GOA2.3 DEVELOPMENT AND IMPLEMENTATION OF CAPACITY BUILDING SCHEMES

Act Now O 2.3: combined document assessment concept, baseline reports and capacity building

ACTION FOR ENERGY EFFICIENCY IN BALTIC CITIES
ACT NOW!
Interreg Baltic Sea Region
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND
EUSBSR EU STRATEGY FOR THE BALTIC SEA REGION

Contents

1. GENERAL INTRODCUTION AND AIM OF THE GoA2.3 5
2. SUMMARY OF METHOD USED 7
3. CAPACITY SELF- ASSESMENT TOOL 7
3.1 Application of SWOT analysis for performance improvement 7
3.2 Application of SWOT analysis for performance improvement 10
3.2.1 Capacity evaluation criteria 11
4. BASE LINE REPORTS ON NEEDS FOR CAPACITY BUILDNING, SWOT AND INDIVIDUAL CAPACITY BUILDING SCHEMES FOR EACH MUNICIPALITY 16
4.a Baseline report O2.1 for municipalities 16
4.b SWOT Analysis 17
4.c Capacity Building Schemes (CBS) 17
4.1 Magistrate of the City of Bremerhaven 18
4.1.1 O2.1 Output: Bremerhaven 18
4.1.2 SWOT Analysis for Bremerhaven 20
4.1.3 Capacity Building Scheme Template for Bremerhaven 21
4.2 Gulbene Municipality 22
4.2.1 O2.1 Output: Gulbene 22
4.2.2 SWOT Analysis for Gulbene 23
4.2.3 Capacity Building Scheme Template for Gulbene 26
4.3 Municipality of Gdynia 30
4.3.1 O2.1 output: Gdynia 30
4.3.2 SWOT Analysis for Gdynia 31
4.3.3 Capacity Building Scheme Template for Gdynia 32
4.4 Sievi Municipality (In cooperation with Association of Ylivieska Region) 33
4.4.1 O2.1 output: Sievi 33
4.4.2 SWOT Analysis for Sievi 34
4.4.3 Capacity Building Scheme Template for Sievi 35
4.5 Silute District Municipality Administration 37
4.5.1 O2.1 output: Silute 37
4.5.2 SWOT Analysis for Silute 38
4.5.3 Capacity Building Scheme Template for Silute 39

4.6 Elva Municipality 41
4.6.1 O2.1 output: Elva 41
4.6.2 SWOT Analysis for Elva 42
4.6.3 Capacity Building Scheme Template for Elva 43
4.7 Sonderborg Municipality 45
4.7.1 O2.1 output: Sonderborg 45
4.7.2 SWOT Analysis for Sonderborg 46
4.7.3 Capacity Building Scheme Template for Sonderborg 47
4.8 Mönsterås Municipality (Energy Agency for Southeast Sweden) 48
4.8.1 O2.1 output: Mönsterås 48
4.8.2 SWOT Analysis for Mönsterås 49
4.8.3 Capacity Building Scheme Template for Mönsterås 50
4.9 Municipality of Kaliningrad (associated Partner) 53
4.9.1 O2.1 output: Kaliningrad 53
4.9.2 SWOT Analysis for Kaliningrad 55
4.9.3 Capacity Building Scheme Template for Kaliningrad 56
5. APPLICATION OF THE CAPACITY SELF-ASSESSMENT TOOL ON THE FIELD AND CRITICALITIES IN THE IMPLEMENTATION 58
6. CONCLUSION AND RECOMMENDATION 60
REFERENCES 61

1. GENERAL INTRODCUTION AND AIM OF THE GoA2.3

The aim of this group of activities is the development of customized capacity building schemes for each participating municipality. This means that as a first step an assessment of the starting points for the capacity building will be carried out by each national expert partner in cooperation with the related municipality. This assessment will be based on the results of the results of group of activities 2.1 and carried out by using the methodology which has been developed in group of activities 2.2. This will lead to a detailed stocktaking which covers all aspects and procedures related to energy consumption, energy management and planning of energy efficiency measures in each municipality.

The results will be described in a baseline report in form of a SWOT analysis which will define the most relevant points of intervention to enhance the capacities in each municipality. At the end there will be a clear profile of needs for capacity building which will cover increasing competences as well as the enhancement of the used tools for the energy management. Based on this profile for each partner municipality a customized capacity building scheme will be set up.

The activities are based on a methodology which is an output of a transnational cooperation process carried out by all coaching expert partners in groups of activity 2.1 and 2.2.

The transnational relevance is given since the methodology as well as the developed approach of customized capacity building schemes shall be transferable to municipalities in the whole programme area. For this reason, local experiences in the participating municipalities from all BSR member states and Russia are reported as feed- back to the transnational team of expert partners for the further development of the approach and the development of tools for transferring the results to interested local authorities outside the project partnership. In this sense the group of activities also includes as an output a self-assessment tool for needs in capacity building on energy management and increase of energy efficiency in municipal facilities.

The work with GoA2.3 was developed by Energy Agency for Southeast Sweden (WP2 and GoA2.3 leader) and Riga Technical University (GoA 2.1 and 2.2 leader) in cooperation with the Act Now coaching partners.

The output of this group of activities consists of three modules.

1) Baseline reports on needs for capacity building and a SWOT analysis for each participating municipality. The output is based on the methodology developed in GoA2.2
2) Customized capacity building schemes for these municipalities and
3) A self-assessment tool for checking the needs on capacity building for municipalities outside the project partnership.

The connection among the GoA2.1, GoA2.2 and GoA2.3 towards the definition of the individual capacity building schemes is reported in the scheme of figure 1.1.

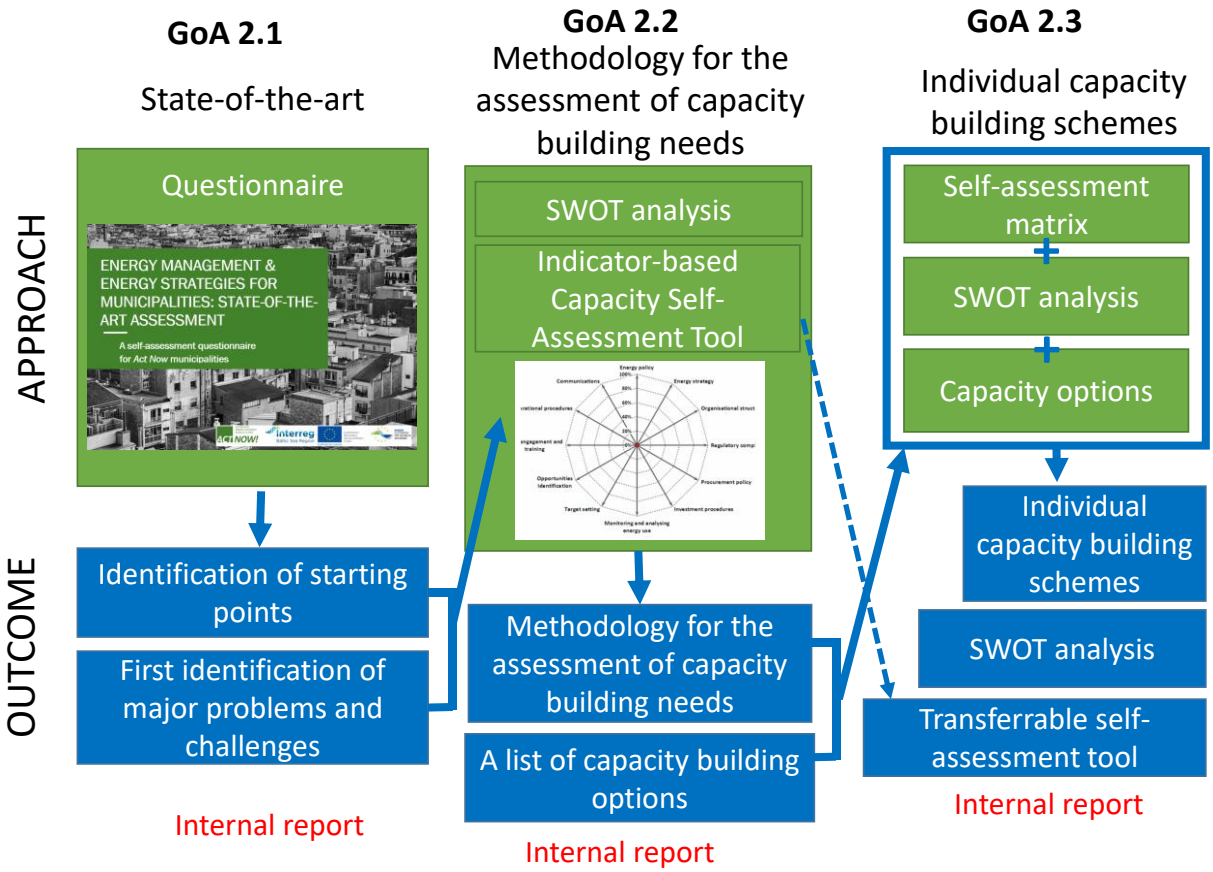


Figure 1. Connection among the GoA2.1, GoA2.2 and GoA2.3.

2. SUMMARY OF METHOD USED

The methodology, well described within the O2.2 of ACtNOW project, is based onto the 4 parts in-depth described:

- definition of a customized questionnaire for the identification of needs and gaps within the field of Energy Management System (EnMs) and Energy Efficiency (EE) (output from GoA2.1);
- finalization of a SWOT Analysis for a clear identification of key priorities within the implementation of EnMs and EE capacity building schemes;
- definition of a quantitative self-assessment tool to be merged with the SWOT analysis outcomes for the definition of the strategic plan for capacity building schemes in EnMs and EE in municipality;
- definition and implementation of customized strategies and schemes for capacity building improvement.

Within the assessment methodology a specific focus was addressed to the building stocks of private-owners and housing association that rapresent key groups within the development of an overall Energy Management System (EnMs) and Energy Efficiency (EE) strategies at municipal level. Within this process the model proposed by the project REFURB [http://www.go-refurb.eu/publications/] in terms of “Customer journey” model. Within this approach is propose an 11 steps methodology on how create the proper engagement of the private building sector within the overall EE improvement strategy of the municipality.

3. CAPACITY SELF- ASSESMENT TOOL

The self-assessment tool has been implemented in an excel sheet taking into account an initial SWOT analysis and a multicriteria analysis within the context of EnMs and EE at municipal level.

3.1 Application of SWOT analysis for performance improvement

In order to reach significant capacity improvements in municipalities within the context of EnMs and EE, first, we must sufficiently describe the gap between each municipality’s current energy efficiency capacity and the desired capacity/performance. The **definition of this desired performance** should be based on two pillars: (1) the review of the organisation’s strategic plans and the needs and context assessment, as well as, (2) evaluation of performance gaps. **Strengths, Weaknesses, Opportunities and Threats (SWOT)** analysis is a commonly used approach to assess the current and desired performance gaps. After the implementation of performance and needs assessment, we may select improvement measures, which in current case are defined as various capacity building strategies. [Gerson, 2007, p23-38].

The use of a structured approach, such as SWOT analysis, for the description of the desired performance and performance gaps is suggested because it improves the comparability, transferability of the results, and allows to define more specific and measurable objectives. [Gerson, 2007]

The input data for SWOT analysis includes output from strategic plans, from needs assessment and the state of various collected performance measures. The SWOT analysis may be enhanced

by adding measured data (interval or ratio scales, e.g. in the form of questionnaire replies), in which case factors may be related and compared [Gerson, 2007, p39].

SWOT analysis provides a context for performance improvement and essential information for improved decision-making [Gerson, 2007, p38]. The output of SWOT analysis will provide significant insight for successful strategy formulation [Kurtilla et al., 2000, p2].

SWOT analysis is carried out through a less formal „brainstorming" process by individuals, teams, or organizations. A brainstorming session provides both a powerful learning experience to the stakeholders as well as increases their awareness of the potential issues for capacity building [Pesonen and Horn, 2014].

The main steps for SWOT analysis application [Srivastava et al., 2005, Gerson, 2007, Pesonen and Horn, 2014] are as follows:

The main steps for SWOT analysis application [Srivastava et al., 2005, Gerson, 2007, Pesonen and Horn, 2014] are as follows:

1. Identification of relevant stakeholders (internal and external) – they should represent various business perspectives,
2. Identification of the Strengths, Weaknesses, Opportunities, Threats (SWOT) through collaboration with partners and other stakeholders, through a focus group or by survey.
3. Categorization of SWOT factors into a SWOT matrix.
4. Identification of associated supporting data (hard data, soft data, interval and ratio scales of measurement),
5. Prioritization of factors by assessing their significance.

The SWOT analysis identifies both situation-related and operational parameters that are substantial for defining an objective (or objectives) for a performance improvement initiative [Gerson, 2007]. These parameters are referred to as **strategic factors** when summarized within SWOT analysis [Kurtilla et al., 2000].

Factors that are enhancing the desired performance are called Strengths, **but those inhibiting it are identified as Weaknesses**. Identification of the **Strengths and Weaknesses defined the internal indicators**. The Strengths characterize system's own resources and capabilities. For a business initiative Strengths would include employee knowledge, reliable suppliers, new technologies, for a municipality case the Strengths category would include the areas in which the municipality is more effective and efficient than others or in respect to the level requested by Standard. Sequentially, system's Weaknesses include its lack of capabilities and features. Determination of the Weaknesses for each of the municipalities will lead to resolution of potential future problems regarding their long-term strategies and plans. [Polat et al., 2017, Gerson, 2007]

The analysis also considers external conditions that have impact on the desired performance (external analysis). Other sources also characterize the internal factors as controllable and external ones – as non-controllable factors. **External enhancing factors are classified as Opportunities, while hindering factors are defined as Threats.** Opportunities include external possibilities that a municipality might pursue or exploit for benefit, while Threats could potentially reduce the municipality's performance. Threats for a business initiative would be new competitors, employee recruitment, limited raw materials, similarly for a municipality case Threats would be represented as change in legislation, requirements, lack of energy efficiency specialists in the region. [Reißmann et al., 2018, Gerson, 2007, Polat et al., 2017].

The assessed internal and external factors are summarized in a SWOT matrix (see Table 1).

Table 1. Generic SWOT analysis matrix

	Enhancing factors	**Hindering factors**
	Strengths	Weaknesses
Internal factors	1. 2. ...	1. 2. ...
	Opportunities	Threats
External factors	1. 2. ...	1. 2. ...

Thought SWOT analysis is a very useful tool, researchers have noted its lack mostly on identifying the SWOT factor groups and not defining groups with most impact on successful strategy implementation, as well as, lack of analytical determination of factor importance [Kurtilla et al., 2000]. Therefore, **a hybrid SWOT-AHP** (Analytic Hierarchy Process) method was introduced by Kurtilla et al. (2000). This method involves integration of a decision analysis method to complement SWOT with additional quantitative information and prioritize the factors.

Analytic Hierarchy Process (AHP) is a multi-criteria decision-making method intended for complex problem solving [Polat et al., 2017]. AHP provides a measurement of the relative importance of the identified factors accordingly to stakeholder's point of view [Etongo et al.,2018].

Thus, in order to provide more **in-depth analytic approach** to municipality SWOT analysis, the presented methodology includes the implementation of SWOT-AHP analysis according to these three main steps [Srivastava et al., 2005, Etongo et al., 2018]:

STEP1. Implementation of SWOT analysis as described in previous section, including identification of key factors that influence the decision (typically performed by participants or stakeholders). It is recommended that this identification should focus on up to ten most significant factors within each group, because large number of factors in each group would lead to more complex and a time-consuming pair-wise comparisons.

STEP2. Implementation of a pair-wise comparison of the identified factors within each SWOT group. The comparison process is led by two main questions – which factor is more important and by how much. A Likert scale (1-9) is applied for the separate pair-wise comparison of all factors. Using a provided Excel tool, a priority value (sub-factors relative local importance) is computed for each factor using the Eigenvalue method and the highest ranking factors are further analysed.

STEP3. The pair-wise comparison method is applied amongst the four SWOT groups. The four most important factors that were selected for representation of the individual groups (Step 2) are mutually compared. A scaling factor is computed for each group of factors, and together with their local priority values, they are used to calculate the overall priority.

For an in-depth understanding of the AHP please look the example in the ACTNOW O2.2.

3.2 Application of SWOT analysis for performance improvement

The proposed capacity self-assessment methodology follows guidelines presented in [Kay et al., 2004]. It consists of five strategic phases of capacity development.

1. Assessment of the present capacity ->Where we are now?
2. Definition of the desired state/ future vision ->What do we want to achieve?
3. Comparison of the present situation and future desired state, identification of capacity gaps, planning strategies and actions to fill these gaps and achieve desired goals ->How do we get there?
4. Implementation of capacity building measures ->What actions do we take?
5. Monitoring and evaluation to feed back experiences into the planning phase ->How do we stay there?

Based on the five steps described above, a schematic representation of the methodology for capacity self-assessment is given in Figure 2.

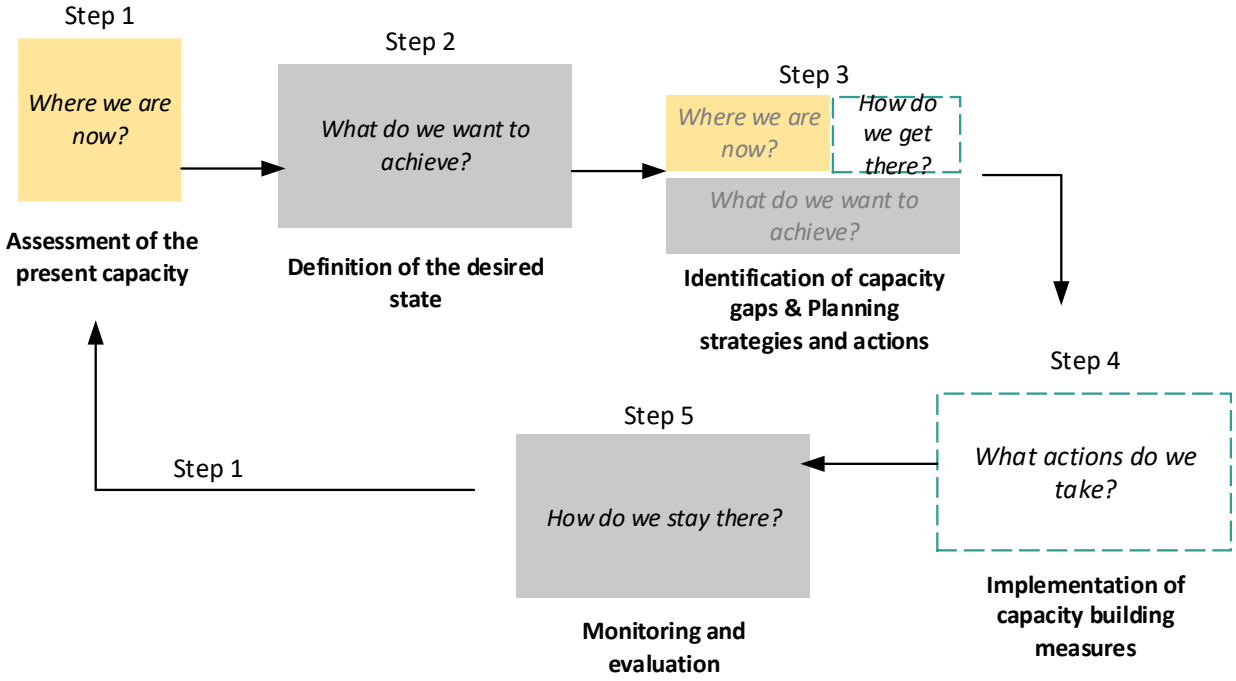
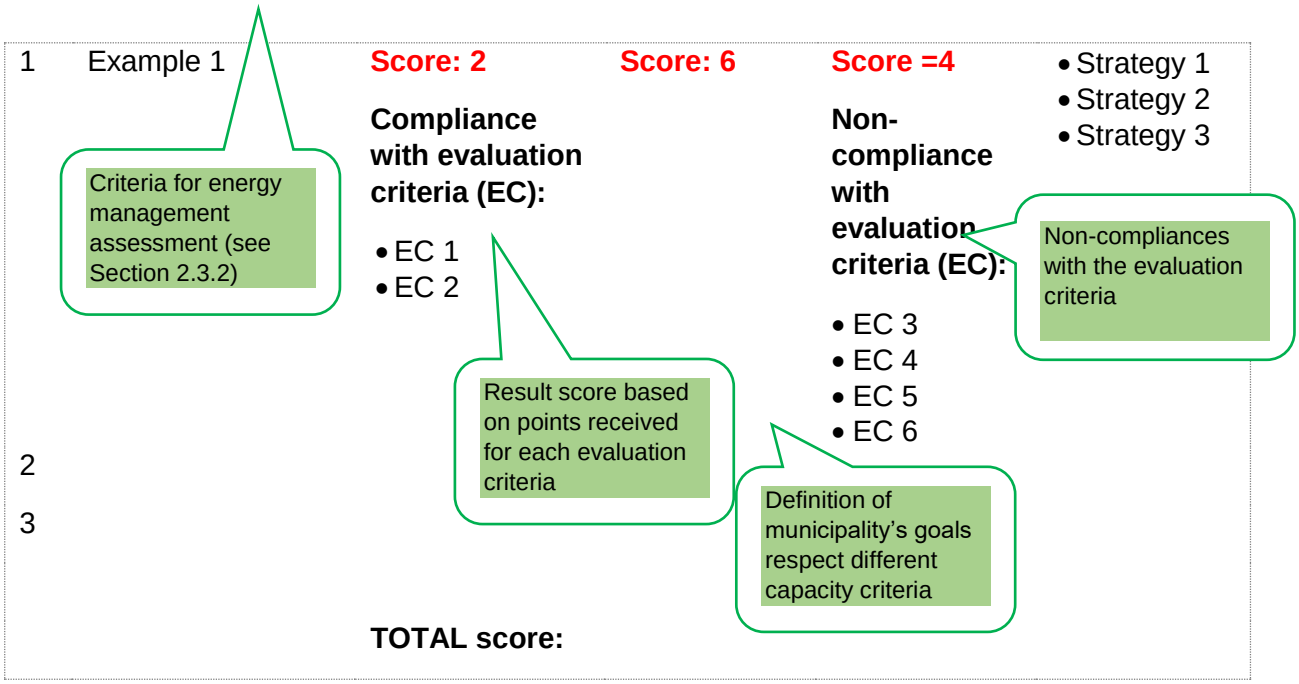


Figure 2. Five steps of capacity building process.

