in these spaces. AND Proven and satisfactory measures to guide, filter and/or diffuse daylight in these spaces in order to control the incoming natural light and limit direct or indirect glare in these spaces.</p> <p>► <i>These points cannot be accumulated</i></p>	<p>1</p> <p>3</p>

LARGE COMMON SPACES DEVOTED TO MOVEMENT

Assessment criterion	Points achieved
<p>10.1.1. Have access to daylight</p> <p>Identify the focal points of the building's large common spaces (see practical guide for definition) AND Take measures to guarantee direct access to daylight at each identified focal point.</p>	PR
<p>10.1.2. Have access to outdoor views</p> <p>If the project includes at least two focal points Access to views from:</p> <ul style="list-style-type: none"> <input type="checkbox"/> at least 30% of focal points in large common spaces <input type="checkbox"/> at least 50% of focal points in large common spaces <input type="checkbox"/> at least 75% of focal points in large common spaces <input type="checkbox"/> 100% of focal points in common spaces <p>► <i>These points cannot be accumulated</i></p> <p>If the project has only one focal point Access to views from the focal point.</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>PR</p>
<p>10.1.3. Have a minimum level of natural lighting in occupancy areas</p> <p>Daylight factor (DF) to maintain in large common spaces devoted to movement:</p> <ul style="list-style-type: none"> <input type="checkbox"/> $DF_{avg} \geq 0.5\%$ for all spaces <input type="checkbox"/> $DF_{avg} \geq 1\%$ OR $DF_{minimum} \geq 0.5\%$ for all spaces <input type="checkbox"/> $DF_{avg} \geq 1\%$ AND $DF_{minimum} \geq 0.5\%$ for all spaces <p>► <i>These points cannot be accumulated</i></p>	<p>1</p> <p>2</p> <p>3</p>
<p>10.1.4. Quality of natural light treatment</p> <p>Identify glare-sensitive areas in large common spaces and study the glare conditions in these areas. AND Proven and satisfactory measures to protect these spaces from direct or indirect sunlight in order to limit glare.</p> <p>Identify glare-sensitive areas in large common spaces requiring the incoming natural light to be controlled and study the glare and natural lighting control conditions in these areas. AND Proven and satisfactory measures to guide, filter and/or diffuse daylight in these areas in order to control the incoming natural light and limit direct or indirect glare in these areas.</p> <p>► <i>These points cannot be accumulated</i></p>	<p>1</p> <p>3</p>

SPACES DEVOTED TO SALES (RETAIL)

Assessment criterion	Points achieved
<p>10.1.1. Have access to daylight</p> <p>Project with no common spaces devoted to the movement of customers</p> <ul style="list-style-type: none"> <input type="checkbox"/> Direct access to daylight from the cash registers <input type="checkbox"/> Measures taken to enable the future user(s) to access daylight from at least 50% of the surface area of sales spaces. Proven, satisfactory measures. <p>AND</p> <p>Write a paragraph into the future user(s) specifications encouraging the future user(s) to optimise access to natural light in its (their) sales area</p> <hr/> <p>Project with common spaces devoted to the movement of customers</p> <p>Measures taken to enable the future user(s) to access daylight in its private space(s). Proven, satisfactory measures.</p> <p>AND</p> <p>Write a paragraph into the future user(s) specifications encouraging the future user(s) to optimise access to natural light in its (their) sales area</p>	<p><i>PR</i></p> <p>3</p> <p>3</p>
<p>10.1.2. Have access to outdoor views</p> <p>Project with no common spaces devoted to the movement of customers</p> <p>Measures taken to enable the future user(s) to access views from at least 50% of the surface area of sales spaces. Proven, satisfactory measures.</p> <p>AND</p> <p>Write a paragraph into the future user(s) specifications encouraging the future user(s) to optimise access to views in its (their) sales area</p> <hr/> <p>Project with common spaces devoted to the movement of customers</p> <p>Measures taken to enable the future user(s) to access views in the sales spaces.</p> <p>AND</p> <p>Write a paragraph into the future user(s) specifications encouraging the future user(s) to optimise access to views in its (their) sales area</p>	<p>2</p> <p>2</p>
<p>10.1.3. Have a minimum level of natural lighting in occupancy areas</p> <p>Not covered in this scheme.</p>	



Assessment criterion	Points achieved
<p>10.1.4. Quality of natural light treatment</p> <p>Identify glare-sensitive areas in large common spaces and study the glare conditions in these areas. AND Proven and satisfactory measures to protect these spaces from direct or indirect sunlight in order to limit glare.</p>	2

EXHIBITION HALL

Assessment criterion	Points achieved
<p>10.1.1. Have access to daylight</p> <p>Identify the focal points of the hall (see practical guide for definition) AND Take measures to guarantee direct access to daylight at each identified focal point.</p>	PR
<p>10.1.2. Have access to outdoor views</p> <p>If the project includes at least two focal points Access to views from:</p> <ul style="list-style-type: none"> <input type="checkbox"/> at least 30% of focal points <input type="checkbox"/> at least 50% of focal points <input type="checkbox"/> at least 75% of focal points <input type="checkbox"/> 100% of focal points <p>► <i>These points cannot be accumulated</i></p> <hr/> <p>If the project has only one focal point Access to views from the focal point.</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>PR</p>
<p>10.1.3. Have a minimum level of natural lighting</p> <p>Provide natural lighting in the hall by integrating openings into the building façades (the ratio of translucent area to total building façade area must be greater than or equal to 20% with minimum light transmission of 50%) Provide natural lighting in the hall by integrating openings into the building façades (the ratio of translucent area to total building façade area must be greater than or equal to 30% with minimum light transmission of 50%)</p> <p>► <i>These points cannot be accumulated</i></p>	<p>2</p> <p>3</p>
<p>10.1.4. Quality of natural light treatment</p> <p>Identify glare-sensitive areas; study the glare conditions in these areas AND Proven and satisfactory measures to protect these spaces from direct or indirect sunlight in order to limit glare.</p>	3

