Support system for the search, evaluation and certification of sustainable built environments

LiderA’s mission aims to contribute to the creation, support, management and certification of sustainable built environments, supporting the demand for sustainable communities.
what is LiderA?

It is a voluntary sustainability assessment system for the support and development of sustainable solutions that assigns, in case of proven environmental performance, a certification by the Portuguese registered brand “LiderA - Sustainability Assessment System”.

how did it appear?

It emerged during a research, begun in 2000 by Manuel Duarte Pinheiro, in IST's Architecture and Civil Engineering Department (Lisbon, Portugal), regarding the need for a system that could support, assess and contribute to the sustainable design and environmental management of built environments.

what are the main goals?

To support the demand for sustainability in the promotion, design, construction and management of built environments. LiderA aims to be a distinctive brand, Business to Business type, of buildings environmental performance levels and sustainable construction both in Portugal and Portuguese Speaking Countries.

to whom it is intended for?

It is intended for Promoters, Designers, Builders, Building managers, and Clients and Users of built environments.

what does it assess?

It assesses residential, touristic, commercial, services, and other developments (buildings and intervened spaces), in each building’s life cycle phase, including large developments and / or built areas and / or building (s) and / or dwellings.

how is it organized?

The system is based on a set of six good sustainable performance principles (local integration, resources, environmental loads, environmental comfort, socio-economic adaptability, and environmental management and innovation) translated in 22 areas and 43 criteria, in which the built environment (based on the buildings) will be assessed in terms of its sustainable performance.

which performance levels are considered?

It categorizes the path to sustainability according to different performance values (thresholds) that result from the achieved level and the type of use. The system classifies performance from an A to G range, where level E represents common practice and level A, in many criteria, corresponds to a performance 50% superior to level E, with level A+ corresponding to a factor 4 (or 75%), level A++ to a factor 10 (or 90%) and level A+++ to a regenerative factor.

how to facilitate the integration and development of solutions?

It is increasingly being used as an integrated approach for the development and promotion of plans, projects and solutions, both for new built environments and for the renovation and rehabilitation of existing buildings or developments.

how to certify and recognize?

After an independent verification by LiderA, in which it must be evident that environmental performance is within Class C or higher, the system make a recognition possible during design and planning stages and/or during the construction and operation phases the building or development’s good performance.

how to support management and sustainable use?

LiderA’s approach can support environmental management of construction works and operation use, in order to ensure the quest for sustainability.

which are the defined costs?

Costs depend on the type and size of the development, according to each different process, which may consist of supporting development solutions, environmental management, prior assessment and certification, in which costs are determined case by case. The certification costs sum up to 1500 € per case + 0.3 €/m² of gross built area (GBA). The process values are reduced by 50% if a LiderA officer is involved, likewise the overall price will be reduced by 50% if there is an agreement with the municipality involved.
<table>
<thead>
<tr>
<th>Category</th>
<th>Area</th>
<th>Criteria</th>
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</thead>
<tbody>
<tr>
<td>Site and integration</td>
<td>soil</td>
<td>territorial valorisation</td>
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<td>environmental deployment optimization</td>
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<td>natural ecosystems</td>
<td>ecological valorisation</td>
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<td>habitats connection</td>
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<tr>
<td>6 criteria</td>
<td>landscape and heritage</td>
<td>landscape integration</td>
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<td>14%</td>
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<td>heritage protection and enhancement</td>
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<td>Resources</td>
<td>energy</td>
<td>energy certification</td>
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<td>passive design performance</td>
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<td>carbon intensity (equipment efficiency)</td>
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<td>water</td>
<td>domestic water consumption</td>
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<td>local water consumption</td>
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<td>materials</td>
<td>durability</td>
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<td>9 criteria</td>
<td>food production</td>
<td>local food production</td>
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<td>32%</td>
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<td>wastewater treatment</td>
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<td>Environmental loadings</td>
<td>atmospheric emissions</td>
<td>atmospheric emissions control</td>
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<td>wastewater use</td>
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<td>waste management</td>
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<td>waste valorisation</td>
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<td>8 criteria</td>
<td>noise emissions</td>
<td>noise emissions control</td>
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<td>12%</td>
<td>thermal and light pollution</td>
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<td>Environmental comfort</td>
<td>air quality</td>
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<td>thermal comfort</td>
<td>thermal comfort</td>
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<td>4 criteria</td>
<td>lighting and acoustic</td>
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<td>15%</td>
<td>access for all</td>
<td>acoustic insulation/noise levels</td>
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<td>Socio-economic experience</td>
<td>economic diversity</td>
<td>flexibility/adaptability</td>
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<td>amenities and social interaction</td>
<td>local amenities</td>
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<td>control and participation</td>
<td>controllability</td>
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<td>13 criteria</td>
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<td>Sustainable use conditions</td>
<td>environmental management</td>
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<td>innovation</td>
<td>innovation solutions</td>
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Performance:
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- C3
- C4
- C5
- C6
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- C40
- C41
- C42
- C43
how to position within each criterion?
For each criterion it is possible, using LiderA’s thresholds and comparing them with solutions and planned or implemented performances, to verify how the project stands against common practices (E class), and also how it surpasses this performance, for example: 25% will be a C class, 50% an A class, four times an E class is an A+ Class, and ten times an E class is an A++ Class. This approach allows positioning the value of each criterion in the path for sustainable environmental efficiency. By grouping the environmental performance in each criterion, it is obtained the performance by areas. When pondering performance in each area (wi) it is obtained the positioning by category and when pondering the performance in each category, it is obtained the global environmental performance and the class of sustainability.

how to apply for development?
The application may occur in the following terms:
(d1) contact the development team, that should be informed of the type of project in question, and its characteristics, in order to determine the thresholds and the adequate performance levels;
(d2) involve LiderA advisor (list available on site), agreeing the scope and steps to follow;
(d3) advising on sustainability, involving the positioning evaluation;
(d4) proposals for performance level and benchmarking;
(d5) facilitate the search for sustainability to LiderA officer;
(d6) implementation of solutions (in planning, designing, constructing and operating phases);
(d7) periodic assessment of LiderA positioning, supported the collection of proofs that show it clearly, regarding future certification and improvement suggestions, for example for future management.

how to recognize or make it?
the project must have a good environmental performance that can be verified by existing evidences (documents), and from thereafter carry out:
(c1) contacts with the LiderA team in order to certify and agree on evaluation dates;
(c2) systematization of evidences of the project or enterprise that will be certified;
(c3) verification by an independent party of the performance levels found;
(c4) if performance levels top Class C or higher, attribute Certification / recognition by LiderA brand;
(c5) monitoring.

which certifications exist?
the first LiderA certifications occurred in 2007 and have grown since then, encompassing different types and projects at different stages, including plan and design stages, construction stages and management stages.

how to get further information?
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