Results of the self-assessment are summarized in a table describing the existing and the possible capacity under each evaluation criteria and merging the estimated capacity gap with possible capacity building schemes, see Table 2 below.

Table 2. Capacity assessment matrix for a municipality (adapted from [UNDP, 1997]).

No	Capacity evaluation field	Existing capacity	Possible future capacity / Max score	Estimated capacity gap	Possible suggested strategies



The self-assessment should use attached Excel-based tool "Energy management capacity self-assessment tool". The tool is developed considering requirements for developing effective systems and processes in organizations to improve its energy performance according to the ISO 500001 energy management standard. Within the developed tool the role of home-owners and housing association towards the way to motivate home-owners and how municipality and other stakeholders on realizing their renovation project has an emphasis. In specific the "Customer Journey" approach from the REFURB project is proposed to define the identification of the capacity evaluation criteria as proposed in the section 2.3.3 of the O2.2.

3.2.1 Capacity evaluation criteria

The capacity evaluation criteria are grouped under six macro-dimensions as shown in Figure 3.

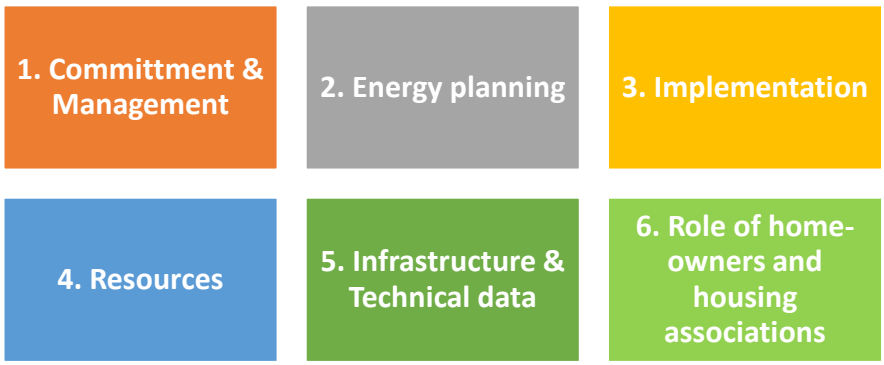


Figure 3. Six macro-dimensions for capacity evaluation

Each macro-dimension contains a number of criteria to evaluate the existing capacity. Capacity evaluation criteria considered under each macro-dimension are in depth reported in the O2.2 report of Actnow.

Evaluation of the existing capacity based on the set of criteria under the five macro-dimensions is performed using an Excel-based tool as presented in Figure 4.

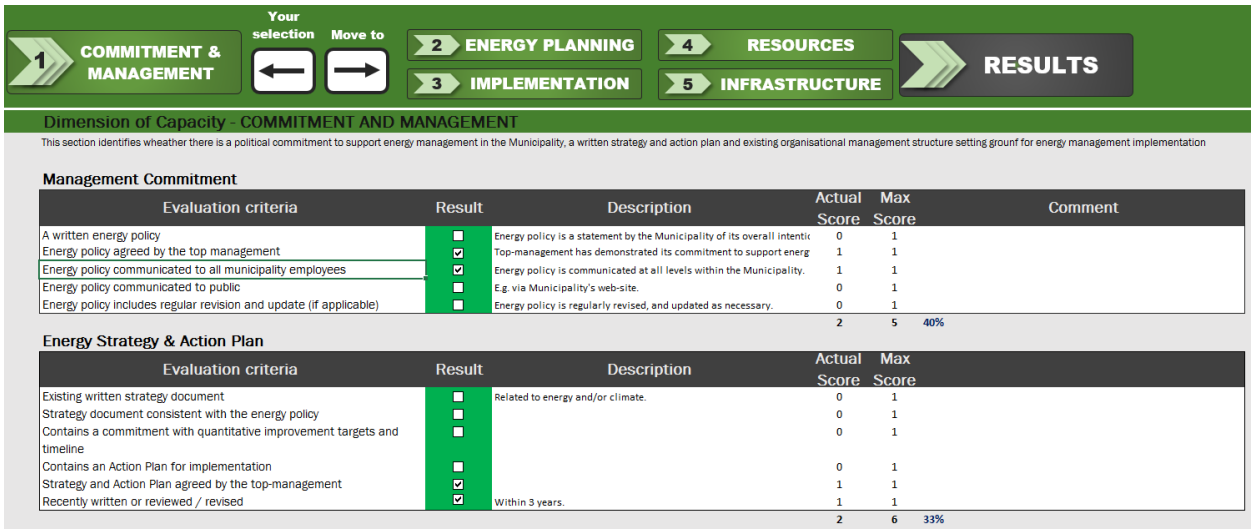


Figure 4. Excel-based tool for energy management capacity self-assessment

In the Excel tool under each of the five macro-dimensions a set of criteria for capacity assessment is given. The criteria are grouped under several micro-dimensions. The municipality assesses its capacity based on the given criteria. If the municipality fulfils the criteria, tick the box ☒, if not, leave the box empty ☐. For each positive answer, the municipality receives one point. The total actual score is the sum of positive answers. The total maximum score is the sum of evaluation criteria under the respective capacity field as described in Table 3.

Table 3. Self-assessment tool

Macro-dimension	Evaluation criteria	Result	Score	Max Score
1.Commitment & Management	2.1.1. A written energy policy	☒ = 1 point	Score = SUM of ☒ answers = 1 point	Max score = SUM of evaluation criteria = 5 points
	2.1.2. Energy policy agreed by the top management	☐ = 0 point		
	2.1.3. Energy policy communicated to public	☐ = 0 point		
	2.1.4. …	…		
	2.1.5. …	…		

Results are presented from each micro-dimension as shown in Figure 5 using a radar chart.

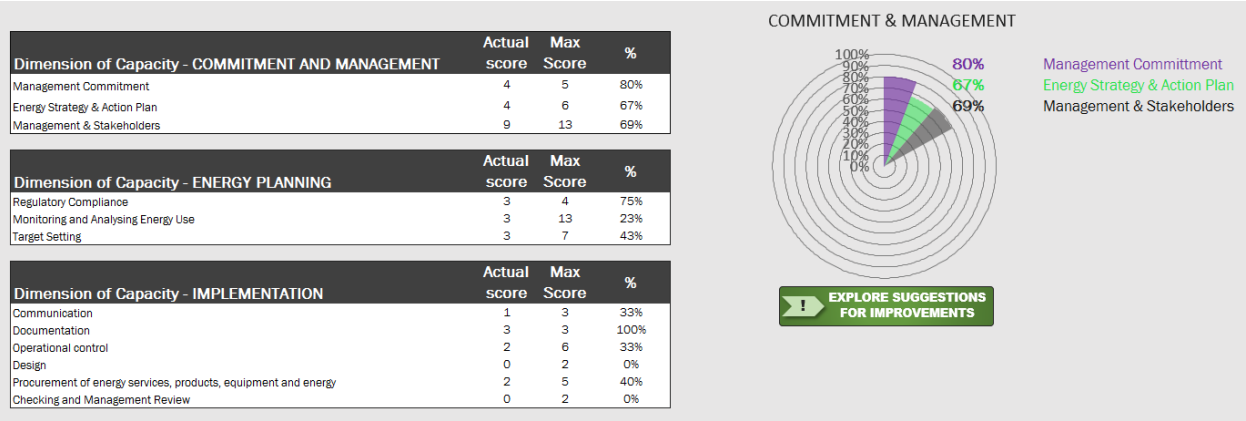
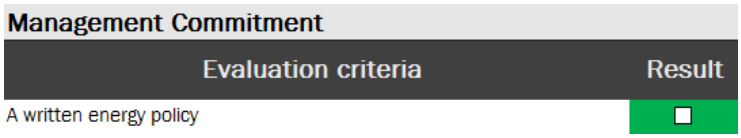


Figure 5. An example of visual representation of self-assessment macro-dimension "Commitment & Management"

Following the user can explore capacity building suggestions based on answers delivered for each evaluation criteria. The tool automatically links "No" answers (the box is empty ☐) with suggestions for improvements. An Example is given below.

The user has left empty the box respective evaluation of existing energy policy in the municipality:



In the "Results" section by clicking "Explore suggestions for improvements" the user will be brought to the section "Recommended capacity building":

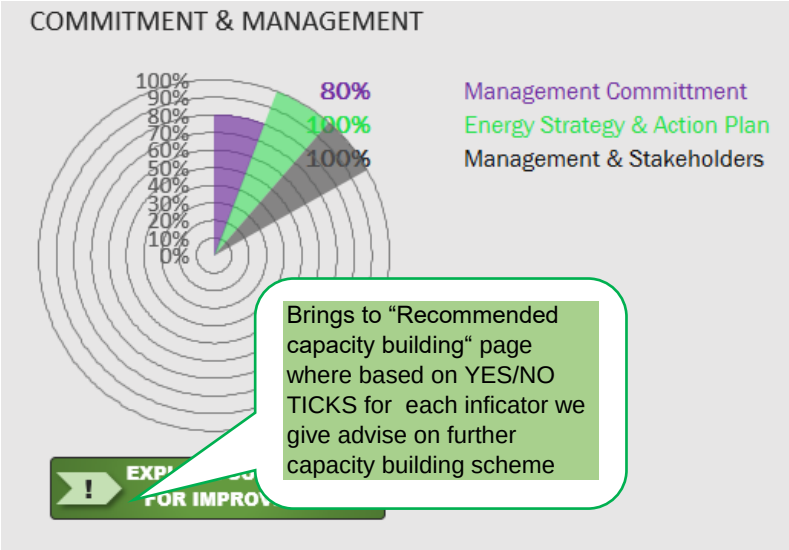
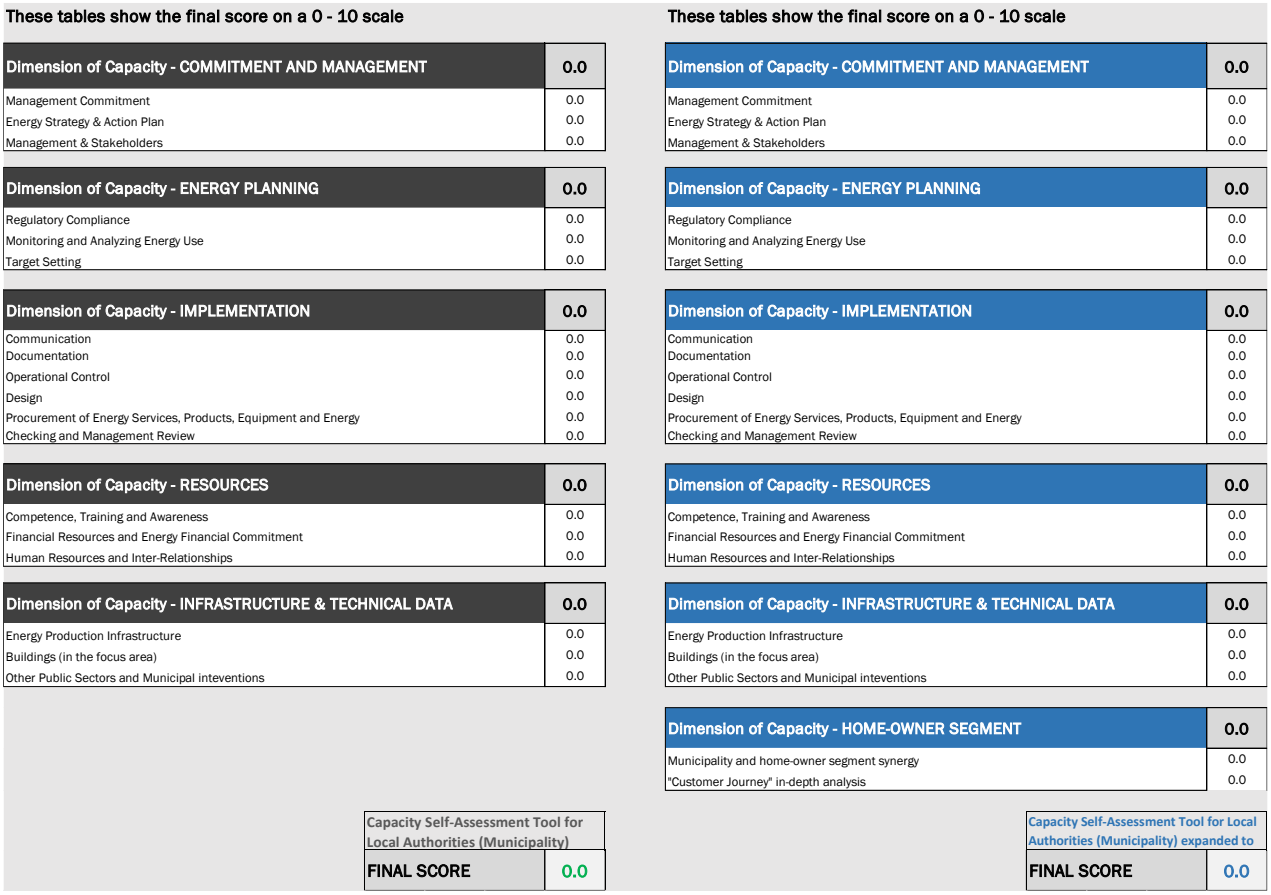


Figure 6. Result's visualization

The final results presented can be considered as "normalized" results on a scale 0-1 (or 0-100%) supposing at this stage equal weight of each criteria (e.g. Management Commitment, Energy Strategy and Action plan, Management and stakehodelrers. etc…). Different weight can further assigned within the context of discussion with the working group.

In order to better understand the role of home-owners and housing association the tool is proposing two types of final score namely with and without the inclusion of the dedicated dimension 6. In this way those municipality with specific focus on such a segment could better established the potential gaps and thus properly address capacity building schemes (see Figure 7).



These tables show the final score on a 0 - 10 scale

Dimension of Capacity - COMMITMENT AND MANAGEMENT	0.0
Management Commitment	0.0
Energy Strategy & Action Plan	0.0
Management & Stakeholders	0.0

Dimension of Capacity - ENERGY PLANNING	0.0
Regulatory Compliance	0.0
Monitoring and Analyzing Energy Use	0.0
Target Setting	0.0

Dimension of Capacity - IMPLEMENTATION	0.0
Communication	0.0
Documentation	0.0
Operational Control	0.0
Design	0.0
Procurement of Energy Services, Products, Equipment and Energy	0.0
Checking and Management Review	0.0

Dimension of Capacity - RESOURCES	0.0
Competence, Training and Awareness	0.0
Financial Resources and Energy Financial Commitment	0.0
Human Resources and Inter-Relationships	0.0

Dimension of Capacity - INFRASTRUCTURE & TECHNICAL DATA	0.0
Energy Production Infrastructure	0.0
Buildings (in the focus area)	0.0
Other Public Sectors and Municipal inteventions	0.0

Capacity Self-Assessment Tool for Local Authorities (Municipality)	
FINAL SCORE	0.0

These tables show the final score on a 0 - 10 scale

Dimension of Capacity - COMMITMENT AND MANAGEMENT	0.0
Management Commitment	0.0
Energy Strategy & Action Plan	0.0
Management & Stakeholders	0.0

Dimension of Capacity - ENERGY PLANNING	0.0
Regulatory Compliance	0.0
Monitoring and Analyzing Energy Use	0.0
Target Setting	0.0

Dimension of Capacity - IMPLEMENTATION	0.0
Communication	0.0
Documentation	0.0
Operational Control	0.0
Design	0.0
Procurement of Energy Services, Products, Equipment and Energy	0.0
Checking and Management Review	0.0

Dimension of Capacity - RESOURCES	0.0
Competence, Training and Awareness	0.0
Financial Resources and Energy Financial Commitment	0.0
Human Resources and Inter-Relationships	0.0

Dimension of Capacity - INFRASTRUCTURE & TECHNICAL DATA	0.0
Energy Production Infrastructure	0.0
Buildings (in the focus area)	0.0
Other Public Sectors and Municipal inteventions	0.0

Dimension of Capacity - HOME-OWNER SEGMENT	0.0
Municipality and home-owner segment synergy	0.0
"Customer Journey" in-depth analysis	0.0

Capacity Self-Assessment Tool for Local Authorities (Municipality) expanded to	
FINAL SCORE	0.0

Figure 7 Final scores result's visualization

The implemented excel tool is also reporting automatically potential capacity building schemes (CBSs) on the identified gaps from the self-assessment tool like reported in table 4.