SPACES IN HOTEL BUILDINGS

Assessment criterion	Points achieved
<p>10.1.1. Have access to daylight in spaces sensitive to natural lighting</p> <p>Percentage of spaces (weighted by surface area) with access to daylight:</p> <ul style="list-style-type: none"> ❑ Private guest areas Access to daylight in 100% of living areas ❑ Food-service areas frequented by guests Access to daylight in 100% of spaces, unless specific restrictions due to the context apply: dense urban site, underground restaurant. ❑ Lounge areas Access to daylight in: <ul style="list-style-type: none"> ▶ 60% of lounge areas ▶ 100% of lounge areas ▶ <i>These points cannot be accumulated</i> <hr/> <p>Horizontal corridors frequented by guests Ensure access to daylight in:</p> <ul style="list-style-type: none"> ❑ 20% of the surface area of walkways and open rest spaces ❑ 30% of the surface area of walkways and open rest spaces ❑ 50% of the surface area of walkways and open rest spaces ▶ <i>These points cannot be accumulated</i> <p>Walkways are those frequented by guests and are not covered by the 'large common spaces devoted to movement' table</p>	<p><i>PR</i></p> <p><i>PR</i></p> <p>1</p> <p>2</p> <p>1</p> <p>2</p> <p>3</p>

Assessment criterion	Points achieved
<p>10.1.2. Have access to outdoor views in spaces sensitive to natural lighting</p> <p>Percentage of spaces (weighted by surface area) with access to views (horizontal to line of sight):</p> <ul style="list-style-type: none"> ❑ Private guest areas <ul style="list-style-type: none"> ▶ Access to views in 100% of living areas ❑ Food-service areas frequented by guests <ul style="list-style-type: none"> ▶ Access to views in 100% of spaces, unless specific restrictions due to the context apply: dense urban site, underground restaurant. ❑ Lounge areas Access to views in: <ul style="list-style-type: none"> ▶ 60% of lounge areas ▶ 100% of lounge areas <p>▶ <i>These points cannot be accumulated</i></p> <hr/> <p>Horizontal corridors frequented by guests Access to views (horizontal to line of sight) in:</p> <ul style="list-style-type: none"> ❑ 10% of the surface area of walkways ❑ 20% of the surface area of walkways ❑ 30% of the surface area of walkways ❑ 50% of the surface area of walkways <p>▶ <i>These points cannot be accumulated</i></p> <p>Walkways are those frequented by guests and are not covered by the 'large common spaces devoted to movement' table</p>	<p><i>PR</i></p> <p><i>PR</i></p> <p>1</p> <p>2</p> <p>1</p> <p>2</p> <p>3</p> <p>4</p>
<p>10.1.3. Have a minimum level of natural lighting in occupancy areas</p> <p>Private guest areas Over 80% of the surface area of the area studied *, $DF_{\text{minimum}} \geq 1.5\%$ in 80% (by surface area) of living areas</p> <hr/> <p>Food-service areas frequented by guests Over 80% of the surface area of the area studied *, $DF_{\text{minimum}} \geq 1.5\%$ in 80% (by surface area) of the spaces in question</p>	<p>3</p> <p>4</p>
<p>10.1.4. Avoid direct and indirect glare</p> <p>Identify glare-sensitive spaces; study the glare conditions in these spaces. AND Proven and satisfactory measures to protect these spaces from direct or indirect sunlight in order to limit glare. (*) <i>The area studied is different for each space. See practical guide.</i></p>	<p>2</p>

SPACES IN THE "WAREHOUSE" AREA (LOGISTICS PLATFORM / SHIPPING DOCK)

Assessment criterion	Points achieved
10.1.1. Have access to daylight Provide access to natural light in adjoining rooms (loading rooms, boiler room, waste room).	2
10.1.2. Have access to outside views Access to outside views from the dock area Logistics platform warehouse: <ul style="list-style-type: none"> □ Access to outside views from the dock area for 15% of the dock's length. □ Building façade glazed surface larger than or equal to 2m² of building façade openings per 1,000m² of the warehouse area <p>► <i>These points cannot be accumulated</i></p> <hr/> Shipping dock warehouse: <ul style="list-style-type: none"> □ Access to outside views from the dock area for 20% of the dock's length. □ Access to outside views from the dock area for 50% of the dock's length. <p>► <i>These points cannot be accumulated</i></p>	PR 1 2 1 2
10.1.3. Have a minimum level of natural lighting Logistics platform warehouse: Minimum daylight factor (DF) to be achieved: <ul style="list-style-type: none"> □ DF ≥ 1% in 70% of the rooms in question (by surface area) □ DF ≥ 1.5% in 70% of the rooms in question (by surface area) AND DF ≥ 1% in 20% of the remaining rooms in question (by surface area) <p>► <i>These points cannot be accumulated</i></p> <hr/> Shipping dock warehouse : Minimum daylight factor (DF) to be achieved: <ul style="list-style-type: none"> □ DF ≥ 1.5% in 70% of the rooms in question (by surface area) □ DF ≥ 2% in 70% of the rooms in question (by surface area) AND DF ≥ 1.5% in 20% of the remaining rooms in question (by surface area) <p>► <i>These points cannot be accumulated</i></p>	2 3 2 3
10.1.4. Quality of natural light treatment Identify glare-sensitive areas (dock areas); study the glare conditions in these areas AND Proven and satisfactory measures to protect these spaces from direct or indirect sunlight in order to limit glare.	3

