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Local Sustainable Energy Strategies as Opportunity for European Union Regional Development

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The aim of this article is to create the methodology of energy strategies at the local, municipality level and to provide insight into the effectiveness of innovative policies and unique policy design components that can be adopted by other governments, at the local or state levels. The Regional Policy of the EU, also referred to as Cohesion Policy, is a policy with the stated aim of improving the economic well-being of regions in the EU and avoiding regional disparities. The strategy Europe 2020 stresses the so-called 20/20/20 targets.

The paper was prepared using the material, collected and analysed by implementing the Baltic Sea Region 2007–2013 programme project 'Public Energy Alternatives – Sustainable energy strategies as a chance for regional development' (PEA). The novelty of this methodology is in its holistic approach – municipality, community, business and researchers' cooperation is used. In this article, the main stages of a municipal strategy development are analysed and recommendations for regional energy strategy preparation are given.

Keywords: *sustainable development, renewable energy sources, regional strategies.*

1 Introduction

Current approaches to energy are not sustainable enough. Emphatically, energy is directly related to the most critical social aspects affecting sustainable development, such as poverty, jobs, income levels, gender disparity, population growth, agricultural production, climate change, environmental quality and economic/security targets (Peng *et al.*, 2011). It is necessary to pay more attention to the critical importance of energy on all these aspects as the global social, economic and environmental goals of sustainability cannot be achieved without them (Štreimikienė & Mikalauskienė, 2007). One of the key challenges is to realise these goals. Failure to take action will lead to continuing degradation of natural resources, increasing conflicts over scarce resources and widening gaps between the rich and the poor. Implementation of sustainable energy strategies is one of the most important levers in creating a sustainable world (El Bassam *et al.*, 2013). Implementing the appropriate and complementary policy at each level of government, based on each government's competencies, allows for the creation of a synergistic policy environment that addresses multiple barriers to clean energy development. Policy implementation at the local, municipality level can provide insight into the effectiveness of innovative policies and unique policy design components that can be adopted by other governments, at the local or state levels.

Improvement and dissemination of knowledge on the methods (Calvert *et al.*, 2013), policies and technologies for increasing the sustainability of development, taking into account its economic, environmental and social pillars, as well as the methods for assessing and measuring sustainability of development, regarding energy, transport, water and environment systems and their many combinations are the key tools for cohesive development of communities (Duić *et al.*, 2013; Kaygusuz, 2012).

There are still many barriers limiting current and future renewable energy production growth (Doukas, 2013). The main barriers indicated are slow diffusion of recent and current innovations, market incentives and barriers, developer incentives, cost-effectiveness and urban implementation (Walker, 2008). It is important to emphasise that the evolution of policy instruments applied to the environment, social and economic sectors has made a significant influence on sustainable development framing (Zaccai, 2012).

Although the European Union is one of the richest parts in the world, there are large internal disparities of income and opportunity between its regions. Regional policy transfers resources from richer to poorer regions. The argument for regional policy is that it is both an instrument of financial solidarity and a powerful force for economic integration. The Regional Policy of the EU, also referred to as Cohesion Policy, is a policy with the stated aim of improving the economic well-being of regions in the EU and avoiding regional disparities (Peng *et al.*, 2011). More than one-third of the EU's budget is devoted to this policy, which aims to eliminate economic, social and territorial disparities across the EU, restructure declining industrial areas and diversify rural areas which have declining agriculture. In doing so, the EU regional policy is geared towards making regions more competitive, fostering economic growth and creating new jobs. The policy also has a role to play in wider challenges for the future, including climate change, energy supply and globalisation (Atici & Ulucan, 2011).

Nevertheless, strategy Europe 2020 stresses the importance of energy efficiency in the EU more specifically (Baležentis *et al.*, 2011), the so-called 20/20/20 targets, namely a reduction of greenhouse gas emissions (by 20%), an increase in the share of renewable energy (20%), and an increase in energy efficiency, thus, saving up to 20% of energy consumption; the strategy also implies the need for elaborating appropriate policy measures aimed at achieving the aforementioned aims by 2020 (Tolón-Becerra, Lastra-Bravo, & Botta, 2010). Article 4 of the Renewable Energy Directive (2009/28/EC) requires EU Member States to submit national renewable energy action plans and provide detailed road maps of how each Member State expects to reach its legally binding 2020 targets for the share of renewable energy in their final energy consumption.