Management Commitment					
Evaluation criteria	**Fulfill**	**Suggested capacity building scheme**	**Description**	**Responsible for the activity**	**For further reading**
A written energy policy for the identified building focus areas in the Municipality	NO	*Develop Energy Policy.*	Energy Policy is a statement by the municipality of its overall intention to improve energy performance. Energy Policy is formally expressed by top-management of the municipality and provides a framework for setting energy and/or climate targets and actions. Energy Policy is a mandatory requirement of the ISO 50001 Energy management standard.	For the development of the Energy Policy – energy manager or leader of the local energy management working group in close collaboration with the top management. For signing the Energy Policy – Mayor or another top management representative with signature rights.	Example of an energy policy formulation http://www.iwjs.co.uk/wp-content/uploads/2015/10/Energy-Policy.pdf
Energy Policy approved by the top management (e.g. Mayor, city council, PPP)	NO	*Approve Energy Policy by the municipality Council.*	A signed Energy Policy demonstrates top management's commitment to support EnMS and to continually improve energy performance.	For explaining top management the need for Energy Policy – energy manager, local energy management working group or management representative responsible for energy management.	N.a.
Energy Policy communicated to all municipality employees	NO	*Document and communicate Energy Policy to municipality employees at all levels.*	Communication can be done in different ways e.g. during the annual general meetings, division meetings, by ensuring access to paper copies/ electronic version, using municipality's website etc. You can keep your municipality's Energy Policy in a visible place in the administration building for all employees and visitors.	Energy manager in collaboration with the top management.	N.a.
Energy policy communicated to external stakeholders (e.g. business-sector)	NO	*Communicate Energy Policy to external stakeholders.*	It is recommended that the municipality communicates its Energy Policy not only internally among employees but also externally with citizens, stakeholders and different interest groups. This can be done by publishing the Energy Policy (or an announcement) in local media, municipality's official website and placing the document in a visible place in the administration building.	Public relations department.	Example of Daugavpils city (2nd largest city in Latvia by population) https://old.daugavpils.lv/lv/639 (only in Latvian)
Energy Policy communicated to public	NO	*Communicate Energy Policy to public.*	It is recommended that the municipality communicates its Energy Policy not only internally among employees but also externally with citizens, stakeholders and different interest groups. This can be done by publishing the Energy Policy (or an announcement) in local media, municipality's official website and placing the document in a visible place in the administration building.	Public relations department.	N.a.
Energy Policy includes regular revision and update (if applicable)	NO	*Revise and update Energy Policy.*	Energy Policy should be updated in response to major changes such as energy performance, EnMS (e.g. expansion of boarders), targets, etc.	For keeping-up with the topicality of Energy Policy – energy manager or leader of the local energy management working group in close collaboration with the top-management. For signing the Energy Policy – Mayor or another top management representative with signature rights.	N.a.

Table 4. Example of automatically potential capacity building schemes (CBSs)

All the municipalities Capacity self-assessment tools are presented separately in a file belonging to the report O2.3.

4. BASE LINE REPORTS ON NEEDS FOR CAPACITY BUILDNING, SWOT AND INDIVIDUAL CAPACITY BUILDING SCHEMES FOR EACH MUNICIPALITY

4.a Baseline report O2.1 for municipalities

The internal report O2.1 is the summary of the survey specifically made for Act Now project municipalities to be answered in collaboration with their coaching partners.

The aim of the survey is to:

(i) collect basic information about the energy management practices and energy strategies in the participating municipalities (GoA 2.1 “Definition of the starting point of customized capacity building in participating municipalities”), and;

(ii) identify key stakeholders for establishing local energy efficiency work groups (LEEG) (GoA 3.1 ”Consultation of local energy efficiency groups”).

The information will be used to develop the internal progress report concerning the identification of starting points for the individual capacity building schemes in the participating municipalities and for the finalization of GoA 2.2 “Development and testing evaluation methodology” and A 2.3 “Development and implementation of customized capacity building schemes”. The LEEG will serve as a connection and discussion group for forming background for capacity building schemes and catalyze their implementation.

The questionnaire was developed by Riga Technical University (GoA 2.1 leader) and Project Zero (GoA 3.1 leader) in cooperation with the Act Now coaching partners.

The main structure of the questionnaire was defined based on four main dimensions of analysis and specific evaluation criteria/indicators were identified.

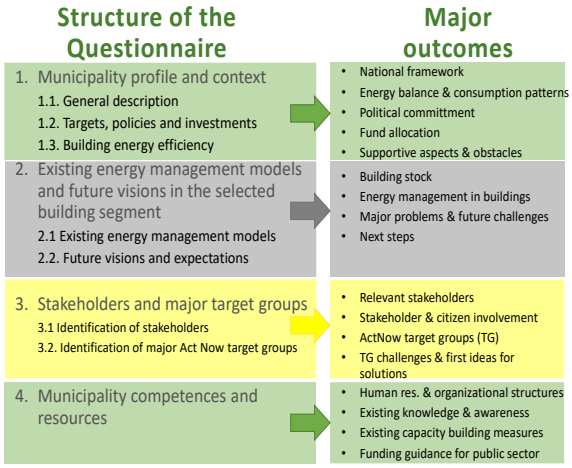


Figure 8. structure of the questionnaire

The first of the 02.1 report provide the general profile about the Municipality

The second part is creating a comparison about all the participating Municipality in terms of

- Framework conditions

- Buildings stock identification
- Stakeholder identification and in-depth analysis
- Capacity assessment

The last part of the O2.1 report is summarizing the first main findings in term of:

- Problems identified;
- Plans for the future;
- Specific Identification of the Act Now target groups.

4.b SWOT Analysis

The summary of SWOT analysis for the Act Now municipalities is reported below.

4.c Capacity Building Schemes (CBS)

In order to further identify the tailored CBS for each Municipality there is the need of critical review within a synergetic approach among the Municipality management Staff, the established Local Energy Action Plan (LEEG) and the coaching partner.

The key results of the detailed capacity building scheme template that will be implemented in each Municipality are based on potential capacity building schemes (CBSs) on the identified gaps from the self-assessment tool (see table 4 page 13)

4.1 Magistrate of the City of Bremerhaven

4.1.1 O2.1 Output: Bremerhaven

According to the state-of-the-art assessment of the Energy management and energy strategies for Act Now the following main problems were identified:

The lack of a genuine municipal energy policy of the municipal political parties as a compass for the administration: At present, neither the party programs of the local political parties nor the coalition agreement of the current ruling coalition contain a binding, trend-setting declaration on local energy or climate policy. This leads to the fact that city has several SEAPs of the administration which reflect the work programs on energy policy, but at the same time individual measures must be discussed repeatedly and brought painful to an implementation decision. While the SEAPs are adopted politically, they mostly contain only binding measures which have an effect within the administration itself. The energy and climate policy important non-public sectors with the greatest savings potential, such as private households, services and trade, are not reached by the administration in this way.

Law restrictions for the local government prevents it to intervene effective in the energy consumption of private households or enterprises: There is no binding regulation for the private sector (in the building sector) that commits the actors here to work towards the political climate goals that have also been decided for you. The collection of energy consumption data in the private sector is difficult due to high data protection hurdles in Germany. Especially older private buildings are subject to high pressure from unfair speculation with real estate and are therefore withdrawn from energy refurbishment due to greed for profit and lack of interest on the part of the owner. at the same time, the owner's property is legally protected.

Severe budget restrictions: Budgetary restrictions restrict the financial scope of the municipality down to zero in incentive programs**.** Any purchase and investment is subject to strict financial reservation and is practically impossible unless the universal service is concerned**.** An ailing rental housing market and poor building fabric in old buildings have set off a downward spiral from which impoverished homeowners hardly find their way. as a result the renovation rate suffers.

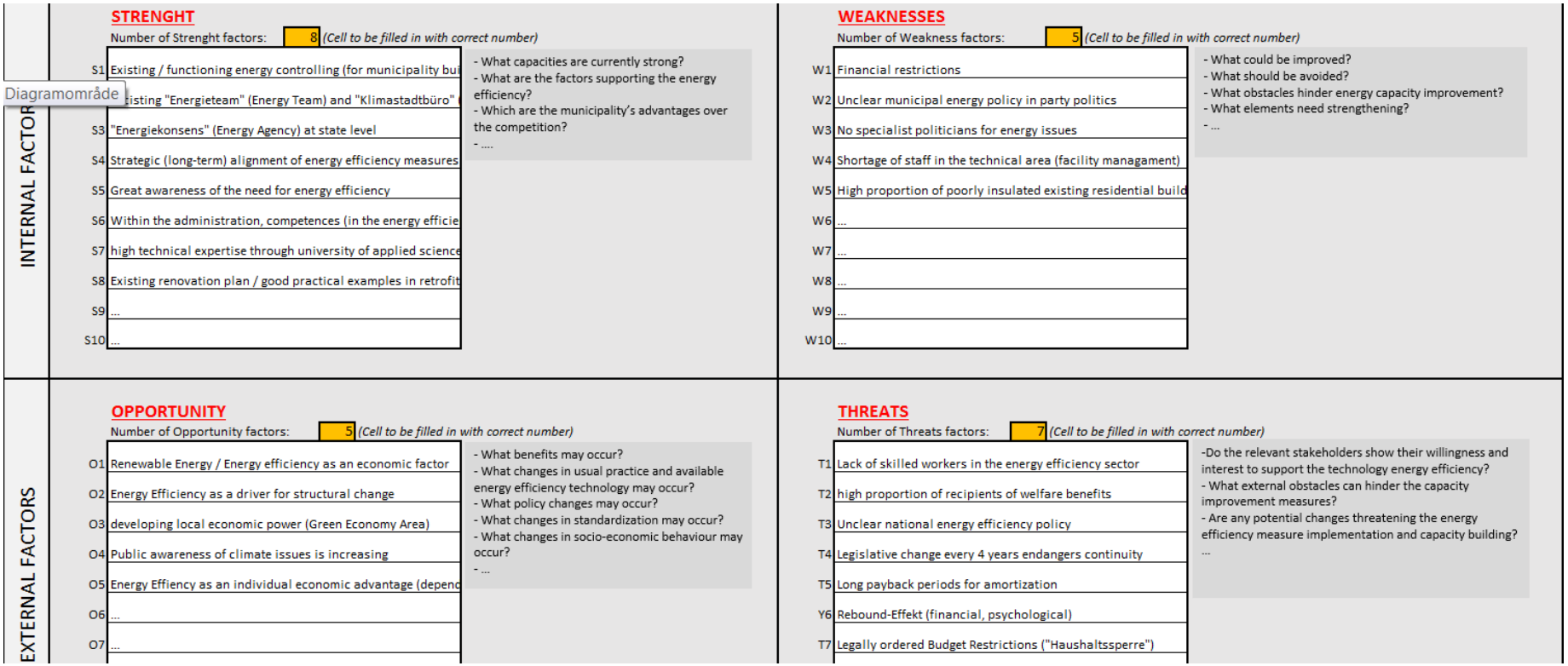
Energy efficiency and climate protection are not original tasks of a municipality: Against this background, it is fatal that the municipality has to struggle with a debt burden of 1.6 billion and an interest burden of 50 million euros per year, as there are always budget expenses stops in which only compulsory tasks of the municipality shall be financed.

Knowledge of financing methods and technical solutions seems to be underdeveloped in the most sectors like public authority, house owners, enterprises….
Financing models are not sufficiently known

Plans for the future:
It is planned to find solutions how the municipal administration can improve private invest in private houses. Therefor a pilot project will be implemented.
The project has four levels which are represented in work packages accordingly the technical level of potential analysis, energy-efficient housing industry for tenants and owners, participatory for all residents and education for sustainable development, iImplementation, evaluation and further development. The house owners are to be qualified and motivated by the provision of planning and evaluation bases to renovate their buildings energetically and to have a direct benefit in a subsequent implementation phase with accompanying consultation. On-site consultation ... In order to motivate the house owners to take an active part, they should be put in a position to renovate their buildings energetically through information, qualification and consultation in the result of the investigations or to renew the TGA systems, in particular the heating system.

***Act Now!* target groups:**
Private homeowners, municipal staff, municipal housing companies, energy suppliers, residents, tenants

4.1.2 SWOT Analysis for Bremerhaven



4.1.3 Capacity Building Scheme Template for Bremerhaven

Bremerhaven and PP02 (University of Leuphana) were compiled as a new tandem after PP04 (University Flensburg) drop out from the project in order to compensate for Flensburg's project contribution. Due to this comparatively late start of this tandem, the creation of a Capcity Building Scheme has been postponed to the 4th project period. In the following, the steps worked through up to that point are presented chronologically.

5 February 2018: Bremerhaven Energy Team Meeting (LEEG) to review the energy policy working program (EPAP – sort of a SEAP on the local level), since 2015 the valid municipal energy program. Comparison of the EPAPs implementation status. Definition of strategic core statements of the Climate Protection and Energy Program KEP2020 (a SECAP on the level of the federal state Bremen).

From March to September 2018, written responses from the energy team members to update the management tool for the European Energy Award. The management tool records the individual measures for increasing municipal energy efficiency and automatically establishes cross-references between the fields of measures.

20 November 2018 : Energy Team Meeting (LEEG) to update the processing expertise, define core areas of work for the selection of energy policy measures. Agreement on first priority measures for further processing - including the “Klimameile Alte Bürger". Preselection of the measure “Integrated Climate Neutral Quarter Concept – Klimameile Alte Bürger” as one of the measures with the expected highest cost-benefit-ratio for the municipality and the owners of housings. The concept is considered as a good example for a capacity building process and lessons learned lab in the capacity building.

March 2019: Energy-Team updated the management tool for the European Energy Award. Selected priority measure from the energy policy work programme unexpectedly becomes part of the government party's programme for the new legislative period (2019 - 20123).

4.2 Gulbene Municipality

4.2.1 O2.1 Output: Gulbene

According to the state-of-the-art assessment of the Energy management and energy strategies for Act Now the following main problems were identified: Lack of financial resources for policy implementation: ***Lack of financial resources for policy implementation***:

- Lack of funding to employ skilled experts;
- Lack of funding to long-term integrated planning;

- ***Lack of knowledge/awareness for policy planning and implementation***:
  - Lack of specific objectives and activities in previous planning documents;
  - No internal rules of procedure or guideline for buildings (individual planning);
  - No specific targets for energy performance in buildings, no responsibility;
- ***Low awareness and involvement of stakeholders and municipality staff***:
  - Low motivation for municipality staff to change daily routines;
  - Only voluntary initiatives; no common rules or tools in the buildings.
  - Lack of unified data processing and tools to provide easy-to-understand information;
  - No discussion with stakeholders in the planning process;
  - Low level of communication with the general public.
- ***Lack of energy data***:
  - No fuel consumption data in some district heating systems;
  - no data on local electricity production from RES in the region;
  - lack of heat metering equipment in parishes (of 101 buildings, about 45 buildings do not have a heat meter).
- ***Building renovation projects***:
  - Failures in the project design phase due to short deadlines and specialists' negligence;
  - Resistance of building users who are very used to old models of practice;
  - Low awareness and knowledge of general public about energy and climate issues.

Based on the discussion and main outcomes for the implementation of the GoA2.1 activity the following **plans for the future** has been drafted: Development and introduction of an energy management system, evaluation of current system conditions; installation of heat meters; data analysis and awareness raising, energy plan for municipal buildings, energy efficiency guidelines.

The specific Act Now target groups has been identified in-terms of: Energy system operators, housing companies, scientific institutions, users of public buildings.

4.2.2 SWOT Analysis for Gulbene

The summary of SWOT analysis for Gulbene Municipality is reported in the table below:

	Enhancing factors	**Hindering factors**
Internal factors	***Strengths***	***Weaknesses***

	S1. Strong commitment at municipality's top political level is stated S2. Recruiting an energy manager: It is planned that the energy manager will improve the situation and will introduce an energy management system in Municipality. S3. A Workgroup on Energy Planning and Energy Efficiency has been developed within the municipality S4. A new Gulbene development strategy is developed including an energy-efficient action line S5. There is experience in implementing many municipal building energy efficiency projects S6. Energy consumption is monitored in municipality owned buildings and for street lighting S7. Energy consumption data analysis is performed annualy (at building level only) S8. There are facilities for measuring indoor microclimate and some other energy efficiency parameters of buildings and systems (thermograph, luxometer, temperature, humidity and CO2 measurement loggers).	W1. A lack of understanding among people about why such specific data is needed regarding energy consumption (Low awareness and involvement of stakeholders (public utilities, energy system operators, financing institutions, private investors and other). W2. Lack of thermal energy monitoring equipment and precise information on energy consumption at most parishes and connectivity of different energy storage platforms.# W3. A problem that occurs after project implementation is related to building or system operation (people are used to ancient systems where electronics and modern technology were not so common) W4. Lack of knowledge for policy planning and implementation W5. Since there are no rules, there is no incentive for employees to meet energy efficiency requirements. If there was a penalty or bonus system, most of the municipality's staff would address this issue. W6. Lack of funding for hiring a skilled workforce W7. No in-detail study of energy consumption in different sections of buildings (and plan on how to use energy more efficiently and where it is being spent unduly) W8. A lack of unified data processing policies and tools to provide visually and understandable information regarding energy consumption (The existing system for data gathering regarding energy consumption is quite complicated). W9. No funds allocated in a medium timescale for implementation of climate and energy related projects in your municipality. W10. No climate change mitigation/adaptation and/or energy use targets are set in the municipality (A lack of specific responsibility and targets for building energy performance).
External factors	***Opportunities***	***Threats***

	O1. The existing strong dialogue and collaboration with scientific institutions and Vidzeme Planning Region may provide future development possibilities. O2. Develop a strategy for the implementation of Low temperature heating systems in Gulbene Municipality. O3. If it would be possible to prove to the heat energy supplier that they should think about increasing the energy efficiency of buildings and heating system, this would lead to energy efficiency gains O4. Establishment of Gulbene Energy Agency. O5. The society in general supports activities that focus on development and the clean environment around. O6. Local region level energy efficiency targets are set (Vidzeme Planning Region). If the regional municipalities would cooperate they could obtain funding form programs for which no single municipality can apply by itself (too low capacity). O7. National level energy efficiency targets are set. In order to achieve those targets the government may provide new grant schemes or other efficient financial instruments (Availability of funding programmes and resources).	T1. Society is lacking in knowledge to be able to analyse and understand the significance of energy efficiency indicators (- may lead to negative public perception of public energy efficiency investments if the results are not communicated sufficiently). T2. Empty buildings pose challenge due to decreasing number of population. T3. Lack in communication between municipality and citizens, below average interest of citizens towards renewable energy and energy efficiency T4. Unpredictability of funds (municipality, national and European budget) for implementation of energy efficiency measures T5. Lack in dialogue with public utilities, energy system operators, construction companies, housing companies' stakeholders may hinder implementation of energy efficiency projects . T6. The turnover of local government employee, which hinders development and the new employee has to learn everything again. T7. Climate issues are a threat in long-term and already an inconvenience in short-term (need for cooling in summer, change in heat load in winter). T8. The use of local heating systems in the municipality, because the installation of centralized heating is more expensive. T9. The unpredictability of energy costs.

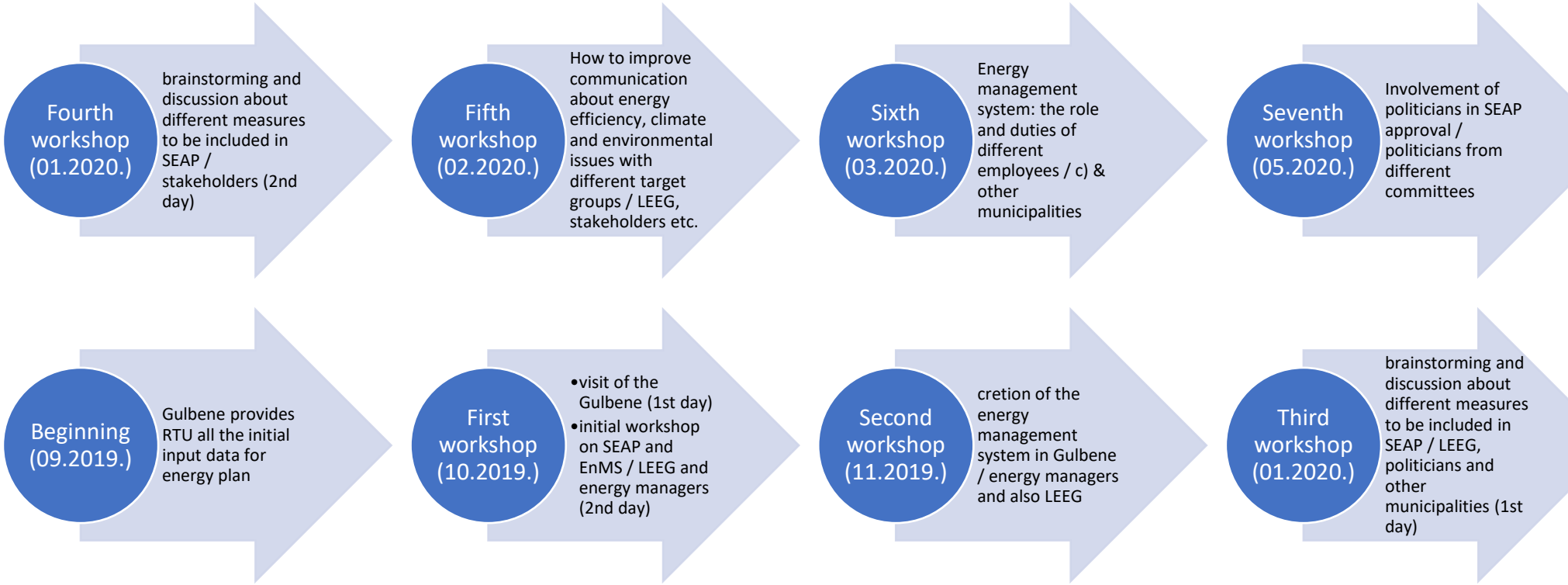
4.2.3 Capacity Building Scheme Template for Gulbene

In the next table is reported the specific and tailored CBS taking into account: Capacity building action; Foreseen Capacity dimensions Benefit (with reference to the assessment tool and SWOT); Aim; Learning goals; Adopted tool/instrument/concept/method; Time; Performers/implementers; Role of LEEG.