"CONTROLLED-TEMPERATURE WAREHOUSE" (REFRIGERATED WAREHOUSE) SPACE

Assessment criterion	Points achieved
10.1.1. Have access to daylight Not covered in this scheme.	
10.1.2. Have access to outdoor views <ul style="list-style-type: none"> <input type="checkbox"/> Access to outside views from the dock area for 10% of the dock's length. <input type="checkbox"/> Access to outside views from the dock area for 15% of the dock's length. <p>► <i>These points cannot be accumulated</i></p>	1 2
10.1.3. Have a minimum level of natural lighting Provide natural lighting by integrating openings into the dock doors For positive temperature-controlled warehouses or the dock area of negative temperature-controlled warehouses: Provide natural lighting by integrating translucent panes into the building façades (the ratio of translucent area to total façade area must be greater than 5%) <p>► <i>These points cannot be accumulated</i></p>	1 3

ASSOCIATED SPACES (ALL BUILDING TYPES)

Assessment criterion	Points achieved
<p>10.1.1. Have access to daylight in sensitive spaces</p> <p>Percentage of spaces (weighted by surface area) with access to daylight (spaces with direct or indirect access to light):</p> <ul style="list-style-type: none"> ❑ Closed rest spaces, Staff rest spaces: Access to daylight in 100% of spaces ❑ Walkways Have daylight visible in: <ul style="list-style-type: none"> ▶ 30% of the surface area of walkways ▶ 50% of the surface area of walkways ▶ <i>These points cannot be accumulated</i> ❑ Other spaces sensitive to natural lighting (food-service areas, meeting rooms, infirmaries, open rest areas, auditoriums, training rooms, documentation centres, reading rooms, childcare centres) <ul style="list-style-type: none"> ▶ Access to daylight, but no surface area percentage requirements ▶ Access to daylight in: <ul style="list-style-type: none"> ■ 40% of the surface area of sensitive spaces ■ 60% of the surface area of sensitive spaces ▶ <i>These points cannot be accumulated</i> 	<p><i>PR</i></p> <p>1</p> <p>2</p> <p><i>PR</i></p> <p>1</p> <p>2</p>
<p>10.1.2. Have access to outdoor views in sensitive spaces</p> <ul style="list-style-type: none"> ❑ Closed rest spaces, Staff rest spaces: Access to views in 100% of spaces ❑ Walkways: Access to views (horizontal to line of sight) in at least 50% of the surface areas of walkways. ❑ Other spaces sensitive to natural lighting (food-service areas, meeting rooms, infirmaries, open rest areas, auditoriums, training rooms, documentation centres, reading rooms, childcare centres) <ul style="list-style-type: none"> ▶ Access to views, but no surface area percentage requirements ▶ Access to views in: <ul style="list-style-type: none"> ■ 40% of the surface area of sensitive spaces ■ 60% of the surface area of sensitive spaces ▶ <i>These points cannot be accumulated</i> 	<p><i>PR</i></p> <p>1</p> <p><i>PR</i></p> <p>1</p> <p>2</p>

Assessment criterion	Points achieved
<p>10.1.3. Have a minimum level of natural lighting</p> <p>Minimum daylight factor (DF) to be achieved:</p> <p>Other sensitive spaces $DF \geq 1\%$ over 70% of the surface area of 70% of sensitive spaces (by surface area)</p> <p><i>The thresholds may be decreased by 0.5% under certain special conditions (see practical guide) (except for levels at 0.7%)</i> <i>The percentages apply to the surface areas on a weighted basis (see calculation method in the practical guide)</i> <i>The sensitive spaces in question are mentioned in the practical guide</i></p>	2
<p>10.1.4. Quality of natural light treatment</p> <p>Identify glare-sensitive spaces and study the glare conditions in these spaces. AND Proven and satisfactory measures to protect these spaces from direct or indirect sunlight in order to limit glare.</p> <p>Identify glare-sensitive spaces requiring the incoming natural light to be controlled and study the glare and control conditions of natural light in these spaces. AND Proven and satisfactory measures to guide, filter and/or diffuse daylight in these spaces in order to control the incoming natural light and limit direct or indirect glare in these spaces.</p> <p>► <i>These points cannot be accumulated</i></p>	<p>1</p> <p>2</p>

OTHER CHARACTERISTIC SPACES OF ACTIVITY (RELATING TO AN ACTIVITY NOT COVERED BY A PREVIOUS TABLE)

Assessment criterion	Points achieved
<p>10.1.1. Have access to daylight in sensitive spaces</p> <p>Compliance with the programme or the applicant's contractual requirements</p>	PR
<p>10.1.2. Have access to outdoor views in sensitive spaces</p> <p>Compliance with the programme or the applicant's contractual requirements</p>	PR
<p>10.1.3. Creation of spaces with a minimum level of natural lighting and optimum treatment of the quality of natural light</p> <p>Natural light visual comfort indicators:</p> <ul style="list-style-type: none"> ■ Lighting level ■ Quality of light treatment <p>Two solutions can be used to prove the achievement of the prerequisite:</p> <p>1- Complying with the programme's target figures or the applicant's contractual requirements for each indicator above</p> <p>2- Defining three performance levels for each indicator:</p> <ul style="list-style-type: none"> ▶ CURRENT LOCAL STANDARD PRACTICE level; ▶ PERFORMING level; ▶ HIGH-PERFORMING level; <p>and complying with the CURRENT LOCAL STANDARD PRACTICE level, proven by a natural lighting study performed on the spaces characteristic of the activity with respect to the two visual comfort indicators above</p> <p>visual environment criteria above</p> <p>Complying with the PERFORMING levels for each indicator</p> <p>Complying with the HIGH-PERFORMING levels for each indicator</p> <p>▶ <i>These points cannot be accumulated</i></p>	<p>PR</p> <p>3</p> <p>5</p>

