EE strategic planning: steps 4, 5, 6
EE strategic planning: steps 4,5 and 6

Step 4: Development of an action plan, methods and criteria for strategic area selection

Prioritisation of the area/areas to be included in the EE strategic plan

- Must be an important area for the users
- Area has a potential to meet the EE target set by the municipality
- Resources (financial and technical capacity) that can enable the implementation of the programme or project must be in place
- Therefore, prioritisation must be done through a systematic and thorough process
EE strategic planning: steps 4, 5 and 6
EE strategic planning: steps 4 - selecting the priority strategic areas

Methodologies for the prioritisation process

Several methodologies can be used for the prioritisation process, some are more complicated than others. However, 2 of the most used are:

- Cost Benefit Analysis (CBA)
- Multi Criteria Analysis (MCA)

Both have advantages and disadvantages

- Accuracy of the results will depend on the reliability of the data collected and used

- Regardless of the methodology used, it is important relevant stakeholders are involved
Cost Benefit Analysis (CBA)

- A tool to evaluate (in monetary terms) benefits against the costs of an intervention/project
- Benefits > than costs → project implementation is justified
- Create a list with all costs and benefits of the intervention/project
- From estimated results, calculate ROI (return on investment) and IRR (internal rate of return), NPV (net present value) and PB (pay back) period
- Use the same currency for the estimations (apples to apples)
EE strategic planning: step 4

Sequential steps in the development of a CBA

- **Step 1**: Establish framework of the analysis
- **Step 2**: Identify the stakeholders
- **Step 3**: Calculate costs and benefits
- **Step 4**: Determine the discount rate
- **Step 5**: Determine the present value
- **Step 6**: Examine the results
- **Step 7**: Do a sensitivity analysis
EE strategic planning: step 4

8 steps to conduct a Multi Criteria Analysis (MCA)

1. Establish the decision context
2. Identify options
3. Establish criteria
4. Scoring
5. Weighting
6. Combine scores and weights
7. Examine results
8. Do sensitivity analysis
EE strategic planning: step 5 - barrier analysis and solutions

Four-step process

Step 1
• Identification and categorization of the barriers

Step 2
• Identification of the reasons behind the barriers

Step 3
• Prioritisation of the barriers to be addressed

Step 4
• Identification and design of policy measures to remove the prioritised barriers

Method
- Personal interview
- Mailed questionnaires
- Telephone interview
- Consultation workshop
### EE strategic planning: step 5 - categories and sub-categories of barriers

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-category</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic and Financial</strong></td>
<td>• Lack of budgetary autonomy on a municipality level</td>
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<td></td>
<td>• Financing restrictions, e.g. some municipalities might have caps on the amount of debt they can assume</td>
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<td></td>
<td>• Low global and/or local energy/electricity prices</td>
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<td></td>
<td>• High upfront capital expenditure (CAPEX)</td>
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<td></td>
<td>• High cost of capital (high interest rate)</td>
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<td></td>
<td>• Lack of access to financing</td>
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<td></td>
<td>• Long payback times (RoI)</td>
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<td></td>
<td>• Higher transaction costs for public sector projects</td>
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<tr>
<td><strong>Market structure</strong></td>
<td>• Few suppliers (oligopoly) of technologies/services or one single supplier (monopoly)</td>
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<td></td>
<td>• Limited municipal incentives to save energy and try new approaches</td>
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<tr>
<td><strong>Legal and Regulatory</strong></td>
<td>• Ineffective or lack of energy targets (e.g. energy saving is not a priority)</td>
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<td></td>
<td>• Ineffective or lack of regulatory frameworks (e.g. Lack of national policy on energy efficiency, law on energy efficiency or a section on energy)</td>
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<td></td>
<td>• Subsidies to existing technologies/services</td>
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<td></td>
<td>• Highly controlled/regulated markets</td>
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<td></td>
<td>• Intricate and/or inefficient bureaucratic processes</td>
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<tr>
<td></td>
<td>• Political instability</td>
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<tr>
<td><strong>Institutional, inter-organizational and administrative</strong></td>
<td>• Lack of a designated department, either in line ministries or in branch ministries, (e.g. environmental or energy department)</td>
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<td></td>
<td>• Lack of collaboration among institutions to bring projects forward (e.g. urban planning and energy department)</td>
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<td></td>
<td>• Lack of training at all levels; particularly of technical in-house competence to assess and develop EE projects</td>
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<tr>
<td></td>
<td>• Lack of managerial skills and resources to develop EE projects</td>
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<tr>
<td></td>
<td>• Weak monitoring and enforcement mechanisms</td>
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<tr>
<td><strong>Awareness, information, and related social barriers</strong></td>
<td>• Asymmetric information on energy efficiency potential</td>
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<td></td>
<td>• Lack or distorted information on the performance of EE technologies</td>
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<tr>
<td></td>
<td>• Lack or distorted information on the multiple benefits of EE technologies (e.g. improved energy security and economic benefits)</td>
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<td></td>
<td>• Lack of environmental awareness</td>
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<td></td>
<td>• Aversion to new solutions and technologies</td>
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<td></td>
<td>• Lack of technical capacity to implement, operate and maintain new EE technologies</td>
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<tr>
<td><strong>Technological barriers</strong></td>
<td>• Incompatibility between new and existing technology solutions</td>
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<td></td>
<td>• Technical/Performance risk of the technology</td>
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<td></td>
<td>• Unpredictability of performance and respective energy savings</td>
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<td></td>
<td>• Higher maintenance requirements</td>
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</tbody>
</table>
## EE strategic planning: step 5  Policy measures to overcome barriers to EE

