Energy Performance Integration in Corporate Real Estate Management processes
Introduction
The Abbreviation EPI-CREM stands for Energy Performance Integration in (public) Corporate Real Estate Management.
EPI-CREM aims to improve energy efficiency and rational use of energy across public building stock in Europe by embedding energy issues in decision making processes within Corporate Real Estate Management (CREM).
With this aim, EPI-CREM contributes to existing CREM-processes and global environmental benefits. EPI-CREM adds value on economic and sustainable grounds for the corporate public building management sector. Until now, most public building organisations don’t pay much attention to energy efficiency in real estate management decision making. One of the reasons is the lack of tools to facilitate integral decision-making. To fill this gap, EPI-CREM provides an approach and a set of tools for building owners and users to facilitate the integration of energy efficiency in Corporate Real Estate Management.
In this brochure the Organisational Approach to Integrate Energy Efficiency in Corporate Real Estate Management is elaborated on.

Real Estate Management processes
The organization or real estate management is different for every organization, but the essential part of it consists of a number of characteristics. In this project a distinction between 4 management fields has been made for Real Estate Management:
1. Portfolio management;
2. Asset management;
3. Property & Maintenance management;
4. Facility management.

In each of these management fields several questions appear concerning the relation with energy performance, such as:
• Has energy saving a place in the strategic Real Estate policy, for example at the moment of developing or hiring new buildings?
• What are the financial structure and frameworks with respect to possible (extra) investments on energy saving?
• Are financial structures or mechanisms an obstacle to integration of energy measures in the Real Estate management?
• Is there financial space for investments; are there financing possibilities?
• Is there any awareness and attention to energy saving at the level of the users of buildings?
• Are there opportunities to match the energy topic to a direct importance for the primary process? (for example comfort improvement, restriction of sickness absenteeism; better indoor climate etc)
• Have possibilities been explored for combination of different kind of measures (maintenance, security, comfort etc.) and for the optimal moment, regarding risk management?

The conclusion is:
the energy performance theme meets all processes in Real Estate Management!
**Integration of Energy performance in CREM**

Because the "Energy Performance" theme meets all processes in Real Estate Management it has to be rooted firmly in all Real Estate processes. It is crucial that all stakeholders concerned with Real Estate, “automatically” take energy performance into account in their activities in research, inspection, consulting, decision-making and executive tasks.

The preceding text indicates that structural changes in organisations are necessary. Change in thinking, attitude and acting to give energy performance a permanent position in real estate processes.

Energy Performance Integration in Real Estate processes implies that in each of these processes it has to be checked out what is necessary for sustainable, final change.

There are many techniques and methods available and suitable for realizing organisational changes. Based on ready existing schemes for implementing final changes, the following model with 9 preconditions for final change was developed. The model exists of 3 main aspects: Willingness, Capability and Action.

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**9 preconditions for Energy Performance Integration in CREM processes**

<table>
<thead>
<tr>
<th>Willingness</th>
<th>Capability</th>
<th>Action</th>
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</thead>
<tbody>
<tr>
<td>Sense of Urgency</td>
<td>+ Shared vision</td>
<td>+ Leadership, Support stakeholders</td>
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Pre-conditions for success
Essential for this approach is that these preconditions work as a kind of chain. If one of the links is missing, in the case of no attention to one of the preconditions, there will be no sustainable change, and no real integration of energy performance.

- ‘Willingness’ has to do with an open attitude to the theme energy performance. That means at first recognizing that energy saving is possible. At second it means admitting that taking energy-saving measures is desirable and necessary. Without “Willingness” there will be no initiative.

- ‘Capability’ of carrying out energy-saving measures. Several company-internal aspects are relevant here, such as staff capacity, company policy, policy objectives, but also knowledge of energy saving practice and possible measures, insight in advantages and financial aspects. Without capability it is not possible to start actions.

- ‘Acting’ is essential for realising plans. Without acting energy performance remains as “wishful thinking”.

These elements have a preconditioned relation to each other, but not necessarily in chronological order. Willingness is a precondition for action; but for example a lack of capability could influence the willingness.

Each of the 3 elements ‘willingness, capacity and acting’ is divided into 3 subthemes. Therefore 9 preconditions have to be dealt with for a sustainable integration of energy performance. In the next scheme these have been worked out in terms of “what is necessary” for each precondition.