10.2. Comfortable artificial lighting

Assessment criterion	Points achieved
<p>10.2.1. Have optimal lighting levels</p> <p>Minimum lighting capabilities to provide: According to the type of space: comply with the values of standard EN 12464 - 1 [A] Office spaces are treated in the same way as the "Computer practice rooms" in educational buildings mentioned in standard EN 12464-1 [A] if:</p> <ul style="list-style-type: none"> <input type="checkbox"/> the room is occupied for short periods, or <input type="checkbox"/> the dimensions or the contrasts of the details of the task to be performed are high, or <input type="checkbox"/> working using screens is performed. 	PR
<p>10.2.2. Ensure the uniformity of the lighting</p> <p>Uniformity Factor $U = E_{min} / E_{avg}$ over the entire surface area of the space (less 0.5 metres around the room)</p> <ul style="list-style-type: none"> <input type="checkbox"/> In accordance with the uniformity of the working area mentioned in standard EN 12464-1 [A] <input type="checkbox"/> At least 0.1 greater than the uniformity factors of the previous level over the total surface area of the room, less a maximum strip of 0.5 around the perimeter. <p>► <i>These points cannot be accumulated</i></p>	1 3
<p>10.2.3. Avoid glare due to artificial lighting and seek a balance between light sources from the surrounding light environment</p> <p>Identify the risks of artificial lighting glare and measures taken to install light fixtures according to the furnishing layout so as to avoid artificial lighting glare. Comply with the recommendations of standard EN 12464-1 [A]</p> <p>Comply with the Unified Glare Rate (UGR) stipulated by standard EN 12464-1 [A] OR Study the conditions for balancing light sources in the indoor environment. Proven, satisfactory measures.</p> <p>Carry out a study on the conditions for balancing light sources in the indoor environment with respect to the combined artificial AND natural lighting. Proven, satisfactory measures.</p> <p>► <i>These points cannot be accumulated</i></p>	PR 2 3

Assessment criterion	Points achieved
<p>10.2.4. Provide a comfortable quality of light emitted</p> <p>Give consideration to the colour temperatures and colour rendering indexes based on the project background and the desired environment. AND Comply with the recommendations of standard EN 12464-1 [A] AND Comply with the colour temperatures identified as most suitable for the project. AND Ensure satisfactory colour rendering indexes CRI for ordinary activities: CRI ≥ 80</p> <p>Give consideration to the colour temperatures and colour rendering indexes based on the project background and the desired environment. AND Comply with the recommendations of standard EN 12464-1 [A] AND Comply with the colour temperatures identified as most suitable for the project. AND Ensure satisfactory colour rendering indexes for activities requiring careful distinction between colours: CRI ≥ 90</p> <p>► <i>These points cannot be accumulated</i></p> <hr/> <p>For each type of sensitive space, carry out a lighting study taking into account at least three of the criteria below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Optimal level of lighting (in lux); <input type="checkbox"/> Artificial lighting glare conditions (identify glare-sensitive areas beforehand); <input type="checkbox"/> Indoor ambient light balancing conditions; <input type="checkbox"/> Quality of light emitted (colour rendering index and colour temperature). <p>AND Implement the solutions identified by the study as the most suitable.</p>	<p>1</p> <p>2</p> <p>3</p>
<p>10.2.5. Control of visual environment by users</p> <p>Functional device(s) are made available enabling users to affect the (background or spot) lighting in rooms.</p>	2

OLFACTORY COMFORT



11

STRUCTURE OF TARGET 11

11.1 CONTROLLING THE SOURCES OF UNPLEASANT ODOURS

ASSESSMENT OF TARGET 11

TARGET 11	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i> of sub-target 13.1
PERFORMING	Compliance with <i>PREREQUISITES</i> of sub-target 13.1 AND ≥30% of the APPLICABLES points on sub-target 13.1 AND ≥30% of the APPLICABLES points
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> of sub-target 13.1 AND ≥60% of the APPLICABLES points on sub-target 13.1 AND ≥60% of the APPLICABLES points

Number of points to obtain on Target 11:

	Number of points available	Number of points to obtain (if all points are applicable) to achieve level :	
Spaces / Sub-targets	11.1	P	HP
NON-RESIDENTIAL BUILDINGS	5	2	3

Number of points to obtain on Sub-target 13.1:

	Number of points available	Number of points to obtain (if all points are applicable) to achieve level :	
Spaces / Sub-targets	13.1	P	HP
NON-RESIDENTIAL BUILDINGS	25	8	15



TARGET 11 ASSESSMENT TABLES

11.1. Controlling the sources of unpleasant odours

Assessment criterion	Points achieved
11.1.1. Identify and reduce the effects of sources of odours Identify sources of internal and external odours AND Justified and satisfactory measures taken in relation to the project to reduce their effects.	2
11.1.2. Treat foul-smelling wasteemissions in order to prevent odours from spreading Identify wasteemissions which areis a source of unpleasant odours and take measures to treat these odours in order to prevent them from being spread.	3

SPACES QUALITY



STRUCTURE OF TARGET 12

12.1 LIMITING ELECTROMAGNETIC EXPOSURE

12.2 CREATING SPECIAL HEALTH CONDITIONS

ASSESSMENT OF TARGET 12

TARGET 12	ASSESSMENT				
PR	Compliance with <i>PREREQUISITES</i>				
PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 50% of the APPLICABLES points				
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 75% of the APPLICABLES points				
Number of points available				Number of points to obtain (if all points are applicable) to achieve level :	
Sub-targets	12.1	12.2	Totals	P	HP
NON-RESIDENTIAL BUILDINGS	7	13	20	10	15