Capacity building action	Foreseen Capacity dimensions Benefit	Aim	Learning goals	Adopted tool/instrument/ concept/method	Time	Performers /implementers	Target groups	Role of LEEG
1. SEAP guidelines and EnMS according to ISO 50001	• Management Commitment • Implementation • Energy planning • Resources	• Increased knowledge about general Understanding of SEAP framework and Implementation/Integration of ISO 50001 requirements to a Public Authority	• Main parts of SEAP and EnMS • Energy/CO2 baseline for the implementation/definition of the SEAP and within the EnMS • Bioenergy/biomass assessments at municipal level • Presentation of best cases of synergies implementing ISO 50001 EnMS and SEAP • Availability (and collection) of energy data (presentation of tools) • creation of the energy management system in Gulbene	• 2 workshops	• October 2019 – March 2010 (see time line details below)	RTU	• Municipal top management staff • Energy Managers • LEEG • Other Municipalities	• Stakeholders engagement (i.e. other municipality) • Knowledge acquiring
2. Understanding the need of local stakeholders and politicians for better synergy on EE improvements for	• Management Commitment • Implementation • Energy planning • Resources	• Brainstorming and discussion about different measures to be included in SEAP	• Priority on different measures to be included in SEAP	• 4 Workshops	• From November 2019 till March 2020 (see time line details	• RTU and LEEG	• LEEG • Local stakeholders • Politicians • Employs (users) • Other Municipalities	• Stakeholders engagement

SEAP					below)			
3. Presentation of the developed SEAP	• Management Commitment • Implementation • Energy planning • Resources	• Clear explanation of the SEAP strategy	• Understanding and clarification of the SEAP targets	• 1 workshop	• May 2020	• LEEG (RTU support)	• politicians from different committees • Local stakeholders	• Stakeholders engagement
4. Improved communication	• Implementation • Resources	• Promote an effective communication strategy on EE • Presentation of communication tools	• How communicate to tenants to promote EE measures • EE with little efforts	• 1 seminar	• March 2020	• RTU	• Municipal top management staff • Energy Managers • LEEG • Academia • Experts • Facility owners and operators	• Information provision
5. Climate change and EE	• Implementation • Resources	• Promote an effective communication strategy on EE and effect of climate change	• Set climate change reduction targets for the municipality (commitment from Municipality) • Climate change effects on resource consumption • Climate change impact assessment methods	• 1 seminar/workshop	• September 2020	• RTU	• Municipal top management staff • Energy Managers • LEEG • Academia • Experts	• Information provision

The time line specifically addressed to the SEAP finalization is reported below



The main topics to be discussed in each workshop will be defined during the CBS implementation.

The main issues to discuss during the workshop (4 hours) on October 2019 will be:

- Overall concept: agreeing on the main principles ;
- Results of the existing situation: based on the data and observations;
- Identification and discussion of the main challenges in Gulbene district (based also on the results of the SWOT analysis);
- Agreeing on strategic goals and objectives;
- Identification of the main focus areas for further actions;

The role of energy management and main principles: the case for Gulbene.

4.3 Municipality of Gdynia

4.3.1 O2.1 output: Gdynia

According to the state-of-the-art assessment of the Energy management and energy strategies for Act Now the following main problems were identified:

- ***Early stage of energy data collection:***
- The city has access to an energy management system; however, data implementation is at an early stage,
- low motivation of building administrators to input data in the collection process,
- Low wages when it comes to finding qualified administrative assistance,
- Lack of funding to employ additional staff to assist in data collection,
- Irregularities in data collection and problem of supplier invoice correctness.
- ***Lack of financial resources for efficient fulfilling of current energy efficiency plans:***
- Reach of municipal projects is limited by low founding,
- The number of participants willing to modernize heating systems in residential buildings highly exceeds available subsidies,
- The municipality works actively to raise awareness, yet promotion remains limited by funding.
- ***Minimal cooperation between local municipalities:***
- Better cooperation between local municipalities to actively engage common metropolitan problems,
- Create a system of know-how and experience exchange within local municipalities,
- Lack of a coherent energy data collection system, with a wider local reach,
- Different interests and motivation factors of individual municipalities potentially creating conflicts of interest.

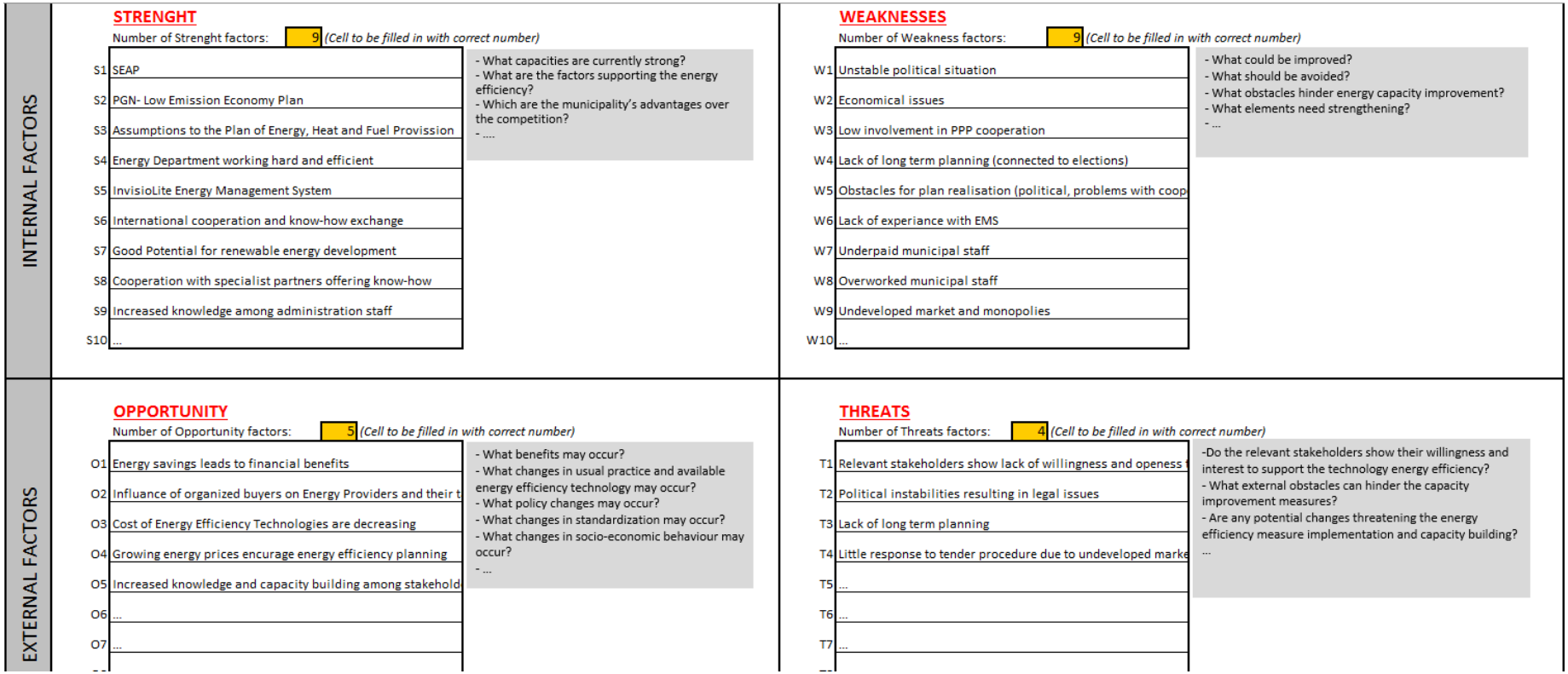
Based on the discussion and main outcomes for the implementation of the GoA2.1 activity the following **plans for the future** has been drafted:

- Energy efficiency auditing of selected municipality owned educational buildings.
- Increasing awareness about energy consumption and ways of increasing energy efficiency among building users.
- Creation of Regional Energy Efficiency Group for exchange of energy efficiency related practices and building a contact base for future cooperation in projects related to energy efficiency.

The specific **Act Now target groups** has been identified in-terms of:

- Administrators of educational buildings, the staff and students of selected buildings.
- Persons responsible for energy planning in neighboring municipalities, potential members of a Regional Energy Efficiency Group.

4.3.2 SWOT Analysis for Gdynia



INTERNAL FACTORS	**STRENGHT** Number of Strenght factors: 9 *(Cell to be filled in with correct number)* S1 SEAP S2 PGN- Low Emission Economy Plan S3 Assumptions to the Plan of Energy, Heat and Fuel Provission S4 Energy Department working hard and efficient S5 InvisioLite Energy Management System S6 International cooperation and know-how exchange S7 Good Potential for renewable energy development S8 Cooperation with specialist partners offering know-how S9 Increased knowledge among administration staff S10 ...	- What capacities are currently strong? - What are the factors supporting the energy efficiency? - Which are the municipality's advantages over the competition? - ....
	WEAKNESSES Number of Weakness factors: 9 *(Cell to be filled in with correct number)* W1 Unstable political situation W2 Economical issues W3 Low involvement in PPP cooperation W4 Lack of long term planning (connected to elections) W5 Obstacles for plan realisation (political, problems with coop W6 Lack of experiance with EMS W7 Underpaid municipal staff W8 Overworked municipal staff W9 Undeveloped market and monopolies W10 ...	- What could be improved? - What should be avoided? - What obstacles hinder energy capacity improvement? - What elements need strengthening? - ...
EXTERNAL FACTORS	**OPPORTUNITY** Number of Opportunity factors: 5 *(Cell to be filled in with correct number)* O1 Energy savings leads to financial benefits O2 Influance of organized buyers on Energy Providers and their t O3 Cost of Energy Efficiency Technologies are decreasing O4 Growing energy prices encurage energy efficiency planning O5 Increased knowledge and capacity building among stakehold O6 ... O7 ...	- What benefits may occur? - What changes in usual practice and available energy efficiency technology may occur? - What policy changes may occur? - What changes in standardization may occur? - What changes in socio-economic behaviour may occur? - ...
	THREATS Number of Threats factors: 4 *(Cell to be filled in with correct number)* T1 Relevant stakeholders show lack of willingness and openess t T2 Political instabilities resulting in legal issues T3 Lack of long term planning T4 Little response to tender procedure due to undeveloped marke T5 ... T6 ... T7 ...	-Do the relevant stakeholders show their willingness and interest to support the technology energy efficiency? - What external obstacles can hinder the capacity improvement measures? - Are any potential changes threatening the energy efficiency measure implementation and capacity building? ...

4.3.3 Capacity Building Scheme Template for Gdynia

Capacity Assesment results	capacity lacks/capacity building needs	Aim	Previous Knowledge/lifetime experience	Learning goals	Adopted tool	Implementation time	Budget	Performers	Responsibility
1. Commitment and management									
Capacity building training 1:A	"Lack of knowledge related to newest EU regulations related to energy efficiency"	Increase knowledge on EU policy	energy manager/engineer	Increase knowledge on EU policy	Seminar	autumn 2019	300 Euro	dr Teresa Zurek	IMP PAN/Gdynia
Capacity building training 1:B									
Capacity building training 1:C									
2. Energyplanning									
Capacity building training 2:A	How to calculate CO2 emission in various systems	to increase knowledghe on CO2 emission calculation methods	Energy menager prepared Low emisssion plan for Gdynia	to increase knowledghe on CO2 emission calculation	Seminar	spring 2020	200 Euro	dr Grazyna Rabczuk	IMP PAN
3. Impementation	Lack of deep knowledge on energy monitoring systems	to increase knowledge on energy monitoring systems	experts and engineers resposible for city buildings	to increase knowledge on energy monitoring systems	Seminar/study visit	Autumn 2019	300 Euro	Solvena	IMP PAN
Capacity building training 3:A	Lack of deep knowledge on energy monitoring systems	to increase knowledge on energy monitoring systems	experts and engineers resposible for city buildings	to increase knowledge on energy monitoring systems	Seminar/study visit	Autumn 2019	300 Euro	Solvena	IMP PAN
4. Resources									
5. Infrastructure									
Capacity building training 4:A	Lack of deep knowledge on building modernization effects	to increase results of thermal modernization	exspert and engineers responsible for city buildings and housing	to increase results of thermal modernization	Workshop	Autumn 2019	300 Euro	dr M. Dzierzgowski	IMP PAN

4.4 Sievi Municipality (In cooperation with Association of Ylivieska Region)

4.4.1 O2.1 output: Sievi

According to the state-of-the-art assessment of the Energy management and energy strategies for Act Now the following main problems were identified:

- ***Problem 1: Heterogeneous system structure***

- The biggest buildings in town center under the one system, but remote locations are out of monitoring
- No common protocol nor UI to handle all buildings in one view

- ***Problem 2: Missing commitment***

- No SEAP nor energy agreement
- So far not enough political motivation for strong commitments

Based on the discussion and main outcomes for the implementation of the GoA2.1 activity the following **plans for the future** has been drafted:

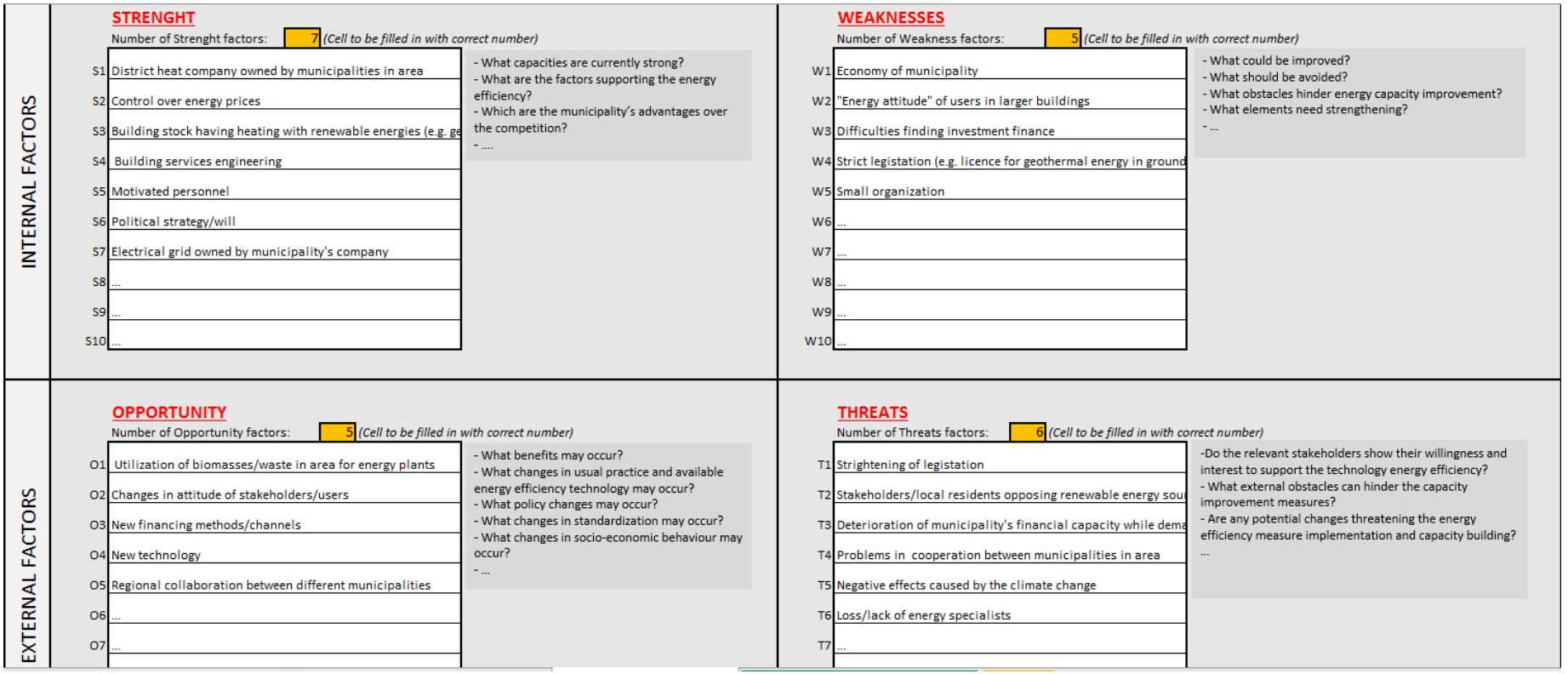
1) Monitoring solution for village schools via Act Now investments.

2) Revised energy balance sheet and ramping up SEAP process

The specific **Act Now target groups** has been identified in-terms of:

Municipal officials and political leaders.

4.4.2 SWOT Analysis for Sievi



INTERNAL FACTORS

STRENGHT

Number of Strenght factors: 7 *(Cell to be filled in with correct number)*

S1	District heat company owned by municipalities in area
S2	Control over energy prices
S3	Building stock having heating with renewable energies (e.g. ge
S4	Building services engineering
S5	Motivated personnel
S6	Political strategy/will
S7	Electrical grid owned by municipality's company
S8	...
S9	...
S10	...

- What capacities are currently strong?
- What are the factors supporting the energy efficiency?
- Which are the municipality's advantages over the competition?
- ....

WEAKNESSES

Number of Weakness factors: 5 *(Cell to be filled in with correct number)*

W1	Economy of municipality
W2	"Energy attitude" of users in larger buildings
W3	Difficulties finding investment finance
W4	Strict legistation (e.g. licence for geothermal energy in ground
W5	Small organization
W6	...
W7	...
W8	...
W9	...
W10	...

- What could be improved?
- What should be avoided?
- What obstacles hinder energy capacity improvement?
- What elements need strengthening?
- ...

EXTERNAL FACTORS

OPPORTUNITY

Number of Opportunity factors: 5 *(Cell to be filled in with correct number)*

O1	Utilization of biomasses/waste in area for energy plants
O2	Changes in attitude of stakeholders/users
O3	New financing methods/channels
O4	New technology
O5	Regional collaboration between different municipalities
O6	...
O7	...

- What benefits may occur?
- What changes in usual practice and available energy efficiency technology may occur?
- What policy changes may occur?
- What changes in standardization may occur?
- What changes in socio-economic behaviour may occur?
- ...

THREATS

Number of Threats factors: 6 *(Cell to be filled in with correct number)*

T1	Strightening of legistation
T2	Stakeholders/local residents opposing renewable energy sou
T3	Deterioration of municipality's financial capacity while dema
T4	Problems in cooperation between municipalities in area
T5	Negative effects caused by the climate change
T6	Loss/lack of energy specialists
T7	...

-Do the relevant stakeholders show their willingness and interest to support the technology energy efficiency?
- What external obstacles can hinder the capacity improvement measures?
- Are any potential changes threatening the energy efficiency measure implementation and capacity building?
...