A very important target in this area is diversification of energy sources and climate change mitigation policies (Lindseth, 2004; Sperling *et al.*, 2011; Tolón-Becerra *et al.*, 2010). The main issues and the background of sustainability in the energy sector are reduction of energy intensity and increasing energy efficiency.

The benefit of these strategies covers not only mitigation of the climate changes, but also improvement in the quality of living conditions in a city and the health of inhabitants. Also, it is very important to implement statements and obligations of the Covenant of Mayors, which cover the aims of sustainable energy development strategies (Sperling *et al.*, 2011). To promote sustainable energy strategies requirements, policy measures, environmental and energy agencies' data were analysed (Lantz *et al.*, 2007). Local policy development allows experimentation as each government creates the policy adopted to the local conditions (Lutsey & Sperling, 2008). In contrast, the policy developed at the state or national level to be implemented by local governments may not provide effective flexibility in the local context (Rammel & Van Den Bergh, 2003). Implementing the appropriate policy at each level, based on each stakeholder's competencies, allows for the creation of a synergistic impact of the policy that addresses multiple barriers to sustainable development. Policy implementation at the local level can provide innovative sight and unique design components that can be adopted at the local or state levels creating the policy (Lindseth, 2004). Moreover, policy development at the local level may be more effective in addressing some barriers because achievement of social acceptance on a smaller scale is easier. It is necessary to create local issue and to increase involvement of local community in the local processes because inhabitants have the ability to be involved in the decision-making process (Busche, 2010). Moreover, business stakeholders cannot make significant influence over local governments and citizens can make influence on policy development at the local level (Byrne *et al.* 2007). The clean energy idea grows in many communities and it makes implementation of sustainable energy policies at the local and national levels easier. It is important to mention that action at the state level is significant, but local governments should make essential impact on the framing of the sustainable energy policy (Štreimikienė & Mikalauskienė, 2007).

The essential principle for local sustainable development (SD) is that municipalities decide themselves on the main targets on which they will focus. Local stakeholders know better where the best chances of successful implementation lie. They can develop environmental and other measures or understand how to adapt the policy to local needs. The fact that municipalities can adapt a local SD policy to their own local environment makes local SD policy specific and valuable. This removes the risk of vagueness and disparity between communities and other stakeholders. Improved social, economic and environmental situations are the points that enter the idea of the sustainable energy strategy and give shape to realistic aims within a clearly defined structure (Peterson & Rose, 2006).

Policy implementation at the local level creates flexibility to understand local needs. Local governments' knowledge can help frame the local discussion covering clean energy, and also demonstrates benefits addressing to local issues (Busche, 2010).

Assimilation of EU structural funds for local projects creates the possibility to address regional disparities and local needs and achieve the main objectives of the European policy more effectively. Therefore, the main strengths are greater

experimentation by a variety of policy makers, large flexibility, better correspondence to specific local needs, citizens' involvement, lower impact of lobbies and better transparency of financial instruments. Several functions of municipalities related to sustainable energy development issues are:

- preparation of programmes related to the development of housing;
- organisation of heating and water supply and wastewater collection and treatment;
- development of municipal waste management, maintenance of municipal buildings, roads and streets of local significance;
- implementation of regional development programmes.

As a result, municipalities play an important role in the energy sector and have the ability to introduce renewable energy systems and increase energy efficiency. Municipalities have opportunities in local energy plans to involve energy-efficient housing, waste collection and management systems, renovation and modernisation of the heating system and renewable energy sources projects (Del Río, 2011). The implementation of efficient street lighting is also an important source of energy savings at the local level. Municipalities have powers in preparation of long-term strategic development plans, detailed master plans and short-term strategic activity plans (Štreimikienė & Mikalauskienė, 2007).