Assessment criterion	Points achieved
<p>12.1.1. Identify sources of electromagnetic emissions</p> <p>"Energy" sources Identify sources of low-frequency electromagnetic wave emissions from the surrounding environment AND the project</p> <hr/> <p>"Telecom" sources</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identify sources of radio waves from the immediate environment. <input type="checkbox"/> Identify sources of radio waves from the immediate environment AND estimate the surrounding electromagnetic field and that of the project AND express the project's contribution to overall exposure 	<p><i>PR</i></p> <p><i>PR</i></p> <p>3</p>
<p>12.1.2. Limit the impact of sources of electromagnetic emissions</p> <p>"Energy" sources Take proven and satisfactory measures to optimise the choice of equipment from an electromagnetic point of view AND limit their impact.</p> <hr/> <p>"Telecom" sources Take proven and satisfactory measures to optimise the electromagnetic field of the project.</p>	<p>2</p> <p>2</p>

12.2. Creating special health conditions

Assessment criterion	Points achieved
<p>12.2.1. Create special health conditions (except maintenance rooms)</p> <p>Spaces devoted to food preparation Measures taken in spaces devoted to food preparation to enable the progression of the different elementary operations leading to the preparation of dishes/food. Proven, satisfactory architectural measures are taken so as to encourage compliance with standard ISO 22000 [A], particular with respect to the HACCP method during the operating phase.</p> <p>Identify areas and rooms which are sensitive to special health conditions AND Measures taken to create optimal health conditions in areas and rooms that are sensitive to special health conditions with respect to particular activities.</p>	<p>PR</p> <p>2</p>
<p>12.2.2. Optimise the health conditions of maintenance rooms</p> <p>Create at least one maintenance space adapted to the building. Architectural and technical measures taken for the location and design of these rooms or spaces in order to facilitate the cleaning of the building and create basic health conditions therein.</p>	<p>PR</p> <p>2</p>
<p>12.2.3. Choose materials that limit the growth of fungi and bacteria ⁽¹⁾</p> <p>For rooms that are sensitive to special health conditions For these rooms, whose surfaces are regularly wet down and cleaned, known health characteristics for all members of the internal coverings category (floors, walls, ceilings), including finishing products. AND take into account the health criteria when choosing a product, at least for the member of that category with the greatest impact.</p> <p>For all other rooms Known health characteristics for all members of the internal coverings category (floors, walls, ceilings), including finishing products for all other rooms, for at least</p> <ul style="list-style-type: none"> <input type="checkbox"/> 50% <input type="checkbox"/> 80% <p>► <i>These points cannot be accumulated</i></p> <p>AND take into account the health criteria when choosing a product, at least for the member of that category with the greatest impact.</p> <hr/> <p>All paints and varnishes are treated with fungicides and bactericides.</p> <p><i>(1) Does not apply to warehouses of logistics platforms and shipping docks or exhibition halls.</i></p>	<p>2</p> <p>2</p> <p>4</p> <p>3</p>

AIR QUALITY



STRUCTURE OF TARGET 13

13.1. GUARANTEEING EFFECTIVE VENTILATION

13.2 CONTROLLING SOURCES OF INDOOR AIR POLLUTION

ASSESSMENT OF TARGET 13

TARGET 13	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i>
PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥35% of the APPLICABLES points on Sub-target 2.4 AND ≥30% of the APPLICABLES points on Target 13
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥50% of the APPLICABLES points on Sub-target 2.4 AND ≥60% of the APPLICABLES points Including the 3 <i>MANDATORY POINTS</i> for requirement 13.1.1 and 4 POINTS for requirement 13.2.2 (except radon)

Number of points to obtain on Target 13 :

	Number of points available			Number of points to obtain (if all points are applicable) to achieve level :	
Spaces / Sub-targets	13.1	13.2	Totals	P	HP
NON-RESIDENTIAL BUILDINGS	22	10	32	10	20
LOGISTICS PLATFORM / SHIPPING DOCK / REFRIGERATED WAREHOUSE AND EXPOSITION HALLS	22	0	22	7	14

Number of points to obtain on Sub-target 2.4 :

	Number of points available		Number of points to obtain (if all points are applicable) to achieve level :	
Spaces / Sub-targets	2.4	Totals	P	HP
NON-RESIDENTIAL BUILDINGS	14	14	5	7

TARGET 13 ASSESSMENT TABLES

13.1. Guaranteeing effective ventilation

Assessment criterion	Points achieved
<p>13.1.1. Provide air flows suitable for the activity of the rooms</p> <p>Implement one or more special ventilation system(s) (mechanical or natural), Simply manually opening the windows is not sufficient. AND If natural ventilation is planned in some spaces and it is not controlled, additional mechanical ventilation must be provided. AND With mechanical ventilation present:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Evidence of attainment of fresh air flows at least compliant with Category II of appendix B of standard EN 15251:2007 [A], for occupied premises, for pollution due to human occupation, and compliant with appendix B4 of standard EN 15251:2007 for unoccupied premises, for all spaces. <input type="checkbox"/> Balancing of main ventilation branches <input type="checkbox"/> Adherence to design recommendations in Appendix A of standard EN 13779 [B]. <p>Study and measures taken to ensure that the air flows supplied and the indoor air quality conditions are:</p> <ul style="list-style-type: none"> <input type="checkbox"/> At least compliant with category II for human pollution, and category II for building emissions in appendix B of standard EN 15251:2007, according to the calculation method defined in the practical guide for occupied premises, AND <input type="checkbox"/> compliant with appendix B4 of standard EN 15251:2007 for unoccupied premises, for all spaces. AND Evidence of fresh air flows by means of measurement. <p>Study and measures taken to ensure that the air flows supplied and the indoor air quality conditions are:</p> <ul style="list-style-type: none"> <input type="checkbox"/> At least compliant with category I for human pollution, and category I for building emissions in appendix B of standard EN 15251:2007, according to the calculation method defined in the practical guide for occupied premises, AND <input type="checkbox"/> compliant with appendix B4 of standard EN 15251:2007 for unoccupied premises, for all spaces. AND Evidence of fresh air flows by means of measurement. <p>► <i>These points cannot be accumulated</i></p>	<p><i>PR</i></p> <p>3</p> <p>4</p>