<table>
<thead>
<tr>
<th>What is necessary?</th>
<th>WILINGNESS</th>
<th>CAPABILITY</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of urgency / willingness for change</td>
<td>Political/policy decision to take energy performance into account as a permanent point of attention in all processes related to Corporate Real Estate Management.</td>
<td>Skills to work on common goals, from different disciplines and interests.</td>
<td>Integration of energy performance in real estate management will not be realised automatically; but has to be managed and facilitated.</td>
</tr>
<tr>
<td>Shared vision on change and energy-ambitions</td>
<td>Defining ambitions and goals; shared vision on how to aim for these goals.</td>
<td>Workprocesses, functions and responsibilities have to be designed to guarantee the integration of energy performance.</td>
<td>Knowledge and information has to be available and accessible to meet the ambition and targets.</td>
</tr>
<tr>
<td>Leadership and support of stakeholders</td>
<td>“Ambassadors” who show the vision; make others enthusiastic; move people to the required changes in attitude.</td>
<td>Budgets have to be adjusted to changes in investment and exploitation costs; staff and tools have to be available for implementation.</td>
<td>Tools, methods; processes, for measuring and monitoring results; for evaluation and adaptation.</td>
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</table>
Checklist for Energy Performance Integration in CREM

Based on the principle of the 9 preconditions a series of checklists have been developed within the EPI-CREM approach. These checklists provide relevant points of attention for each of the four management processes regarding the integration of energy in CREM. In the example of the checklist below, relevant points are collected for the Portfolio Management process.

### Process Portfolio Management

<table>
<thead>
<tr>
<th>Process elements / Activities</th>
<th>Check</th>
<th>What is necessary? What do we need?</th>
<th>Instrument / tool / approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>In general: check on the 9 preconditions for integration of energy performance</td>
<td></td>
<td>Policy decision to take energy performance into account as a permanent point of attention in all processes related to Portfolio Management.</td>
<td>Policy document; Letter of intent. Check on the 9 preconditions; use and/or adapt the mentioned tools.</td>
</tr>
</tbody>
</table>

### Strategic real estate policy

<table>
<thead>
<tr>
<th></th>
<th>Check</th>
<th>Policy to let the real estate stock and particular buildings meet to a certain energy performance quality.</th>
<th>Explicite targets for Energy Performance; multi-annual plan; budgetplan.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is energy performance one of the criteria in decisions in strategic real estate policy?</td>
<td></td>
<td>Policy to obtain new real estate in stock with a certain energy performance quality, or with the possibility to meet energy performance requirements after acquisition of the real estate. In combination with decision to realize the required energy performance.</td>
<td>Requirements for Energy Performance in the case of developing of buying real estate; part of Program of Demands. Model for consideration measures and investments in the case of upgrading real estate.</td>
</tr>
<tr>
<td>Is energy performance a criterium in the process of buying or developing real estate?</td>
<td></td>
<td>Policy in relation to the energy performance of real estate which will be demolished or sold. Consideration to let buildings with a minimum energy performance to the market, or take the responsibility to renovate.</td>
<td>Consider of minimal energy performance / quality in the case of selling real estate (with the purpose of continuing use of the building).</td>
</tr>
</tbody>
</table>
How to manage organisational change

The “9 preconditions-model” shows that it is necessary to implement several changes in real estate management organisations to realize a sustainable, final integration of the energy-theme.

An important question is how to initiate and manage this process of development and change: where and how to start and with what kind of actions? Development of the integration of Energy Performance can be started from two directions:

1. Development from working processes; “bottom-up” approach;
2. Development from “management”; “top-down” approach.

Between these two principles, various mixes of both approaches are possible.

The start and initiative can be taken everywhere in an organisation. For guarantee on continuity in most cases it is necessary to lift up on to management level. To achieve sustainable integration of Energy Performance (with support from the organisation) a combination of a top-down and bottom-up approach is most successful.

- Top-down: for the overview of the process, for the connection with other interests and goals of the organisation, and for necessary authority.
- Bottom-up: for getting people involved and enthusiastic, and for giving them opportunity to influence the process and results by using their professional knowledge.

Once the initiative is there, organisational embedding can be facilitated by formulating concrete, specific targets and (re)design the organisation to achieve these targets.

Implementing the EPI-CREM approach

In the scheme below a step-by-step approach is shown for the Energy Performance Integration in Real Estate management processes. By following these steps each of the 9 preconditions is taken into account. The steps in the oval field in the top of the scheme concern the organisational integration of energy. Below this field three steps are shown that are taken with the use of the EPI-CREM method and software tool which practically facilitates the integration of energy efficiency in real estate management (data-collection and input of building data in the software, output: scenarios for improving the building quality and energy efficiency). In the bottom section of the scheme the integration of energy efficiency in Real Estate Management is related to the four defined management fields (portfolio management, asset management, property & maintenance management and asset management).

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