2 Materials and methods

This paper was prepared using the material, collected and analysed by implementing the Baltic Sea Region (BSR) 2007–2013 programme project 'Public Energy Alternatives – Sustainable energy strategies as a chance for regional development' PEA. In total, 21 partners from 6 countries (Estonia, Finland, Germany, Latvia, Lithuania and Poland) around the Baltic Sea together with experts from various scientific areas of expertise analysed what potential energy saving capacities existed that could be added, strengthened and expanded. The project was designed to work out energy strategies for 9 municipalities that would help countries all over the Baltic Sea region and beyond to rethink their energy production, raise awareness of alternative energies and encourage municipalities and regions to meet European energy standards as soon as possible. The strategies are prepared on the basis of existing approaches for energy strategies, regional SWOT analysis, networking with regional, national and transnational business and scientific partners and benchmarking at the European level. The targets are allocated for short-term, medium-term and long-term perspectives. Finally, the activities are added to the targets established. Baltic Energy Strategies for the regions were elaborated and compiled to a set of measures and possible results for other regions in the BSR.

The Law on Energy from Renewable Sources was adopted in Lithuania in 2011. According to this law, all municipalities were obligated to prepare strategies for usage of renewable energy sources in Lithuania. The lack of uniform methodology on preparation strategies existed in that period and still exists. A compilation of paper findings will help to make the possibilities of public energy management visible, help other communities and regions to elaborate their ideas and find their ways into the future with renewable energy and lower energy costs.

3 Results and discussion

3.1 Preparation of sustainable development strategy

In a common approach, each region worked out a strategy that was discussed and enhanced by the partnership in a transnational environment. The strategies are developed through the evaluation of existing approaches towards energy strategies, regional SWOT analysis, networking with regional, national and transnational business and scientific partners as well as benchmarking at the European level. The first step for preparation of an SD strategy is evaluation of the situation in the local environment and region. Self-assessment analysis is based on statistic indicators. The next step is to frame targets for municipalities. The targets are presented for short (5 years), medium (15 years) and long terms (25 years). The flow chart of the framework of local SD strategy development is presented in Figure 1.

The municipality should establish policy guidelines for short-term, medium term, long-term periods, and the framework should cover industry, agriculture and forestry, municipal services, households, transport, local electricity and heat production, as well as waste management. Moreover, local SD plans should cover the areas under jurisdiction of municipalities, establish actions for climate change mitigation and increase energy savings and use of renewable energy sources in these areas (e.g. local road infrastructure, implementation of efficient street lighting, increase in forest area, improvement of a waste management system and use of collected biogas from landfills for energy generation). The national targets for green gas emission (GHG) reduction, energy savings and use of renewable energy sources are presented for the year 2020 and they should be used as the guidelines for establishing targets at the local level.