[illegible]

13.2. Controlling sources of indoor air pollution*

*** IMPORTANT: The warehouse areas of logistics platforms/shipping docks/refrigerated warehouses and exhibition halls are not covered by requirements 13.2.2 and 13.2.3.**

Assessment criterion	Points achieved
<p>13.2.1. Identify and reduce the effects of internal and external sources of pollution</p> <p>Drawing up a descriptive booklet identifying the internal “non-building” pollution sources and external sources AND Justified and satisfactory measures taken with respect to the project to reduce their effects.</p>	PR
<p>13.2.2. Control occupants' exposure to indoor air pollutants</p> <p>If a radon hazard is identified, carry out a measurement and comply with the following thresholds:</p> <ul style="list-style-type: none"> <input type="checkbox"/> <400 Bq/m³ <input type="checkbox"/> <300 Bq/m³ <input type="checkbox"/> <200 Bq/m³ <input type="checkbox"/> <100 Bq/m³ <p>► <i>These points cannot be accumulated</i></p> <hr/> <p>To ensure a representative sample of homogeneous blocks of rooms characteristic of the type of building (whose occupancy is not of short duration), perform an air quality measurement focusing on the following pollutants:</p> <ul style="list-style-type: none"> ■ Nitrogen dioxide (NO₂) ■ Carbon monoxide (CO) (if source) ■ Benzene ■ Formaldehyde ■ TVOC ■ Particles (PM_{2.5} and PM₁₀) <hr/> <p>As above AND: Comply with the following health reference values for the following pollutants:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Nitrogen dioxide (NO₂): 40 µg.m-3 <input type="checkbox"/> Carbon monoxide (CO) (if source): <ul style="list-style-type: none"> ■ 10 µg.m-3 for an exposure of 8 hours ■ 30 µg.m-3 for an exposure of one hour <input type="checkbox"/> Benzene: < 5 µg.m-3 <input type="checkbox"/> Formaldehyde: < 30 µg.m-3 <input type="checkbox"/> TVOC: level 1: < 300 µg.m-3 <input type="checkbox"/> Particles (PM_{2.5} and PM₁₀): long term: PM 10: < 20 µg.m-3 and PM 2.5: < 10 µg.m-3 	<p>1 2 3 4</p> <p>3</p> <p>4</p>

Assessment criterion	Points achieved
Continuation of 13.2.2 <hr/> <p>As above AND:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Benzene: < 2 µg.m-3 <input type="checkbox"/> Formaldehyde: < 10 µg.m-3 <p>► 10 µg.m-3e:2.5: < 10 10):e hourlow</p>	5
13.2.3. Prevent the growth of bacteria in the air <p>Identify systems liable to encourage the growth of bacteria in the air (particularly air-conditioning systems⁽¹⁾) as well as the spaces in question AND Measures taken to prevent this risk.</p>	1

(1) Not including cooling towers (dealt with in target 1)

WATER QUALITY



STRUCTURE OF TARGET 14

14.1. DESIGN QUALITY OF THE BUILDING'S INTERNAL WATER NETWORK

14.2. CONTROLLING THE TEMPERATURE INSIDE THE BUILDING'S INTERNAL WATER NETWORK

14.3. CONTROLLING WATER TREATMENTS

14.4. WATER QUALITY IN BATHING AREAS

ASSESSMENT OF TARGET 14

TARGET 14	ASSESSMENT
PR	Compliance with <i>PREREQUISITES</i>
PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 50% of the APPLICABLES points
HIGH PERFORMING	Compliance with <i>PREREQUISITES</i> AND ≥ 75% of the APPLICABLES points

	Number of points available					Number of points to obtain (if all points are applicable) to achieve level :	
Sub-targets	14.1	14.2	14.3	14.4	Totals	P	HP
NON-RESIDENTIAL BUILDINGS	7	11	3	0	21	11	16
BATHING AREAS				6	27	14	21

TARGET 14 ASSESSMENT TABLES

14.1.Design quality of the building's internal water network

Assessment criterion	Points achieved
<p>14.1.1. Choose materials compatible with the nature of the water being distributed</p> <p>For any contact with water intended for human consumption, choose materials from among those below :</p> <ul style="list-style-type: none"> <input type="checkbox"/> Metals, alloys and metal coverings based on copper, iron, aluminium and zinc; <input type="checkbox"/> Materials based on hydraulic binder substances, enamels, ceramics and glass; <input type="checkbox"/> Organic materials benefiting from a certificate of compliance (equivalent to the ACS (Certificate of Sanitary Compliance) approved by a recognised scientific body) <hr/> <p>For any contact with water intended for human consumption, choose materials that allow the curative thermal or chemical treatment of the cold water network in the event of contamination</p>	<p><i>PR</i></p> <p>2</p>
<p>14.1.2. Comply with pipeline implementation rules</p> <p>Implement pipelines in accordance with standard practice set out in the technical guide of the CSTB [A] for the material in question or a technical guide to best practice applicable in the country in question</p>	<p>2</p>
<p>14.1.3. Provide structure and signs to the indoor network based on water usage</p> <p>If reclaimed water is used</p> <p>Measures taken to:</p> <ul style="list-style-type: none"> ▶ Separate the distributed water network from other water networks ; ▶ Protect distributed water network from other networks ; ▶ Mark the recovered water network with durable signs in order to differentiate water networks; <p>Proven, satisfactory measures.</p> <hr/> <p>Identify the water usages in the project and the locations of consumption points and arrange the internal water network into standard networks, in accordance with the technical guide of the CSTB [A] or a technical guide to best practice applicable in the country in question.</p>	<p><i>PR</i></p> <p>1</p>