4.4.3 Capacity Building Scheme Template for Sievi

Capacity Assesment results	capacity lacks/capacity building needs	Aim	Previous Knowledge/lifetime experience	Learning goals	Adopted tool	Implementation time	Budget	Performers	Responsibility
1. Commitment and management									
Capacity building training 1:A	Communicate the energy policy with external stakeholders (private sector) and public	Increase the knowledge of external about the municipality's energy policy	Identification of stakeholders residents, the users of the building, private sector, district heating company... etc.	Increase the public knowledge about the energy policy	Municipalitys own information channels, local newspaper	Starting 2019 autumn -->	*	"Energy manager"; administrative manager; Municipalitys communication	"Energy manager"
Capacity building training 1:B	Energy policy includes regular revision and update	Constant increase in knowledge and continuous improvement.	Monthly reports from Schneiderin building level. Annual total consumption report.	Finding the lacks in energy policy.	Schneider reporting tools	Autumn 2019	??	"Energy manager"; administrative manager; Act Now Expert partner	Technical committee; "Energy manager"; Act Now expert partner
Capacity building training 1:C	Energy strategy contains a commitment with quantitative improvement targets and timeline	Update of Energy strategy	Old energy strategy	Future tasks		Summer 2019		"Energy manager"; Act Now expert partner	"Energy manager"; Act Now expert partner
Capacity building training 1:D	Energy strategy contain an Action Plan for implementation	To have a guideline for the actions				Beginning of 2020		"Energy manager"; Act Now expert partner	"Energy manager"; Act Now expert partner
Capacity building training 1:E	Strategy and Action Plan approved by the top management	Top management is committed to the targets	Strategy and action plan			Beginning of 2020		Top management; "Energy manager"	"Energy manager"
Capacity building training 1:F	Strategy and Action Plan shared with private sector partners	Increase the knowledge of external about the municipality's energy policy	Strategy and action plan. Identification of stakeholders.		Municipalitys own information channels, local newspaper. Entrepreneur forum.	Spring 2020	*	Trade ombudsman, Municipalitys' industrial park,	"Energy manager"
Capacity building training 1:G	Local working group	Set up Municipality's LEEG	Identification of the suitable members and stakeholders.			August 2019		Energy manager,	Technical committee; "Energy manager"; Top management
2. Energyplanning									
Capacity building training 2:A	CO2 emission calculated and future fuel use and CO2 emission estimated	Calculate and estimate the carbon footprint	Qualities and quantities of fuels. "Energy audit Sievi" document written by Simo Mäenpää 2019		https://www.motiva.fi/files/10239/CO2-laskentaohje_Yhteenvedot.pdf http://www.stat.fi/tup/khkinv/khkaasut_polttoaineluokitus.ht	Summer 2019		"Energy manager"; Act Now expert partner	"Energy manager"; Act Now expert partner
Capacity building training 2:B	The targets are based on the energy performance analysis and revised in regular basis	To have the targets based on measured data, and are realistic	Energy performance analysis data	Targets for the strategy		Autumn 2019		"Energy manager"; Act Now expert partner	Energy group with top management; Act Now expert partner
Capacity building training 2:C	Financial, operational and business conditions, technological options and views	To have up-to-date knowledge. Development of	Identification of stakeholders	Future of the Municipality		Autumn 2019		Technical committee, Act Now expert partner	Technical committee, Act Now expert

Capacity building training 2:D	Energy efficiency action plan with a regular revision and updates	Guide to the climate/energy work	The action plan			Beginning of 2020		Act Now expert partner, LEEG	Top management, "Energy manager"; Act Now expert partner
3. Impementation									
Capacity building training 3:A	The communication with external partners/stakeholders/public about the energy policy, targets etc.	Increase the knowledge	Identification of the stakeholders		Local newspapers, Municipality's own communication channels; "Energiapäivä"/"Energy day",	July 2019 (Energy day); Autumn 2019 ->	*	Act Now expert partner, administrative manager, local newspaper	"Energy manager", Act Now expert partner
Capacity building training 3:B	Internal audits	Improve the quality of EM		To find the weak spots. Continuous improvement.		***		Internal audit group together with "energy manager"	Top management
Capacity building training 3:C	EnMS revision by top management	Continuous improvement of the quality of EMS	Data EMS,	Repayment period; realized savings (human resources, energy savings etc.)		Autumn 2019		"Energy manager" with top management, Expert partner	"Energy manager" together with top management
4. Resources									
Capacity building training 4:A	Clear job descriptions and EMS awareness in all levels	The role of energy manager+ LEEG is clear to all employees and public				Autumn 2019		LEEG, Municipality's communication	Top management, LEEG, municipality's communication
Capacity building training 4:B	Identification of EMS and energy control training needs	Identification of the lack in knowledge and learning the newest information				Autumn 2019	300 e	LEEG, "Energy manager"	LEEG, "Energy manager"
Capacity building training 4:C	Wider awareness initiatives held regularly (among employees; local community)	Increase the knowledge				October 2019 (energy week)	?	Schools, Municipality	LEEG, Municipality's communication
Capacity building training 4:D	Financing sources: projects and third party. And a person assigned to climate/energy projects	Investment money, possible third party projects and plans. Sufficient human resources to take care of the climate/energy projects	Different financing sources, the third party in municipality			2021		Person responsibleforthe energy projects	Top management, Person responsible for the energy projects
5. Infrastructure									
Capacity building training 5:A	Bioenergy potential at municipal level is assessed and/or reported on a GIS-system platform	Information about the actual biomass potential (amounts, locations etc.) in municipality's area				2021		LEEG, Person responsible for the energy projects	LEEG
Capacity building training 5:B	Existing electric energy metering system at system's level	Knowledge of the actual energy consumption at system level. Increase the amount of measurement systems.	Systems missing the measurement system. Prioritize the systems which need to be equipped first.			Spring 2020	**	Technical committee, Act Now expert partner	Technical committee
Capacity building training 5:C	Existing electric energy metering system at appliance level	Knowledge of the actual energy consumption at system level. Increase the amount of measurement systems.	Systems missing the measurement system. Prioritize the appliances which need to be equipped first.			Spring 2020	**	Technical committee, Act Now expert partner	Technical committee
Capacity building training 5:D	Complete monitoring and measurement systems connected to cloud/ software for real-time data visualization	Collect all the data in the same place in real-time where it could be combined and visualize				Autumn 2019	??	Technical committee, Act Now expert partner	"Energy manager", top management
Capacity building training 5:E	Valid building energy performance certificates in place	50 % of the buildings in 2022	New buildings have certificates, prioritizing the older buildings	To find the buildings that require investments first		2022	???	"Energy manager"+ external expert	"Energy manager"

NOTES!
The Sievi municipality does not have a person who has title "Energymanager" (yet), however there is a person working with energy affairs. One of the first things that the LEEG should do is to have the tittles fixed.
* "The increase in public knowledge" has a total budget around 800 euro
** The budget will be decided after the knowledge of costs (Expert partner)
*** The problem in small organizations - how will be in audit group?? Should the auditing come from outside of the municipality??

4.5 Silute District Municipality Administration

4.5.1 O2.1 output: Silute

According to the state-of-the-art assessment of the Energy management and energy strategies for Act Now the following main problems were identified:

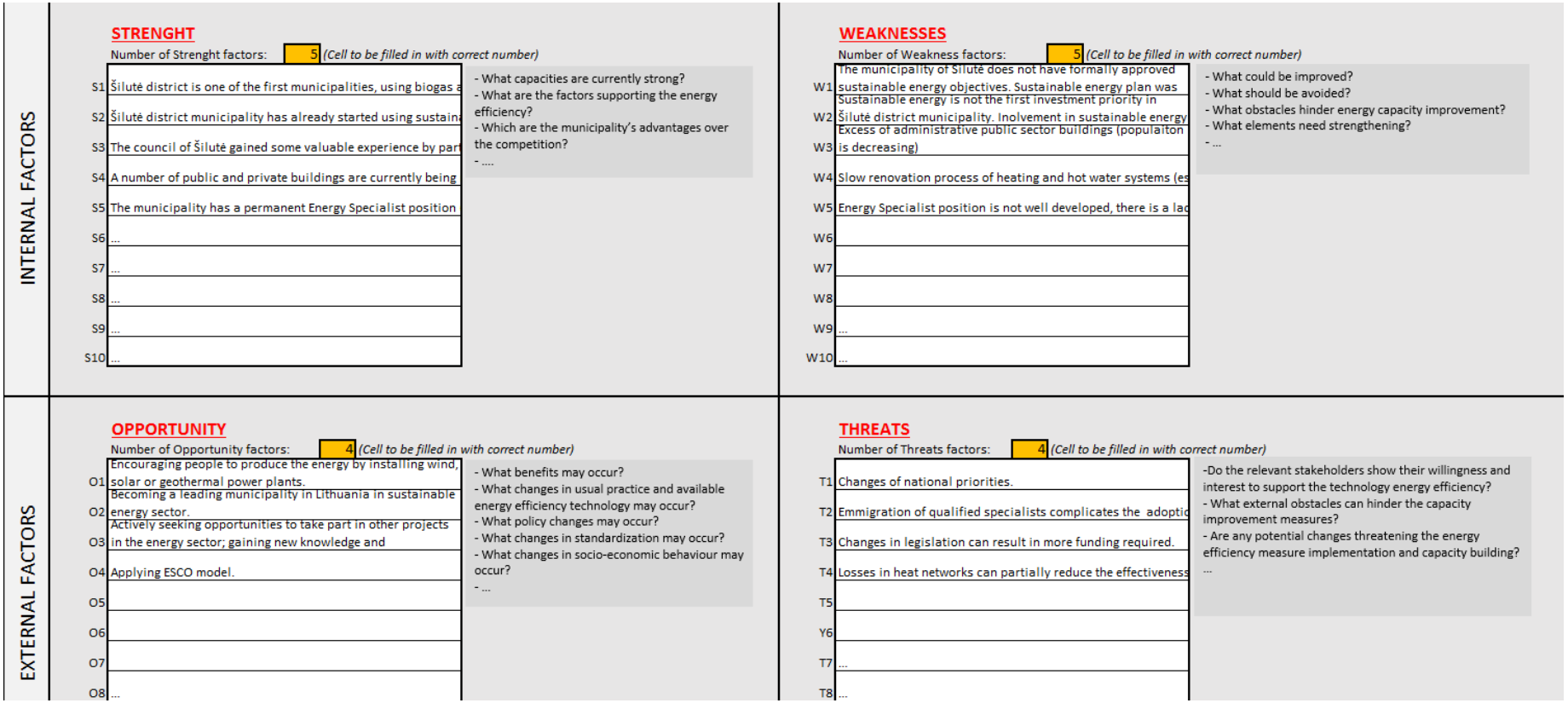
Šilutė District Municipality approved SEAP in 2012, but it was more like a formality (and image building). From that time there was no essential follow-up on implementation of SEAP (should have been in 2016). In addition, they did not estimate CO2 emissions baseline, which makes it difficult to assess reduction. The last estimation was done in 2010.

- ***There is lack of political will devoted to climate and energy related issues****,* because all the savings (for example, from energy efficiency) are currently allocated to cover municipal debts, rather than invested in implementation of climate and energy related measures.
- ***The Municipality does not have enough funds to finance energy and climate related policies*** (own contribution to EU projects is meant).
- ***EU structural funds support is sufficient; there is only question about the ability and capacity*** to use them.
- Municipality staff does not understand that they could contribute to solving those problems – lack of knowledge, time, motivation and awareness.
- ***Lack of energy monitoring systems*** (only 3 buildings from 50 municipal buildings)
- ***Lack of motivation and awareness of stakeholders****,* ***citizens*** (no involvement of them)
- ***No dedicated people only for this topic*** (those, who are implementing this project lack time for this).
- ***No measures have been taken yet for capacity building***.

The specific **Act Now target groups** has been identified in-terms of:

Municipality specialists, building managers, administrators of educational institutions, children parents.

4.5.2 SWOT Analysis for Silute



4.5.3 Capacity Building Scheme Template for Silute

Capacity Assesment results	Capacity lacks/capacity building needs	Aim	Previous Knowledge/lifetime experience	Learning goals	Adopted tool	Implementation time	Budget, Eur	Performers	Responsibility
1. Commitment and management									
Capacity building training 1:A	No written energy policy that has been approved	and management engagement and commitment to energy policy	Sustainable energy action plan was approved in 2012	Effective energy management	Seminars/workshop/experienc e sharing/field trips	Autumn 2020	0	Project manager/project work group members, stakeholders, town council.	Simona Bokštaitė-Dryžienė/ Remigijus Budrikas/Modestas Rauktys
Capacity building training 1:B	Sustainable energy action plan approved and last reviewed in 2012	To renew sustainable energy action plan (SEAP)	SEAP was introduced and approved by the town council for the first time in 2012	Effective energy management	Analysis, seminars	Autumn 2020	10000	Project manager/project work group members, stakeholders, town council.	Simona Bokštaitė-Dryžienė/ Remigijus Budrikas/Modestas Rauktys
Capacity building training 1:C	Lack of external communication to the public about the energy policy of the municipality	To communicate the energy policy to the public, increase awareness of the importance	SEAP posted on the website of the municipality in 2012	Increased communication on energy management	the public and stakeholders, articles in the local news and media, use of municipality's website	Autumn 2020	2000	Communication department	
2. Energy planning									
Capacity building training 2:A	Lack of data analysis and awareness of energy consumption	important aspects that affect energy efficiency by carrying out regular analysis and to use energy consumption monitoring data for derival of current energy performance indicators, analyzing them and comparing against major energy performance indicators.	Energy consumption is monitored on a regular basis	Carrying out energy consumption analysis, reviewing current situaton and setting targets	Analysis, seminars	Spring 2020	2000	Project manager/project work group members	Simona Bokštaitė-Dryžienė/ Remigijus Budrikas/Modestas Rauktys
Capacity building training 2:B	Lack of targets based on energy performance analysis	To set targets to ensure compliance with energy performance analysis.	Top management in close collaboration with the local energy management working group and energy manager.	Energy consumption analysis in order to set energy consumption targets	Seminars/workshops/experien ce sharing	Spring 2020	2000	Top management in close collaboration with the local energy management working group and energy manager.	Simona Bokštaitė-Dryžienė/ Remigijus Budrikas/Modestas Rauktys
Capacity building training 2:C	A need to update SEAP regularly	To establish a regular and documented review and revision of the Action Plan every two years.	Sustainable energy action plan was approved in 2012	Regular updates of SEAP	seminar/workshop/experience sharing	Autumn 2020	2000	Project manager/project work group members, stakeholders, town council.	Simona Bokštaitė-Dryžienė/ Remigijus Budrikas/Modestas Rauktys

3. Implementation									
Capacity building training 3:A	Lack of regular internal communication of energy policy, targets and energy performance to all employees	Communicate your municipality's energy policy to all employees.	Communication of the energy policy via municipal website	Increased employees' awareness and engagement	Regualar seminars and workshops for employees, informaton available and visible to everyone, selected 'champions' in various departments to increase awareness of the energy policy	Spring 2020	2000	Administration of Silute district municipality	Simona Bokštaitė-Dryžienė
Capacity building training 3:B	Lack of data and analysis of data on energy consumption. Main problems with collecting data: wrongly collected data (human factor), lack of human resources and there is no way to monitor real-time energy consumption in municipal buildings and in street lightning.	Collected data is not analyzed, and since data is collected only on a monthly basis, it is not possible to evaluate critical points or atypical situations. Real-time monitoring would allow seeing maximum consumption, making comparisons and conclusions about energy losses and ways to save it. Certain knowledge and skills	Collected data that has not been reviewed	Regular review and analysis of collected data and communication of results to relevant groups.	Seminars, conferences	Autumn 2020	1000	Project manager/project work group members, stakeholders, town council.	Simona Bokštaitė-Dryžienė/ Remigijus Budrikas/Modestas Rauktys
Capacity building training 3:C	Energy management system isn't reviewed by the top management and city council at planned intervals	To ensure the stability, adequacy and effectiveness of the EnMs.	Energy management system are reviewed but not at set intervals	Annual review of Energy management system	Regular meetings of town council committees, annual review of Energy Policy, energy performance and related performance indicators; evaluation of compliance with legal or other requirements, reviewing the objectives and targets, follow-up actions from previous reviews.	Spring 2020	0	Administration of Silute district municipality, town council members	Simona Bokštaitė-Dryžienė/ Remigijus Budrikas/Modestas Rauktys
4. Resources									
Capacity building training 4:A	Lack of local working group members/ key personnel that have appropriate education and competences to implement energy management and the improvement action plan activities	To identify the training needs and ensure that the current personell have appropriate qualifications, arrange training if needed	Lack of energy mangement specialist, only one in the administration of Silute district municipality.	Increase current employees' engagement and knowledge of the energy sector.	Review of job descriptions,arranging special energy management seminars, conferences, studies, field trips.	Autumn 2022	10000	Administration of Silute district municipality	Simona Bokštaitė-Dryžienė/ Remigijus Budrikas/Modestas Rauktys
Capacity building training 4:B	No funds from the yearly budget dedicated to climate and energy related projects	To identify the amount of yearly budget that should be dedicated to climate and energy related projects	Lack of financial resources from State budget and EU funds.	Prioritise energy management projects	Meetings and workshops with members from administration of Silute district municiplaity and town council	Spring 2020	0	Administration of Silute district municipality, town council members	Simona Bokštaitė-Dryžienė/ Remigijus Budrikas/Modestas Rauktys
Capacity building training 4:C	Energy manager position is in place, but is not filled. There is an engineer performing energy manager's duties.	To recruit an energy manager with appropriate qualifications and skills.	Former energy manager is on matternity leave with no intension of coming back to the previous possition.	Clearly define the job description, advertise the role and recruit the best candidate	Reviewing the specifications of the role, ensuring effective recruitment and selection process.	Spring 2020	0	HR manager	Dalia Bernotienė
5. Infrastructure									
Capacity building training 5:A	Lack of individual heat energy meters in each public or private building (which is and planned to be in use)	To install individual heat energy meter in each public or private building (which is and planned to be in use)	Only a few blocks of flats have individual heat energy meter in each building. Smart energy management system is installed in 3 public buildings (schools).	Renovation of buildings and their heating system.	Renovation programmes, EU and state funds.	Autumn 2030	?	Administration of Silute district municipality	
Capacity building training 5:B	Lack of remote control of energy systems (electricity and/ or heat)	To install remote control of energy systems (electricity and/ or heat) in each municipal building	Only a few municipal buildings have remote control of energy systems.	Renovation of buildings and their heating system.	Renovation programmes, EU and state funds.	Autumn 2030	?	Administration of Silute district municipality	

4.6 Elva Municipality

4.6.1 O2.1 output: Elva

Three main problems to address as soon as possible were identified in Elva:

(1) Lack of reliable data

Data collection and aggregation has been identified as a barrier towards developing possible energy efficiency improvement measures. Investment in energy monitoring system is the main measure to overcome this barrier and this is expected to be solved within the timeframe of this project.

(2) Lack of capacity in energy management

Elva municipality has and will organize seminars for stakeholders who are responsible for energy management in their organizations. The installed EMS shall provide an excellent platform to exemplify the importance and benefits of a strategic approach to real estate management.