<table>
<thead>
<tr>
<th>Category</th>
<th>Policy measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial measures</strong></td>
<td>• Investment subsidies&lt;br&gt;• Grants and loans&lt;br&gt;• Loan guaranties&lt;br&gt;• Taxation and other fiscal benefits&lt;br&gt;• Use charges (ex. congestion charges)</td>
</tr>
<tr>
<td><strong>Non-financial measures</strong></td>
<td>• Mandate to provide electricity from energy-efficient technologies&lt;br&gt;• Disincentivizing the use of energy from fossil fuels&lt;br&gt;• Information and awareness-raising campaigns&lt;br&gt;• Minimum energy performance standards and labelling technologies&lt;br&gt;• Sustainable public procurement&lt;br&gt;• Promoting research and development&lt;br&gt;• Training and capacity building&lt;br&gt;• Promoting public-private partnership</td>
</tr>
</tbody>
</table>
Step 6: MRV and strategy formulation

MRV (Measuring, Reporting and Verification) system's main advantages

- Allows monitoring of implementation progress and impacts associated with a given mitigation programme or project
- The reporting component makes it possible to provide information to the corresponding authorities and other stakeholders in a transparent way
- It ensures transparency that the results of the programme or project being implemented are properly quantified and reported
Strategy formulation

- Drafting the strategy by a core expert group
- Reviewing and commenting by stakeholders
- Revision and validation by relevant government agencies
- Endorsement by high-level government official on the issue
- Launch of the strategy
- Detailed action plan to implement the strategy, including a portfolio of projects
Components of Successful Strategies

• Leadership in Recognizing Energy Efficiency as a Priority Resource
• Legally Binding Energy Saving Targets
  – Energy Efficiency Targets by Utility
  – Energy Efficiency Resource Standards
• Financing and Institutional Structures for Energy Efficiency
  – Long-term Funding
  – Responsible Agency with Well-defined Mandate
  – Specified Input Process and Review Cycles for Regulations
• Comprehensive Set of Efficiency Programs
  – Market Transformation
  – Proactive programme delivery
• Establishing of monitoring and verification protocols

Example of national energy efficiency strategy

- The Energy Efficiency Strategy: The Energy Efficiency Opportunity in the UK (2012), issued by the UK Department of Energy and Climate Change

Contents:
- Ministerial Foreword
- **The Energy Efficiency Opportunity in the UK**
  - Understanding energy efficiency
  - The energy efficiency opportunity
  - Energy efficiency potential in the UK economy
  - The benefits of energy efficiency
  - Our ambition for improving energy efficiency
  - The barriers to deploying energy efficiency
  - Maximising the potential of existing schemes
  - An energy efficient future

Kenya's Ministry of Energy has launched its National Strategy for Energy Efficiency and Conservation Strategy (NEECS) in September 2020 ([https://www.youtube.com/watch?v=qqvMFvSY0Fs](https://www.youtube.com/watch?v=qqvMFvSY0Fs)) and now formulating an Implementation Plan for the NEECS
Typical contents in a national strategy

• Objectives
• Background/context
• Strategies for different sectors
• Cross-cutting issues
• Risk analysis
• Process of strategy formulation, especially the stakeholder consultation, the core team prepared the strategy.
• Monitoring and verification, future review process
• Unlike a research report, the strategy needs to focus on what to do, be brief
The cycle of strategy making and implementation

- A steering committee, a technical committee, a coordinator, and the stakeholders
- The consultation process need to engage key stakeholders, including relevant line ministries, the local governments, as well as industrial associations and civil society, as well as donors
- Often the strategies need to be backed up with detailed action plans

https://williepietersen.com/strategic-learning/
https://c2e2.unepdtu.org/kms_object/upscaling-energy-efficiency-in-municipalities-sourcebook-on-project-bundling/
Thank you for your attention

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