Assessment criterion	Points achieved
<p>14.1.4. Protect the indoor network</p> <p>Comply with rules for protecting connected equipment, standard networks and the public hook-up, set out in the technical guide of the CSTB [A] or a technical guide to best practice applicable in the country in question</p> <p>AND</p> <p>Make an appropriate choice of protective equipment in accordance with standard EN 1717:2001 [G]</p>	2

14.2. Controlling the temperature inside the building's internal water network

Assessment criterion	Points achieved
<p>14.2.1. Ensure a sufficient temperature in the DHW distribution and production networks in order to minimise the risk of legionella</p> <p>Measures taken to ensure that, where the volume between the distribution point and the furthest consumption point is greater than 3 litres, the water temperature is higher than or equal to 50°C at all points of the distribution system, with the exception of the end feed pipes of the consumption points. Measures taken to ensure that, where the total volume of the storage equipment is greater than or equal to 400 litres, the water contained within that equipment, except the preheating tanks:</p> <ul style="list-style-type: none"> <input type="checkbox"/> is constantly at a temperature higher than or equal to 55°C at the outlet point of the equipment, or <input type="checkbox"/> can be brought up to a sufficient temperature at least once every 24 hours. <p>Insulate the DHW networks</p> <p>Depending on the water uses, define and justify the planned temperatures at the building's various drawing points. And identify the high-risk points of the internal water network, supply a map of them and take satisfactory measures to prevent the risk of legionella in the design of the internal water networks according to the identified high-risk points.</p>	PR
<p>14.2.2. Optimise the design the DHW network(s) so as to limit the risk of legionellosis</p> <p>Where a looped network(s) is/are present</p> <ul style="list-style-type: none"> <input type="checkbox"/> Looped networks are designed incorporating the balance calculation, in accordance with the hydraulic rules in the technical guide of the CSTB [C] or a technical guide to best practice applicable in the country in question, and taking into account the adjustability limits of the regulating devices. <input type="checkbox"/> A balanced system guaranteeing a speed greater than 0.20 m/s is implemented in all loop returns <input type="checkbox"/> A temperature of 55°C is guaranteed at all points of the DHW distribution systems (except for antennas that serve high-risk consumption points whose volume is less than 3 litres). 	<p>3</p> <p>2</p> <p>2</p>

[illegible]

14.3. Controlling water treatments

Assessment criterion	Points achieved
<p>14.3.1. Choose disinfection and/or anti-corrosion and/or anti-scaling treatments and are compatible with the type of water distributed</p> <p>If continuous treatment is applied to internal water networks With respect to continuous treatments implemented for the maintenance of internal water networks (disinfection and/or anti-corrosion and anti-scaling treatments), guarantee that the treatments are appropriate (in the choice of products and concentrations) for the type of water and according to the composition of the internal network in accordance with the technical guide of the CSTB [A] or a technical guide to best practice applicable in the country in question</p>	1
<p>14.3.2. Manage the health risk related to the recovery and reuse of non- water recovered on-site (and treat reused water)</p> <p>If non-drinking water is reused on-site for internal use(s) Measures taken to guarantee the quality of non-drinking water at the usage points by means of an appropriate additional treatment process (if required).</p>	2

14.4. Water quality in bathing areas

BATHING AREAS

Assessment criterion	Points achieved
<p>14.4.1. Treat polluted bathing water</p> <p>Design a suitable treatment process to eliminate pollution from bathing water before it is recycled, so as to ensure the health quality of the bathing water. Justify the process implemented AND Prove the concentrations of disinfectant products carried into bathing pool water</p>	PR
<p>14.4.2. Prevent pollution deposits in bathing water</p> <p>Measures taken to prevent pollution deposits in bathing water and optimise the circulation of water in bathing pools. Proven, satisfactory measures. Perform a dye test to check the homogeneity of the circulation of water in bathing pool(s) in accordance with Appendix A of standard EN 15288-2: 2008 [H]</p>	2
<p>14.4.3. Control the concentration of trichloramine in bathing pool water</p> <p>Take technical design measures to limit the trichloramine content in the tank water to ensure, during future operation of the building, contents less than :</p> <ul style="list-style-type: none"> <input type="checkbox"/> 0.3 mg/L <input type="checkbox"/> 0.1 mg/L <p>► <i>These points cannot be accumulated</i></p> <p>Description and justification of the process implemented to achieve this result. Maintenance notebook sent to the operator, specifying how to maintain these contents during the future operation of the building, and the corrective procedure specified if the thresholds are exceeded.</p>	<p>2</p> <p>4</p>



Part II: Terminology

Activity

Building or part of a building comprising one dominant functionality, associated with a cluster of spaces intended to be used for the activity in question, which may be carried out entirely independently of the building's other activities where they exist.

Example:

- ✓ Theatre activity: Spaces for performance halls, wings, dressing rooms, offices, meeting rooms, etc.
- ✓ Secondary education activity: Spaces for classrooms and practical activities, administration and staff rooms, etc.
- ✓ Hotel activity: Private guests areas, lounge areas, receptions, etc.