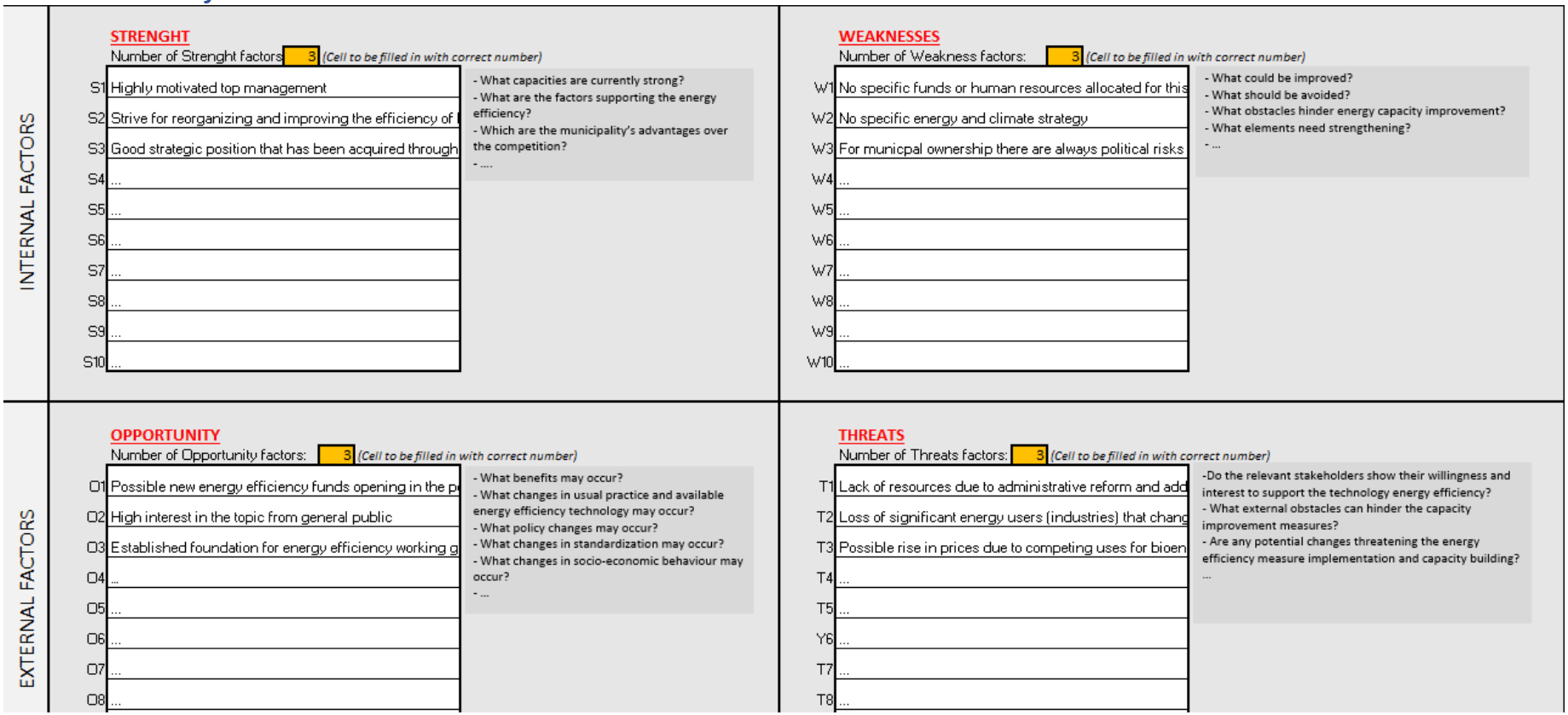
(3) Additional improvement potential in collaboration

Traditionally local municipalities have been working individually on their real estate and energy management plans. During the project Elva municipality is seeking to cooperate with other municipalities nationally and regionally to share and learn from existing projects and seek cooperation on new initiatives.

Main Act Now! target groups were also identified in the initial analysis process. These target groups now participate within different tasks in the LEEG as well. The groups are:

- local and regional real estate developers
- privately and publicly owned real estate management companies
- private citizens and tenants interested in energy efficiency improvements and building new energy efficient housing
- representatives of different departments of Elva Rural Municipality and representatives of neighbouring local municipalities
- representatives of district heating companies

4.6.2 SWOT Analysis for Elva



The main needs identified by the SWOT analyses are as follows:

- Allocating funds and finding human resources to deal with energy efficiency
- Launching the development of local energy and climate strategy in the municipality
- Need for reorganizing and improving the efficiency of building management in the municipality
- Overcome temporary lack of resources due to administrative reform and addition of weakly administered municipalities
- Motivation of significant energy users (industries) to stay in the region both for better employment climate and sustainability of energy systems
- Contribution to keeping up high interest in the energy efficiency topic from general public

4.6.3 Capacity Building Scheme Template for Elva

Action number	capacity lacks/capacity building needs	Aim	Previous Knowledge/lifetime experience	Learning goals	Adopted tool	Implementation time	Budget	Performers	Responsibility
1. Commitment and management									
1:A	Lack of knowledge about energy policy among external stakeholders	Communicate energy policy to increase the relevant knowledge	Previous policy/strategy documents, information about external stakeholders	Inform the general public	Conference/seminar	Regular (once-twice per year)	3 000 €	Internal organization	Act Now! Project manager
1:B	Lack of regular policy revision	Revise and update energy policy regularly	Previous policy/strategy documents	Learn to develop energy policy, identify the gaps in previous documents with public discussion and engagement	Public policy revision process	Start autumn 2020	N/A	Internal organization	Municipality management
2. Energy planning									
2:A	Lack of knowledge of the carbon budget	Calculate and demonstrate carb on footprint, compile an energy balance	No previous experience	Learn how to compile an energy balance/carbon budget	Compilation of a carbon budget	Spring 2020	5 000 €	External service	LEEG core group
2:B	No specified strategic goals	Develop measurable goals	Strategic goal development in other municipality policy areas	Learn how to develop energy policy specific goals	Consult LEEG and develop goals	Autumn 2020	N/A	Internal organization	Municipality management
3. Implementation									
3:A	No usable tools to specify current status	Introduce EnMS	No previous experience	How to deploy and improve EnMS	Investments to deploy EnMS	Autumn-winter 2019/2020	50 000 €	Procurement	Act Now! Project manager
3:B	Lack of knowledge on how to use the data that is already existing and that is gathered with the new EnMS	Analyse measures	Previous experience available among LEEG stakeholders	How to interpret EnMS data	Capacity training	December-January 2019	10 000 €	Internal organization	Act Now! Project manager/LEEG
3:C	Lack of action to implement saving measures	Implement measures	Previous experience in improving and refurbishing real estate, but not with the current motivation	Proof-of-concept on the positive impacts of energy efficiency measures	Consult LEEG and make proposals to municipality government	Spring 2020	?	Internal organization/external service	LEEG

3:D	Direct and indirect stakeholders are unaware of what the municipality is doing regarding energy efficiency	Communicate to direct and indirect stakeholders	Previous stakeholder information events	Inform the general public	Conference/seminar	Autumn-winter 2020	3 000 €	Internal organization	LEEG core group
4. Resources									
4:A	Lack of division of tasks and allocation of resources	Consult municipality employees and allocate sufficient resources	Previous municipality management experience	Deploy and learn energy management specific task division	Consult LEEG and make proposals to municipality government	Autumn 2021	N/A	Internal organization	Municipality management
5. Infrastructure									
5:A	Direct stakeholders do not have a harmonised way of working	Widen the scope of EnMS and harmonise infrastructure approach	No previous experience	Learn how to compile harmonising documentation among different municipality departments and organisations	Develop a manual/handbook with sufficient scope (consult LEEG)	End of 2021	N/A	Internal organization	LEEG core group/municipality management

4.7 Sonderborg Municipality

4.7.1 O2.1 output: Sonderborg

According to the state-of-the-art assessment of the Energy management and energy strategies for Act Now the following main problems were identified:

- ***Lack of national level strategy and guidance***

- The national framing has been less ambitious the last 2-4 year

- ***Lack of financial resources for policy implementation***

- Even if the city council has planned a fund of 1.335.000 EURO the next 3-4 year there will always be a lack of fund at municipal admin level

- ***Need for improvement***

- Implementation of a joint “customer journey” and associated communication and training of related stakeholders

- ***Building renovation projects:***

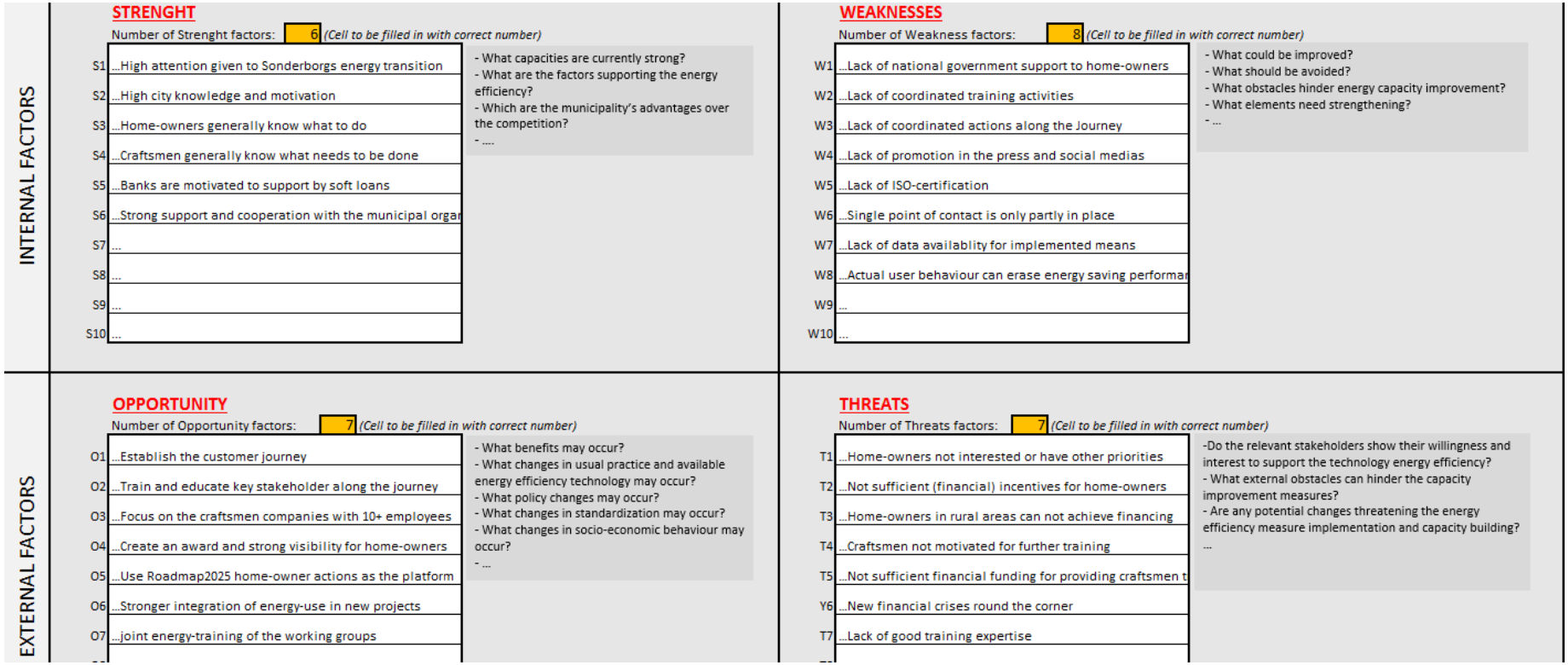
- Avoid empty buildings in the rural area villages by a good quality in energy efficiency in these buildings
- Create awareness among all owners of private buildings and especially the younger owners for the need of energy renovation (comfort of living) in their houses
- Funds for implementation of energy efficiency measures

Based on the discussion and main outcomes for the implementation of the GoA2.1 activity the following **plans for the future** has been drafted:

- To implement a work group of app. 8-10 key stakeholders from Sonderborg
- To implement the REFURB-toolbox and use this instrument in the further process together with the work group to approach the private home owners for energy renovation and energy efficiency of their buildings

The specific **Act Now target groups** has been identified in-terms of: Young families with children, families with empty nesters, inhabitants in smaller villages.

4.7.2 SWOT Analysis for Sonderborg



INTERNAL FACTORS

STRENGHT

Number of Strenght factors: 6 *(Cell to be filled in with correct number)*

S1	…High attention given to Sonderborgs energy transition
S2	…High city knowledge and motivation
S3	…Home-owners generally know what to do
S4	…Craftsmen generally know what needs to be done
S5	…Banks are motivated to support by soft loans
S6	…Strong support and cooperation with the municipal organ
S7	…
S8	…
S9	…
S10	…

- What capacities are currently strong?
- What are the factors supporting the energy efficiency?
- Which are the municipality's advantages over the competition?
- ….

WEAKNESSES

Number of Weakness factors: 8 *(Cell to be filled in with correct number)*

W1	…Lack of national government support to home-owners
W2	…Lack of coordinated training activities
W3	…Lack of coordinated actions along the Journey
W4	…Lack of promotion in the press and social medias
W5	…Lack of ISO-certification
W6	…Single point of contact is only partly in place
W7	…Lack of data availablity for implemented means
W8	…Actual user behaviour can erase energy saving performan
W9	…
W10	…

- What could be improved?
- What should be avoided?
- What obstacles hinder energy capacity improvement?
- What elements need strengthening?
- …

EXTERNAL FACTORS

OPPORTUNITY

Number of Opportunity factors: 7 *(Cell to be filled in with correct number)*

O1	…Establish the customer journey
O2	…Train and educate key stakeholder along the journey
O3	…Focus on the craftsmen companies with 10+ employees
O4	…Create an award and strong visibility for home-owners
O5	…Use Roadmap2025 home-owner actions as the platform
O6	…Stronger integration of energy-use in new projects
O7	…joint energy-training of the working groups

- What benefits may occur?
- What changes in usual practice and available energy efficiency technology may occur?
- What policy changes may occur?
- What changes in standardization may occur?
- What changes in socio-economic behaviour may occur?
- …

THREATS

Number of Threats factors: 7 *(Cell to be filled in with correct number)*

T1	…Home-owners not interested or have other priorities
T2	…Not sufficient (financial) incentives for home-owners
T3	…Home-owners in rural areas can not achieve financing
T4	…Craftsmen not motivated for further training
T5	…Not sufficient financial funding for providing craftsmen t
Y6	…New financial crises round the corner
T7	…Lack of good training expertise

-Do the relevant stakeholders show their willingness and interest to support the technology energy efficiency?
- What external obstacles can hinder the capacity improvement measures?
- Are any potential changes threatening the energy efficiency measure implementation and capacity building?
…

4.7.3 Capacity Building Scheme Template for Sonderborg

Capacity Assesment results	capacity lacks/capacity building needs	Aim	Previous Knowledge/lifetime experience	Learning goals	Adopted tool	Implementation time	Budget	Participants	Responsibility
1. Commitment and management									
ISO 50.001 training	lack of knowledge about the standard at city level	Live up to standard and potentially certification	Energyplanner at PZ-office	Adapt the standard for further development	the standard and its framework	during 2020	€ 1 500	Energyplanner at PZ-office	Energy planning
2. Energyplanning									
n/a									
3. Impementation									
n/a									
4. Resources									
n/a									
5. Infrastructure									
n/a									
6. home-owner segment									
CJ - Craftsmen training	Lacks understaning about lean mgm, quality mgm, sales/service/communication and climate change along the CJ and its 11 steps	improve knowledge and efficiency	technical knowledge	Craftsmen understand and support the CJ and improve understanding, communication,	Methodology and tools to be developed as part of the CJ-project. Climate conversation games are part of the tools.	2019/2020	tbd	app. 400 craftsmen from 20+ S/M companies in Sonderborg with 8+ employees	interactions with home-owners along the CJ´s 11 step process.
CJ - Financial institutions training	Lacks understaning about sales/service/communication and climate change along the CJ	initiate, fuel and support the CJ-process	financial knowledge	Financial advisors understand and support the CJ and improve understanding and	Methodology and tools to be developed as part of the CJ-project. Climate conversation games are part of the tools.	2019/2020	tbd	estimated 30-40 financial advisors and managers in Sonderborgs 10 banks	interactions with home-owners at the step 1-5 at the CJ´s 11 step process.
CJ - Realestate agent training	Lacks understaning about sales/service/communication and climate change along the CJ	initiate, fuel and support the CJ-process	realestate knowledge	Agents understand and support the CJ and improve understanding and communication.	Methodology and tools to be developed as part of the CJ-project. Climate conversation games are part of the tools.	2019/2020	tbd	estimated 35 realestate agents in Sonderborgs 8 realestate companies	interactions with home-owners at the step 1-5 at the CJ´s 11 step process.
CJ - municipal authority	Lacks understaning about sales/service/communication and climate change along the CJ	initiate, fuel and support the CJ-process	buildings, law and municipal administration	BYG & BOLIG employees understand and support the CJ and improve understanding and	Methodology and tools to be developed as part of the CJ-project. Climate conversation games are part of the tools.	2019/2020	tbd	estimated 15 employees working in the municipal BYG & BOLIG department	interactions with home-owners at the step 1-5 at the CJ´s 11 step process.
Technical Application knowledge	New smart energy applications require better introduction, system knowledge and training	Improve selling, implementation and operation	Integrated PV-panels on roof, district heating, energy retrofit, heatpumps, smart devices	Understand the application and how it fit my map of the world	tbd	2020+	tbd	all relevant stakeholders along the CJ	servicing home-owners

4.8 Mönsterås Municipality (Energy Agency for Southeast Sweden)

4.8.1 O2.1 output: Mönsterås

According to the state-of-the-art assessment of the Energy management and energy strategies for Act Now the following main problems were identified:

- ***Lack of strategy documents and management:***

- Need to establish policy, strategy and action plan documents with clear goals for the municipality's future work.
- Non existing energy management system
- Need of increased cooperation among staff in the municipality to get a better understanding regarding energy efficiency and energy management system.

- ***Lack of complete data collection****:*

- Lack of unified data processing system where data is collected and followed up in a mutual tool.
- Incomplete data collection strategy due to the need to access to different energy suppliers' systems which is complicated.
- What is lacking in the energy management system is that it is not possible to monitor data on a regular basis (monthly, weekly, hourly etc.)
- An automated data collection is also desirable.

- ***Low awareness and involvement of stakeholders, municipality staff and citizens:***
  - Public procurement Act, which complicates the ability to set requirements that lead to increased energy efficiency on suppliers.
  - Lack of knowledge among citizens and interest in what renewable energy and energy efficiency means.
- ***Lack of funds****:*
  - Need of funds related to implementing energy efficiency measures.
  - Lack of key figures for the calculation of investment required to achieve a certain saving measure.
- ***Lack of energy group:***
  - need of a cooperation between the municipality employees to form a group of people with different energy interests and skills.

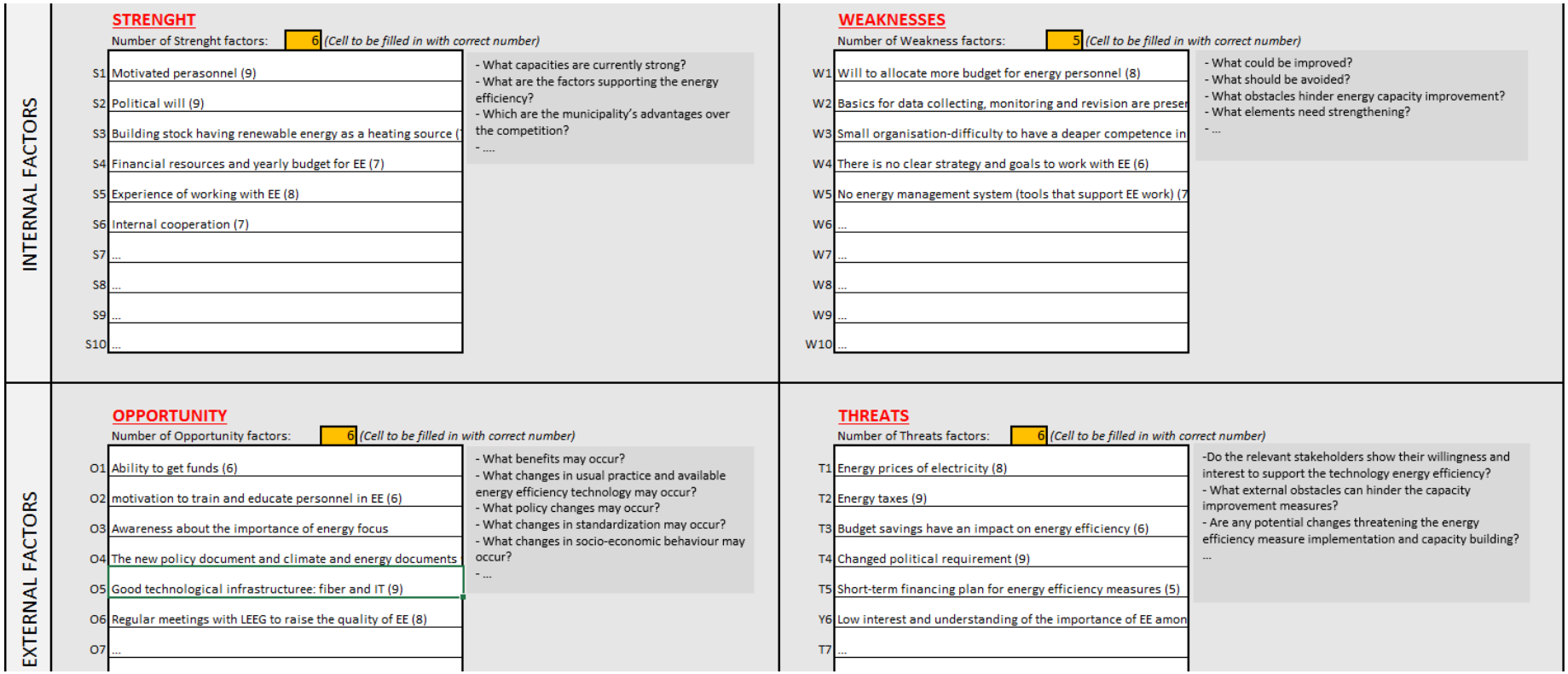
Based on the discussion and main outcomes for the implementation of the GoA2.1 activity the following **plans for the future** has been drafted:

- Work can be improved by adding a group of people with the interest in energy management issues and by giving them financial resources and more skills in the area.

- Develop an energy management system, installation of energy meters; data analysis and energy plan for municipal buildings, energy efficiency guidelines and a plan to develop Mönsterås work with energy efficiency.
- Since energy efficiency issues are not current in the general debate, it is difficult to capture the citizens' interest in the issue. Probably a major national or international initiative needs to be taken to increase awareness.
- A lack of knowledge among users of the building and interest in what renewable energy and energy efficiency means.

The specific **Act Now target groups** has been identified in-terms of: Municipality specialists, energy and building managers, energy working groups and inhabitants.

4.8.2 SWOT Analysis for Mönsterås



4.8.3 Capacity Building Scheme Template for Mönsterås

Capacity Assesment results	capacity lacks/capacity building needs	Aim	Previous Knowledge/lifetime	Learning goals	Adopted tool	Implementation time	Budget	Performers	Responsibility
1 Commitment and management									
	Example "Lack of knowledge about how to organize	Example "Increase knowledge on energy management	Example "energy	Example "1. Structure energy management	Example	spring 2020	Example	Example "Project manager 1	Example "Johny Walker"
1.1 Management Commitment									
Capacity building lack 1.1:A	Energy policy is under development	Clear and specific documented targets	Existing document	Highlight the municipality´s work		2019		Mönsterås Municipality	Mönsterås Municipality and top management
Capacity building lack 1.1:B	Energypolicy is not communicated to the concerned	Everyone should know and work to achieve the goals	Existing document	Highlight the municipality´s work		2019		Mönsterås Municipality	Mönsterås Municipality and top management
Capacity building lack 1.1:C	Energy policy must be revised and updated	Energy policy has to be up to date	Existing document	Highlight the municipality´s work		2019		Mönsterås Municipality	Mönsterås Municipality and top management
1.2 Energy Strategy & Action Plan									
Capacity building lack 1.2:A	Energy Strategy and Action Plan are being updated	Clear and specific documented targets and an action plan	Existing document	Highlight the municipality´s work		2019		Mönsterås Municipality	Mönsterås Municipality and Top management
Capacity building lack 1.2:B	Energy Strategy and Action Plan are not communicated to the concerned	Everyone should know and work to achieve the goals	Existing document	Highlight the municipality´s work		2019		Mönsterås Municipality	Mönsterås Municipality and Top management
Capacity building lack 1.2:C	Energy Strategy and Action Plan have to updated at least once every 3 years	The two documents have to be up to date	Existing document	Highlight the municipality´s work		2019		Mönsterås Municipality	Mönsterås Municipality and Top management
1.3 Mangemant & Stakeholders									
Capacity building lack 1.3:A	Energy management system doesn't exist	Use energy effectively and efficiently	Not existing	Research for suitable systems have started	investigations	2019		LEEG, project managers in Energy agency	Property manager
Capacity building lack/training 1.3:B	ISO 50001 certification doesn't exist	Ensure the quality of the municipality's energy work	Not existing	Create a structured energy management work	Training or recruitment	2019		LEEG	Property manager
Capacity building lack/training 1.3:C	Responsible energy manager doesn't exist	Someone with a specific responsibility and tasks	Someone with energy interest / knowledge	Lead the energy work continously so that is lives further	Training or recruitment	2019		Property manager	Property manager
Capacity building lack 1.3:D	Identify and involve concerned employees	Spread the knowledge to raise awareness/implementation	Someone with energy interest / knowledge	Deeper focus in the energy work	LEEG	2019		Property manager	Property manager
Capacity building lack 1.3:E	Identify and involve concerned stakeholders	Spread the knowledge to raise awareness/implementation	Someone with energy interest / knowledge	Deeper focus in the energy work	LEEG	2019		Property manager	Property manager
2. Energyplanning 2.1 Regulatory Compliance									
Capacity building lack 2.1:A	Communicate any relevant updates of legal (and other) requirements with involved employees	Make sure the right person gets the right information	Someone with energy interest / knowledge - Energy- and komunications knowledge	everyone can get access to relevant information	LEEG	2019		Energi responsible/manager	Property manager
Capacity building lack 2.1:B	Define a clear plan for compliance	Assure quality and follow up for compliance	Someone with energy interest / knowledge - Energy- and komunications knowledge	raise quality for energymanagement work	LEEG	2019		Energi responsible/manager	Property manager
2.2 Monitoring and analyzing energy use									

Capacity building lack 2.2:A	Regular monitoring of energyconsumption is missing	Develop regulations for monitoring and appoint a responsible	Someone with energy interest / knowledge – Energy data collection knowledge	follow up that energy management work goes right and avoid deviations	LEEG	2019		Energi responsible/manager	Property manager
Capacity building lack 2.2:B	Compare energy usage against key figures	Simplify analysis and monitoring	Someone with energy interest / knowledge Energy performance analysis data	introduce a common routine / monitoring method	LEEG	2019		Energi responsible/manager	Property manager
Capacity building lack 2.2:C	Closer review / revision of energy data is desirable	Quickly find errors and discrepancies	Someone with energy interest / knowledge Energy performance analysis data	easier to handle deviations and fix errors	LEEG	2019		Energi responsible/manager	Property manager
Capacity building lack 2.2:D	Routine for reporting energy consumption to management must be developed	Simplify the decision making to management	Someone with energy interest / knowledge Energy performance analysis data	that the management is commited to energy management work and has the knowledge within it	LEEG	2019		Energi responsible/manager	Property manager
Capacity building lack 2.2:E	Document the normal consumption of energy values	Simplify analysis	Someone with energy interest / knowledge Energy performance analysis data	easier to compare energy values	LEEG	2019		Energi responsible/manager	Property manager
Capacity building lack 2.2:F	Compare energy consumption with normal values	Simplify monitoring	Someone with energy interest / knowledge Energy performance analysis data	easier to compare energy values	LEEG	2019		Energi responsible/manager	Property manager
Capacity building lack 2.2:G	Prioritize energy improvement work	Reduce carbon footprint and improve the economy	Mönsterås Municipality	to become an eco and leading municipality on a local, national and international level	cooperation between Mönsterås Municipality and LEEG	2020		Mönsterås kommun and LEEG	Municiplaity management and property manager
2.3 Target settings									
Capacity building lack 2.3:A	Document energy saving goals for buildings	Create clear targets that can be monitored	energy declarations from 2008	documenting measures and monitor energy management work	Meeting with consultant	2019–2020		energy consultant and energy manager	Property manager
Capacity building lack 2.3:B	Ensure that goals are in line with policies and strategies	Make sure that goals are in line with policies and strategies	Mönsterås Municipality energy policy, action plan and strategy document	Ensure that goals are met and revised to be in line with policies and strategies	property department in Mönsterås municipality and LEEG	2019		property department in Mönsterås municipality and LEEG	Property manager
Capacity building lack 2.3:C	Set targets based on energy analysis	Put relevant targets based on an analysis	Mönsterås Municipality energy policy, action plan and strategy document	Ensure that goals are met and revised to be in line with policies and strategies	property department in Mönsterås municipality and LEEG	2019		property department in Mönsterås municipality and LEEG	Property manager
Capacity building lack 2.3:D	Targets are monitored and revised regularly	Ensure that we have the right targets	Mönsterås Municipality energy policy, action plan and strategy document	Ensure that goals are met and revised to be in line with policies and strategies	property department in Mönsterås municipality and LEEG	2019		property department in Mönsterås municipality and LEEG	Property manager
Capacity building lack 2.3:E	Document that the Action Plan is in line with set targets	Assure quality process to set and revise targets	Mönsterås Municipality energy policy, action plan and strategy document	Ensure that goals are met and revised to be in line with policies and strategies	property department in Mönsterås municipality and LEEG	2019		property department in Mönsterås municipality and LEEG	Property manager
Capacity building lack 2.3:F	Make sure that the Action Plan is in line with the targets	Ensure that the action plan will enable achieving the targets	Mönsterås Municipality energy policy, action plan and strategy document	Make sure the Action Plan is in line with the targets	property department in Mönsterås municipality and LEEG	2019		property department in Mönsterås municipality and LEEG	Property manager

Capacity building lack 2.3:G	Update and revise the Action Plan every 2-3 years	Assure the quality of the Action Plan	Mönsterås Municipality energy policy, action plan and strategy document	important to keep the action plan updated with new targets	property department in Mönsterås municipality and LEEG	2019		property department in Mönsterås municipality and LEEG	Property manager
3. Impementation									
3.1 Communication									
Capacity building lack 3.1:A	Communicate strategies, policies and targets to all employees	Ensure that everyone has the right information	LEEG	Everyone should know about the energy management work and should take part of the right information	LEEG	2019-2020		LEEG	Property manager
3.2 Documentation									
Capacity building lack 3.2:A	The core of the energy management is to document how to work with energy management in the municipality	Assure the quality of energy management work	Someone with energy interest / knowledge Energy manager	to document relevant information that everyone can have access to	ISO 500001	2019-2020		LEEG	Property manager
Capacity building lack 3.2:B	Develop and maintain document control procedures	easier to obtain the necessary information	Someone with energy interest / knowledge Energy manager	easier access to the necessary information	LEEG	2019-2020		LEEG	Property manager
Capacity building lack 3.2:C	Document activities related to EnMS	facilitate quality assurance	Someone with energy interest / knowledge Energy manager	ensure that energy management improves the quality of work	LEEG	2019-2020		LEEG	Property manager
3.3 Operational Control									
Capacity building lack 3.3:A	Establish criteria for the use and maintenance of the EnMS	find weak points and possible improvements	Someone with energy interest / knowledge Energy manager	avoid deviations and contribute to development	ISO 500001	2019-2020		Energy manager	Property manager
3.5 Procurement of Energy									
Capacity building lack 3.5:A	Identify appliances that consume much energy	focus on the low hanging fruits and save energy to reduce costs	Someone with energy interest / knowledge Energy manager and LEEG	gain knowledge about how energy can be saved and how the costs can be reduced through the choice of appliances	LEEG/konsult	2019-2020		Energy manager	Property manager
Capacity building lack 3.5:B	Inform that procurements take energy criteria into account	raise the quality and prioritize the energy work	Someone with energy interest / knowledge Energy manager and LEEG	increase the quality of the energy work	Public Procurement Act	2019-2020		Project manager	Property manager
Management Review									
Capacity building lack 3.6:A	Planned audits at least once a year	quality assurance	Someone with energy interest / knowledge	Make sure that the targets are met and revised to be in line with the Action Plan	ISO 500001	2019-2020		LEEG and energy manager	Top management
Capacity building lack 3.6:B	EnMS reviewed by management once a year	ensure that the energy management work has high quality	Someone with energy interest / knowledge	revise targets to be in line with the energy management work	ISO 500001	2019-2020		consultant and top management	energy manager and top management
4. Resources									
4.1 Competence, Training									
Capacity building lack/training 4.1:A	Ensure that LEEG have the right skills for EnMS etc.	ensure that staff have the right skills	Someone with energy interest / knowledge	Get knowledge about how EnMs works in connection with the energy management work	Training/seminar	2019-2020		Energy Agency for Southeast Sweden	Project managers in Energy Agency
Capacity building lack 4.1:B	Clear work descriptions for involved personnel	Clear responsibility and a good division of labor	Someone with energy interest / knowledge Energy manager and LEEG	ensure that the right information is carried out by the right person	communication	2019-2020		energy manager	Property manager
Capacity building lack 4.1:C	Ensure that the employees are aware that there is an EnMS	Employees have to know that we have a systematic approach to work with energy	Mönsterås Municipality	gain a wider expertise in energy management	information campaign	2019-2020		sustainability managers in the municipality	Sustainability department in Mönsterås Municipality
Capacity building lack/training 4.1:D	Identify training needs in the process of energy management	increase skills and eliminate deficiencies in specific areas	Someone with energy interest / knowledge	find relevant training to address deficiencies	training	2019-2020		LEEG	Property manager
Capacity building lack 4.1:E	Increase awareness of EnMS among the municipality's staff and relevant groups	raise awareness among the municiplaity's staff	Mönsterås Municipality	Everyone should know about the energy management work and should contribute to	information campaign	2020		sustainability managers in the municipality	sustainability managers in the municipality
4.2 Financial Resources and Energy Financial									
Capacity building lack/training 4.2:A	Strengthen collaboration / experience with third party financing	Possibilities for financing methods like EPC and LCCA	Not existing	get in-depth knowledge of LCCA in the process of investment	training	2019-2020		Energy Agency for Southeast Sweden and	Property manager
4.3 Human Resources and									
Capacity building lack/training 4.3:A	appoint an energy manager/ responsible	management, development and monitoring of the energy management work	Someone with energy interest / knowledge	contribute to the continuity of the energy management work in the municipality	training/recruitment	2019		HR	Property manager
Capacity building lack 4.3:B	Improve and develop a proper communication method between the municipality's departments regarding the	facilitates the municipality's prioritization of energy management work	Mönsterås Municipality and LEEG	To get the correct division for energy work and cooperation between municipal departments	Mönsterås Municipality and	2020		Mönsterås Municipality and LEEG	Mönsterås Municipality
5. Infrastructure									
5.2 Buildings									
Capacity building lack/training 5.2:A	Smart meters with remote data collection installed in each building	control and measure consumption. Facilitates follow-up and reporting of deviations	Exists in new buildings	gain knowledge of how smart meters should be used for data collection	training and seminar	2021+		installer / service technicians	Property manager
Capacity building lack/training 5.2:B	Install electricity meters	control and measure consumption. Facilitates follow-up and reporting of deviations	Exists in new buildings	gain knowledge of how smart meters should be used for data collection	training and seminar	2021+		installer / service technicians	Property manager
Capacity building lack/training 5.2:C	Installing individual electricity and heat meters in buildings (IMD)	Highlighting energy to create behavior change / engage the public in energy work	Exists in new buildings	Raise the users interest in saving energy and reducing carbon footprint and costs	training and seminar	2021+		installer / service technicians	Property manager
Capacity building lack/training 5.2:D	Install complete measurement systems (EnMS) that are connected to cloud / software for visualization	faster and easier access and storage of data to get a better analysis	not existing	to increase the efficiency and quality of energy management work	training and seminar	2021+		installer / service technicians	Property manager
5.3 Other Public Sectors									

4.9 Municipality of Kaliningrad (associated Partner)

4.9.1 O2.1 output: Kaliningrad

According to the state-of-the-art assessment of the Energy management and energy strategies for Act Now the following main problems were identified:

- ***Lack of financial resources for policy implementation***:
  - Lack of financing of energy saving activities in the municipality and in the municipal enterprises;

  The financing of energy saving measures is formed from the own funds of municipal enterprises, which are clearly not enough.

  - Lack of involvement of financial institutions, private investors and others, as they are not satisfied with the long payback periods of energy-saving projects.

- ***Low ability (capacity) at the top political level and the overall perception in the municipality in terms of policy planning and implementation***:
  - Politicians are aware of the importance of solving climate and energy challenges but their hands are tied due to lack of knowledge, financial and human capacity;
  - The overall attitude and perception about climate and energy challenges in the municipality at the municipality staff level is below average;
  - Climate and energy problems in the municipality at the level of the municipality's staff are perceived as routine work within the framework of implementation of the municipal energy saving program.

- ***Low awareness and involvement of stakeholders and municipality staff***:
  - Low awareness and lack of technical competence about energy management, energy efficiency in buildings, funding sources and financial aspects of climate and energy efficiency projects;
  - Lack of a specific personnel/unit assigned to work with energy efficiency and climate projects, the work is integrated into daily routine of employees of different departments of municipality;
  - There is no more than one specialist employed as an energy manager in the Kaliningrad municipality and at each municipal enterprise responsible for energy and energy management and climate issues;
  - Low motivation and lack of incentives for municipality staff leads to routine approach and not to the approach "depending on the result";
  - Lack of involvement of stakeholders in dialog with municipality especially scientific institutions;

- Lack of unified data processing and tools to provide easy-to-understand information;
- Necessity of conducting tender procedures for the provision of services, where there is no high probability for the interested party to win the tender.

- ***Lack of energy data***
  - Lack of energy metering devices

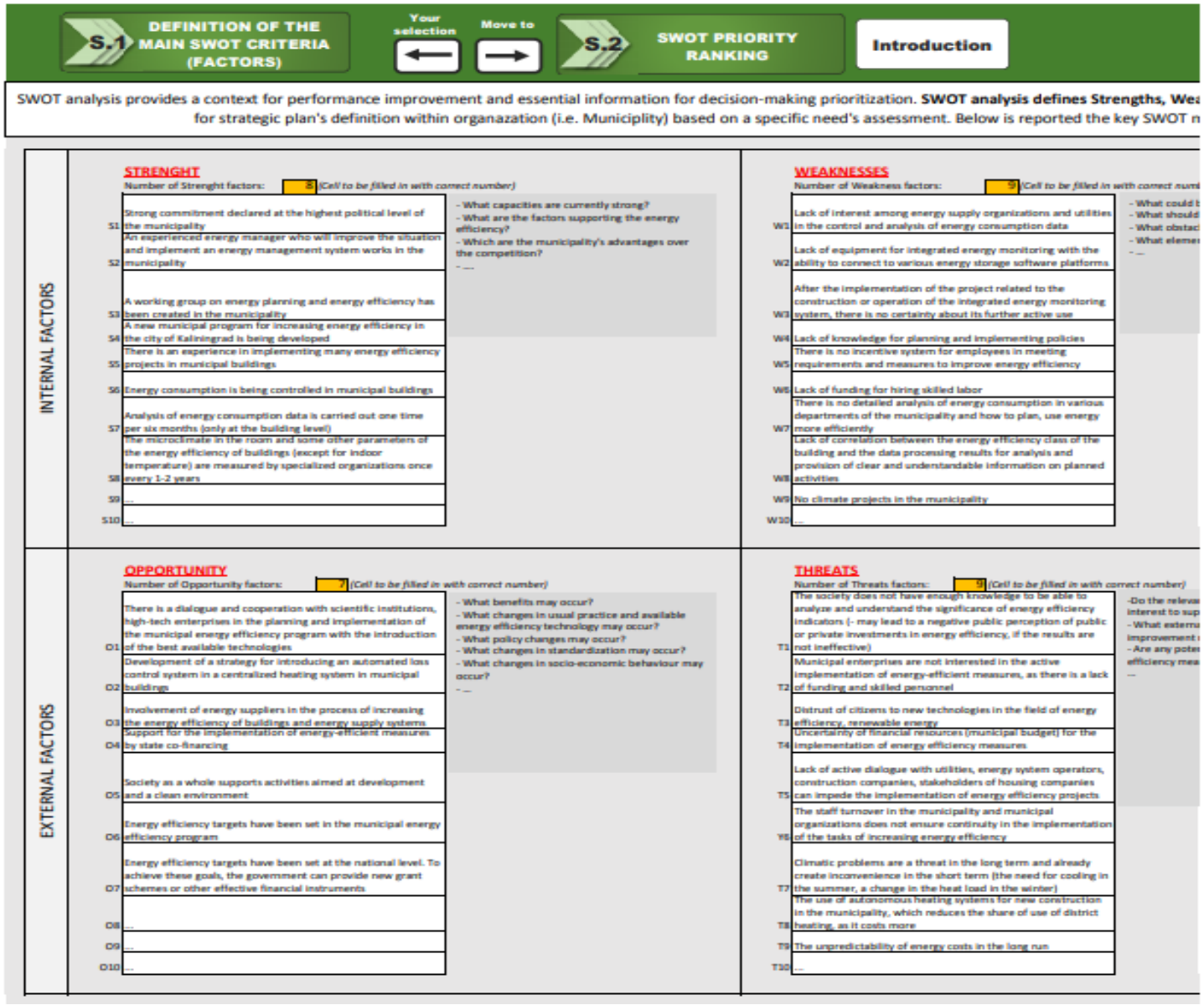
  Currently, the availability of energy metering devices in the municipal infrastructure is estimated at 80% of the required volume, which does not allow for full control of energy consumption and, accordingly, the energy management system is not fully operational.