Applicability

Occasionally, some requirements may prove not to apply; the reason should be obvious. Where this is not the case, it must be justified by the specific characteristics of the project. In this case, the requirement is ignored and the assessment carried out as if it did not exist. Please note that the prerequisites remain applicable.

Environmental Performance Target of the Building

Category of environmental requirements applicable to the building. This scheme uses 14 targets, structured into four themes: Site and construction, Management, Comfort and Health. The targets are sub-divided into sub-targets, which are themselves broken down into requirements.

Energy

- ✓ Target 4: Energy management

Environment

- ✓ Target 1: Site
- ✓ Target 2: Components
- ✓ Target 3: Worksite
- ✓ Target 5: Water
- ✓ Target 6: Waste
- ✓ Target 7: Maintenance

Comfort

- ✓ Target 8: Hygrothermal comfort
- ✓ Target 9: Acoustic comfort
- ✓ Target 10: Visual comfort
- ✓ Target 11: Olfactory comfort

Health

- ✓ Target 12: Spaces quality
- ✓ Target 13: Air quality
- ✓ Target 14: Water quality

Applicant

Natural person or legal entity for whom the building is constructed and who asks for the structure to be certified.

Assessment of the Environmental Performance of the Building

Process used to establish the environmental and sanitary performance of a building.

This includes the collection and analysis of data, the assessment of information in relation to environmental performance criteria defined in a scheme and communication reports and methods. The EPB technical scheme is used as a basis for the assessment. The results are summarised in a profile with 14 components, representing the performance levels obtained for the 14 EPB targets.

Characteristic space of an activity

Main spaces of the activity in question.

Examples:

- ✓ Classrooms for 'secondary education' activity
- ✓ Performance halls for 'theatre' activity
- ✓ Private guest areas for 'hotel' activity

Criterion for the Environmental Performance of the Building (EPB)

For this certification, this is a requirement represented by a threshold to be reached or a condition to be met, in order to attain a required performance level for a given characteristic that reflects a requirement.

Environment

Surroundings in which an organisation operates, including air, water, earth, natural resources, flora, fauna, human beings and their interrelationships. [ISO 14001]

Environmental Performance of the Building (EPB)

The Environmental Performance of the Building is the ability of all of its intrinsic characteristics (those of the building, its equipment and its parcel of land) to meet requirements that relate to:

- ✓ the management of impacts on the external environment
- ✓ the creation of a comfortable, healthy internal environment.

For this certification, it is expressed through a profile of 14 categories of requirements, referred to as EPB targets and sub-targets, for which there are three possible performance levels: Prerequisite, Performing and High Performing.

Environmental requirement

Concrete, operational topic relating to the environmental and sanitary impacts of buildings for which means of action may be implemented.

High Environmental Quality (HQE)

High Environmental Quality is a project management initiative which aims to control the impact of a construction or renovation project on the external environment and on the comfort and health of users, whilst managing the operational processes related to the scheduling, design and implementation phases. The goal of this initiative is to attain the Environmental Performance of the Building.

International system of units

The numerical results obtained from the requirements must be presented using the international system of units (SI). It is accepted that the calculations may be presented using other units. However, in this case, they must be converted and presented also using the international system of units.

Parties involved

Participants in the act of building, usually bound to the requestor under a contract.

For this certification, the parties involved are, for example, the assistant to the certification requestor, the programme manager, the architect, the engineering and design departments, the technical inspection department, the quantity surveyor, businesses, craftspeople, etc.

Pre-project

Phase during which the programme, a document for the attention of the architect for the architectural and technical design of the building, is drawn up. For the needs of this certification, programming consists of defining the expected or desired performance levels of the building.

Prerequisite

Minimum level a building must attain on a target in order to be HQE certified.

Project

Building, associated services and all processes leading to the completion of the building.

Principle of equivalence

Given the variety of technical and architectural solutions that contribute to the EPB and that are not generally possible to predict, and in order to encourage innovation, the project participants may apply a 'principle of equivalence' for the Performing and High Performing levels.

This consists of proposing, with appropriate justification, an alternative assessment method based on assessment criteria other than those in the Assessment Scheme for the Environmental Performance of Buildings but addressing the same requirement. This principle makes verifying the assessment more complicated (where necessary calling in an expert to validate the approach), but gives some flexibility to the scheme.

Project Environmental Management Requirements Scheme

Group of elements used to set the EPB targets and organise the project to achieve them. This scheme uses its own scheme where this certification is concerned.



Stakeholder

"Individual or group concerned with or affected by the environmental performance of an organisation." [ISO 14001]

For this certification, the stakeholders are, for example, users of the building, elected officials, policy makers, future users, future managers, local communities, residents, local associations concerned with the environment, various organisations concerned by the project's environmental aspects, etc.

Sector

General term referring to a cluster of spaces covering similar activities.

For example, for the 'office' sector, the following activities may be cited: 'office building', 'police station', 'call centre', 'non-medical healthcare centre', 'business centre', etc. All of these activities share the 'office' characteristic space, whether individual, collective or open-plan.

Surface area used in the calculations (in the EPB targets)

The surface area used in the calculations relative to the targets is the surface area that is normally used in the relevant country.

Surface area used in the calculations (optional) of the "conventional performance indicators of the building" document

The surface area that is used in the calculations is equal to the sum of the surface areas of closed and covered floors of each level of the building, at a ceiling height of more than 1.80 m, calculated on the basis of the bare interior of the facades after deduction of the surface areas of the voids and cavities, parking areas, basements or cellars, roof voids and technical rooms.

Type of building space

Brings all spaces relating to a single activity under the responsibility of a single requestor for a single building, which may be assessed by one building environmental performance certification technical scheme.

An EPB assessment is associated with each type of building space