- ***Building renovation projects:***
  - There is no integrated approach to renovation of buildings, especially in apartment buildings and municipal facilities due to the lack of sufficient funding;
  - Low awareness and knowledge of general public about energy and climate issues.

Based on the discussion and main outcomes for the implementation of the GoA2.1 activity the following **plans for the future** has been drafted: Development and introduction of an energy management system, evaluation of current system conditions; transition to automated metering of energy consumption; the use of modern energy-saving technologies in the implementation of activities; conducting energy surveys of all municipal facilities; assessment of the possibilities of introducing energy service contracts.

The specific Act Now target groups has been identified in-terms of: public utilities, energy system operators, scientific institutions, private investors.

4.9.2 SWOT Analysis for Kaliningrad



S.1 DEFINITION OF THE MAIN SWOT CRITERIA (FACTORS) | Your selection | Move to | S.2 SWOT PRIORITY RANKING | Introduction

SWOT analysis provides a context for performance improvement and essential information for decision-making prioritization. **SWOT analysis defines Strengths, Wea**
for strategic plan's definition within organazation (i.e. Municiplity) based on a specific need's assessment. Below is reported the key SWOT n

INTERNAL FACTORS

STRENGHT

Number of Strenght factors: 8 *(Cell to be filled in with correct number)*

S1	Strong commitment declared at the highest political level of the municipality
S2	An experienced energy manager who will improve the situation and implement an energy management system works in the municipality
S3	A working group on energy planning and energy efficiency has been created in the municipality
S4	A new municipal program for increasing energy efficiency in the city of Kaliningrad is being developed
S5	There is an experience in implementing many energy efficiency projects in municipal buildings
S6	Energy consumption is being controlled in municipal buildings
S7	Analysis of energy consumption data is carried out one time per six months (only at the building level)
S8	The microclimate in the room and some other parameters of the energy efficiency of buildings (except for indoor temperature) are measured by specialized organizations once every 1-2 years
S9	...
S10	...

- What capacities are currently strong?
- What are the factors supporting the energy efficiency?
- Which are the municipality's advantages over the competition?
- ...

WEAKNESSES

Number of Weakness factors: 9 *(Cell to be filled in with correct numb*

W1	Lack of interest among energy supply organizations and utilities in the control and analysis of energy consumption data
W2	Lack of equipment for integrated energy monitoring with the ability to connect to various energy storage software platforms
W3	After the implementation of the project related to the construction or operation of the integrated energy monitoring system, there is no certainty about its further active use
W4	Lack of knowledge for planning and implementing policies
W5	There is no incentive system for employees in meeting requirements and measures to improve energy efficiency
W6	Lack of funding for hiring skilled labor
W7	There is no detailed analysis of energy consumption in various departments of the municipality and how to plan, use energy more efficiently
W8	Lack of correlation between the energy efficiency class of the building and the data processing results for analysis and provision of clear and understandable information on planned activities
W9	No climate projects in the municipality
W10	...

- What could b
- What should
- What obstac
- What elemer
- ...

EXTERNAL FACTORS

OPPORTUNITY

Number of Opportunity factors: 7 *(Cell to be filled in with correct number)*

O1	There is a dialogue and cooperation with scientific institutions, high-tech enterprises in the planning and implementation of the municipal energy efficiency program with the introduction of the best available technologies
O2	Development of a strategy for introducing an automated loss control system in a centralized heating system in municipal buildings
O3	Involvement of energy suppliers in the process of increasing the energy efficiency of buildings and energy supply systems
O4	Support for the implementation of energy-efficient measures by state co-financing
O5	Society as a whole supports activities aimed at development and a clean environment
O6	Energy efficiency targets have been set in the municipal energy efficiency program
O7	Energy efficiency targets have been set at the national level. To achieve these goals, the government can provide new grant schemes or other effective financial instruments
O8	...
O9	...
O10	...

- What benefits may occur?
- What changes in usual practice and available energy efficiency technology may occur?
- What policy changes may occur?
- What changes in standardization may occur?
- What changes in socio-economic behaviour may occur?
- ...

THREATS

Number of Threats factors: 9 *(Cell to be filled in with correct number)*

T1	The society does not have enough knowledge to be able to analyze and understand the significance of energy efficiency indicators (- may lead to a negative public perception of public or private investments in energy efficiency, if the results are not ineffective)
T2	Municipal enterprises are not interested in the active implementation of energy-efficient measures, as there is a lack of funding and skilled personnel
T3	Distrust of citizens to new technologies in the field of energy efficiency, renewable energy
T4	Uncertainty of financial resources (municipal budget) for the implementation of energy efficiency measures
T5	Lack of active dialogue with utilities, energy system operators, construction companies, stakeholders of housing companies can impede the implementation of energy efficiency projects
T6	The staff turnover in the municipality and municipal organizations does not ensure continuity in the implementation of the tasks of increasing energy efficiency
T7	Climatic problems are a threat in the long term and already create inconvenience in the short term (the need for cooling in the summer, a change in the heat load in the winter)
T8	The use of autonomous heating systems for new construction in the municipality, which reduces the share of use of district heating, as it costs more
T9	The unpredictability of energy costs in the long run
T10	...

-Do the releva
interest to sup
- What externa
improvement
- Are any pote
efficiency mea
...

4.9.3 Capacity Building Scheme Template for Kaliningrad

Capacity Assesment results	Capacity lacks/capacity building needs	Aim	Previous Knowledge/lifetime experience	Learning goals	Adopted tool	Implementation time	Budget, Eur	Performers	Responsibility
1. Commitment and management									
Capacity building training 1:A	No written energy policy that has been approved	and management engagement and commitment to energy policy	The previous program "Energy saving and energy efficiency improvement of the municipality" City District "City of Kaliningrad" for 2010-2014 "	Effective energy management	Seminars/workshop/experienc e sharing/field trips	Autumn 2020	0	Project manager/project work group members, stakeholders, City council	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
Capacity building training 1:B	The existing program "Energy Saving and Energy Efficiency Improvement of the municipality" City District "City of Kaliningrad" for 2015-2019 "has a declarative nature	"Energy Saving and Energy Efficiency Improvement of the Municipality" City District "City of Kaliningrad"»	The program "Energy Saving and Energy Efficiency Improvement of the Municipality" City District "City of Kaliningrad" for 2015-2019 "was approved in 2014	Effective energy management	Analysis, seminars	Autumn 2020	10000	Project manager/project work group members, stakeholders, City council	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
Capacity building training 1:C	Lack of external communication to the public about the energy policy of the municipality	To inform the public about the energy policy, the municipal energy saving program, raising awareness of the importance of energy saving measures	The program "Energy Saving and Energy Efficiency Improvement of the Municipality" City District "City of Kaliningrad" for 2015-2019 "was posted on the website of the municipality in 2015	Increased communication on energy management	Seminars and workshops to the public and stakeholders, articles in the local news and media, use of municipality's website	Autumn 2020	2000	Department of Public Relations and Media, Department of the organization of provision of municipal resources	Inna Verbitskaya/Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
2. Energy planning									
Capacity building training 2:A	Lack of data analysis and awareness of energy consumption on an ongoing basis	important factors that increase the energy efficiency of housing and utilities infrastructure through regular analysis, and use energy consumption monitoring data to form energy efficiency targets, their analysis and comparison with current energy consumption indications	Energy consumption is monitored on a regular basis	Carrying out energy consumption analysis, reviewing current situaton and setting targets	Analysis, seminars	Spring 2020	2000	Project manager/project work group members	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
Capacity building training 2:B	Lack of adjustment and formation of new targets based on energy efficiency analysis	To adjust targets to ensure consistency of analysis and energy efficiency	The program "Energy Saving and Energy Efficiency Improvement of the Municipality" City District "City of Kaliningrad" for 2015-2019 "was approved in 2014	consumption in order to set energy consumption targets, new legislative requirements in the field of energy saving	Seminars/workshops/experien ce sharing	Spring 2020	2000	Top management in close collaboration with the local energy management working group and energy manager	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
Capacity building training 2:C	The need to take corrective actions in the implementation of the Program "Energy saving and energy efficiency improvement of the municipality" City District "City of Kaliningrad" for 2015-2019 "	To conduct a regular and documented review and revision of the Energy Saving Program to take corrective actions every year	The program "Energy Saving and Energy Efficiency Improvement of the Municipality" City District "City of Kaliningrad" for 2015-2019 "was approved in 2014	Energy Saving and Energy Efficiency Improvement Program of the Municipality"City District" City of Kaliningrad "for 2015-2019"	seminar/workshop/experience sharing	Autumn 2020	2000	Project manager/project work group members, stakeholders, town council	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov

3. Implementation									
Capacity building training 3:A	Lack of regular internal communication of energy policy, targets and energy performance to all employees of municipal enterprices	To communicate your municipality's energy policy to all employees	Informing about the results of the program "Energy saving and improving the energy efficiency of the municipality" City District "City of Kaliningrad" for 2010-2014 "through the municipal website	Increased employees' awareness and engagement	Regualar seminars and workshops for employees, informaton available and visible to everyone, selected 'champions' in various departments to increase awareness of the energy policy	Spring 2020	2000	Project manager/project work group members, stakeholders, City council	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
Capacity building training 3:B	Lack of analysis of data on energy consumption, lack of human resources and there is no possibility to control the energy consumption in real time in municipal buildings and street lighting	The collected data is not analyzed, and since the data is collected only monthly, it is impossible to estimate the critical points or atypical situations. Monitoring in real time will allow to see the maximum consumption, make comparisons and conclusions about energy losses and ways to save it. This requires certain knowledge and skills	Collected data that has not been analyzed	Regular review and analysis of the collected data and bringing the results to the relevant groups, energy managers of municipal enterprises and organizations.	Seminars, conferences	Autumn 2020	1000	Project manager/project work group members, stakeholders, City council	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
Capacity building training 3:C	Energy management system isn't reviewed by the top management and city council at planned intervals	To ensure the stability, adequacy and effectiveness of the EnMs.	Energy management system are reviewed but not at set intervals	Annual review of Energy management system	Regular meetings of town council committees, annual review of Energy Policy, energy performance and related performance indicators; evaluation of compliance with legal or other requirements, reviewing the objectives and targets, follow-up actions from previous reviews.	Spring 2020	0	Project manager/project work group members, stakeholders, City council	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
4. Resources									
Capacity building training 4:A	Lack of local working group members/ key personnel that have appropriate education and competences to implement energy management and the improvement action plan activities	To identify the training needs and ensure that the current personell have appropriate qualifications, arrange training if needed	The lack of specialists in energy management, in the administration of the municipality of Kaliningrad - only one consultant	Increase current employees' engagement and knowledge of the energy sector	Review of job descriptions,arranging special energy management seminars, conferences, studies, field trips	Autumn 2022	10000	Administration of the city district of Kaliningrad, city council.	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
Capacity building training 4:B	There are no funds from the annual budget intended for projects related to energy saving	Determine the amount of the annual budget to be allocated to projects related to energy saving and increasing energy efficiency	Lack of financial resources from the state budget	Priority Energy Management Projects	Meetings and seminars with representatives of the administration of the municipality of Kaliningrad and the city council	Spring 2020	0	Administration of the city district of Kaliningrad, city council.	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
Capacity building training 4:C	The position of the energy manager is in place, but not filled. There is a consultant acting as an energy manager	To hire an energy manager with the appropriate qualifications and skills	Former energy manager combined this post with an engineer.	Clearly define the job description, promote the role and find the best candidate	Reviewing the specifications of the role, ensuring effective recruitment and selection process	Spring 2020	0	Administration of the city district of Kaliningrad, city council.	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
5. Infrastructure									
Capacity building training 5:A	The absence of individual heat meters in each public or private building (which is planned to be used)	To install an individual heat meter in each public or private building (which is planned to be used)	Insufficient number of individual heat meters and automated heat points installed in the housing stock.	Repair of buildings and their heating system	Renovation programs, private foundations and state support	Autumn 2030	?	Administration of the city district of Kaliningrad, city council.	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov
Capacity building training 5:B	Lack of automated control of energy systems (electricity and / or heat)	To install automated energy management system (electricity and / or heat) in each municipal or residential building	Only some municipal and residential buildings have automated energy management systems	Repair of buildings and their heating system	Renovation programs, private foundations and state support	Autumn 2030	?	Administration of the city district of Kaliningrad, city council.	Alexander Kuptsov/Sergey Rachkovsky/Oleg Zapivalov

5. APPLICATION OF THE CAPACITY SELF-ASSESSMENT TOOL ON THE FIELD AND CRITICALITIES IN THE IMPLEMENTATION

Internal preparations, discussions and information collection were done by all coaching partners before taking a step further with the implementation process of the capacity self-assessment tool with the participants of municipalities/target groups.

Regular meetings where both the coaching partners and the participants met took were regularly held. To asses a specific time for working with the tool could not be easily decided by coaching partners, hence it depends on the discussions and on the current information provided by the participants. The most important measure was to keep the working process with the tool progressively ongoing until the needed information is gathered.

To summarize the coaching partners experiences, it was easy to work with the tool and easy to understand it. There was no translation needed for the tool but however some partners have chosen to do it in order to avoid misunderstandings and to simplify the discussions with the participants. The cooperation between the coaching partner and the participants have simplified the working process a lot since the coaching partner is more familiar with the needed deliverables and has the ability to describe their tasks.

In conclusion, the different and various experiences of the participants from the municipalities/target groups were very helpful to fill in

the tool and to collect the relevant and needed information about the municipalities/target group status. The cooperation between the participants and coaching partners was very smooth and fruitful.

Depending on the information needed and the time to collect the results, the coaching partners have evaluated the overall implementation process as helpful to determine the energy management status in the different municipalities/target groups.

The parts were questions needed to be answered were not complicated to understand but the information gathering process to answer these questions was demanding as it was described by the coaching partners. Since the questions were addressed to different subjects and thus to a group with different experiences it required an effort to gather the needed basis. Therefore, the coaching partners have had several meetings and phone calls with the target groups in order to facilitate the tool implementation process. The number and duration of the meetings depended on each municipality/target group’s access to needed materials.

Even though a new tool was developed with a complimentary segment related to homeowners and some complimentary questions were added to be answered for the home owner segment target group, there was no big change or extra effort that was required to be done by participants; Just some details were only added.

The participants were interested in developing their energy management status and were very committed to answering the tool. There is a high awareness level, relevant ideas to develop further and a good acquaintance with the 2020 and 2030 goals which require an increase in the municipal energy management development and a deeper capacity building.

A part of the capacity self-assessment tool was the SWOT analysis that was experienced as complicated and demanding by coaching partners. A part of the cooperation between the coaching partners and the target group participants was to facilitate the implementation process

of the tool. This remained tricky due to the lack of information provided in the method description of how to evaluate and compare between the SWOT terms. Some terms related to the result of the SWOT were unclear. This was confusing to coaching partners as it was interrupted in different ways.

It was even stated by the coaching partners that the background and the well preparations of the participants have helped in answering the questions in the tool and the SWOT implementation since the participants have showed a strong will and an interest in collecting the information to determine their energy status. The participants have experienced the SWOT as tricky and the SWOT priority ranking as time consuming as well.

As a conclusion, working with WP2 went very well even though postpones and deliverable changes occurred which according to the coaching partners was a bit hard in order to not affect the cooperation between them and the target group participants. The main reason behind the success of the result compiling in WP2 was the effort done by coaching partners to facilitate the tool data collection, good communication and the cooperation between the coaching partners and the target groups during the WP2 period.

6. CONCLUSION AND RECOMMENDATION

In order to improve the working process of WP2, the capacity self-assessment tool focusing on the SWOT analysis could have been introduced into a webinar. This would have helped the coaching partners get a good introduction to the method usage and facilitated answering the questions. As a result, doing improvements already in the start of the work package could have would have saved time. An extra time to translate the tool could have been given to those who need it. One of the main outcomes for a further development of the developed tool is a potential simplification in terms of: selected set of indicators and possibility to transform it in on an online available open source tool available and potential usable from several municipalities.

A detailed case study of the different target groups in the project and the different needs was preferred at the beginning of the ACT NOW projects. At the start of the project, the main target group was municipalities which resulted in that documents and reports were readdressed lately during the project so that they can be adapted other target groups. This could have saved time and the double work could have been avoided as well.

A merge of the capacity building scheme template Excel file and the capacity building scheme suggestion that was added into the new version of the capacity self-assessment tool could have been integrated in a mutual document. This would have given a variety of capacity building schemes suggestions to implement.

REFERENCES

Authenticity Consulting. Online resource, available at: https://managementhelp.org/misc/np-capacity-building-types.pdf

Etongo D., Kanninen M., Epule T.E., Fobissie K. Assessing the effectiveness of joint forest management in Southern Burkina Faso: A SWOT-AHP analysis. Forest Policy and Economics, Vol. 90, 2018, 31-38.

Framework.org. Online resource, available at: https://www.framework.org.uk/wp-content/uploads/Capacity-building-programme-methods-template-signed1.pdf

Gerson, R.F. Performance by Design : The Systematic Selection, Design, and Development of Performance Technologies That Produce Useful Results. HRD Press, 2007.

Kay. M., Franks, T. & Tato, S. 2004. Capacity needs assessment in agricultural water management:Methodology and processes. ICID Workshop on Capacity Needs Assessment, Moscow.

Kurttila M., Pesonen J., Kangas M., Kajanus M. Utilizing the analytic hierarchy process (AHP) in SWOT analysis- a hybrid method and its application to a forest-certification case. Forest Policy and Economics. Vol.1, 2000, 41-52.

Melvyn KAY, Tom Franks , Sonia Tato. Capacity needs assessment methodology and processes. http://www.fao.org/tempref/docrep/fao/008/y5899e/y5899e01.pdf

Pesonen H.L., Horn S. Evaluating the climate SWOT as a tool for defining climate strategies for business. Journal of Cleaner Production, Vol. 64, 2014, 562-571.

Polat Z.A., Alkan M., HicretGürsoySürmeneli. Determining strategies for the cadastre 2034 vision using an AHP-Based SWOT analysis: A case study for the turkish cadastral and land administration system, Land Use Policy, Vol.67, 2017, 151-166.

Reißmann D., Thrän D., Bezama A., Techno-economic and environmental suitability criteria of hydrothermal processes for treating biogenic residues: A SWOT analysis approach, Journal of Cleaner Production. Vol. 200, 2018, 293-304.

REFURB project, http://www.go-refurb.eu/publications/

Samolada M.C., Zabaniotou A.A. Energetic valorization of SRF in dedicated plants and cement kilns and guidelines for application in Greece and Cyprus. Resources Conservation and Recycling. Vol. 83, 2014, 34-43.

Srivastava P.K., Kulshreshtha K., Mohanty C.S., Pushpangadan P., Singh A. Stakeholder-based SWOT analysis for successful municipal solid waste management in Lucknow, India. Waste management. Vol 25, 2005, 531-537.

Smith, D., Bruun-Kiaer, I., Fontana, I., Rosa, M., Rambelli, G., Tsalakanidou, I., De Cunto, A.K., Psarras, I., Papadopulou, A. Sustainable Energy Action Planning: Learning from each other. A Report on Successful Peer-to-Peer working. Experience from the Intelligent Energy Europe projects LEAP, Conurbant, Covenant CapaCITY, CASCADE and eReNet. 2014.

UNDP. 1997, Draft UNDP. Capacity development assessment guidelines 2. Draft Capacity assessment guidelines – the programme approach: assessment and methodologies. Author Thomas Hopkins.