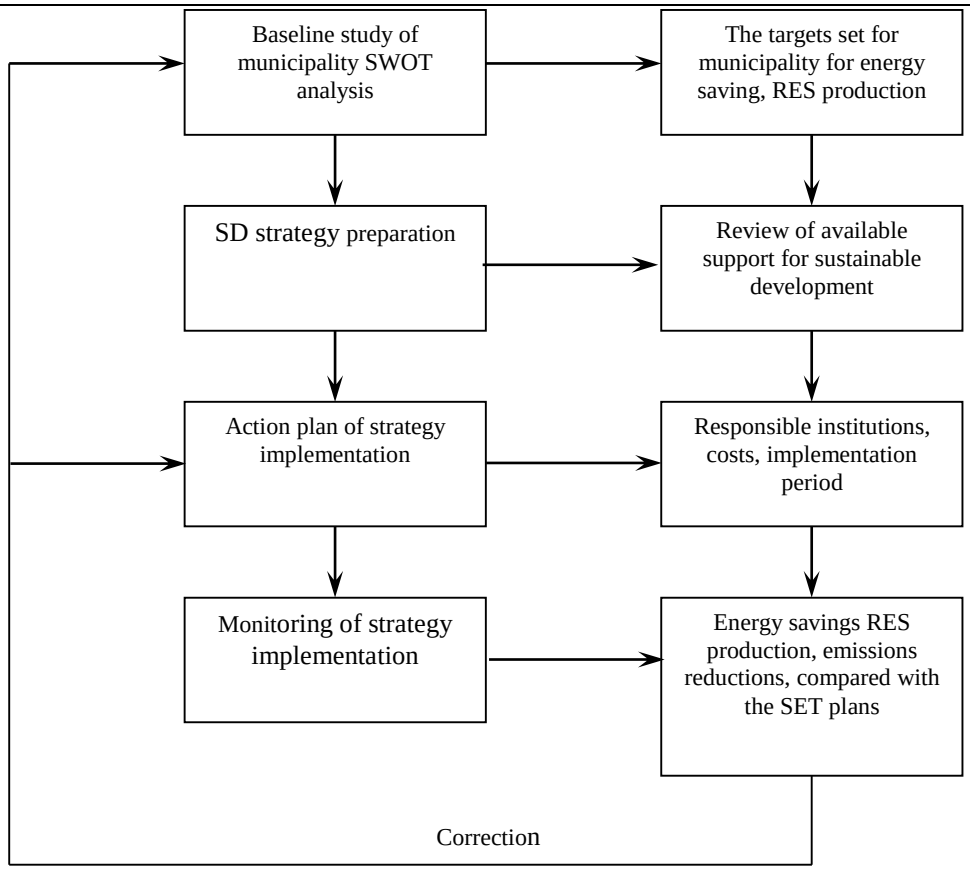

Figure 1. The framework of local sustainable development strategy.

3.2 Management

Within the PEA project, regional energy strategies were elaborated for the following partner regions: RCG Prignitz in Germany, Mustvee, Rauge and Varu in Estonia, Lahti and Ylivieska in Finland, Kraslava in Latvia, Ignalina in Lithuania and Niepolomice in Poland. The main aim of this work was to outline measures and possible results for other regions. The general strategy aims at reduced energy usage and higher added value based on regional resources. Energy efficiency and the use of alternative energy sources are not only technical problems but also strategic ones. It is not enough to say that energy should be saved and new forms of energy production must be considered – the question remains: what can they do to establish themselves as 'Energy Regions', to create new profiles and to get fit for competition in social, political and economic contexts? To simply regard sustainability and self-sufficiency aspects alone is not enough. An energy measure should not only be financeable but also profitable for the region and actors. In this way, the strategy will gain acceptance and support from citizens and, thus, will have increased chances for successful implementation throughout. The main problems result from the high-cost level of most of the measures. Also, not all of the factors and variables can be considered, because there is a limited scope of responsible stakeholders and actors. There are fields like the demographic change or energy price fluctuations, which are very difficult to control. All these problems were tackled in a common but individualised approach, i.e. each region worked out a strategy that, in the course of work, was discussed and enhanced by the partnership in a transnational environment. The strategies were developed through the evaluation of existing approaches towards energy strategies, regional SWOT analysis, networking with regional, national and transnational business and scientific partners, benchmarking at the European level, etc. Developing strategies for sustainable energy consumption and energy production from (preferably renewable) locally available energy sources helps the regions to improve their overall development options as regional development mainly depends on the capacity of innovation and on the readiness to improve and change a given situation. The regional energy strategies of the partner regions demonstrate that there are 3 main requirements to achieve this: raising the awareness of energy problems, working on new financial and management models, and concrete implementation measures.

A regional energy strategy as a document should work on an agreed basis for further development and decision making in the energy sector. Now that the partner regions have compiled their baseline papers and regional energy strategies, a set of recommendations has been compiled as a supporting 'manual' for all those regions which would like to carry out a similar exercise in future.

3.3 Recommendations for regional energy strategy development

The whole process of strategy development can be divided into 5 stages, starting with collection of information and the mapping of a *status quo.* This leads to a gaps analysis, then an estimate for the potential realisation and, finally, results in a detailed action plan for implementing identified preferred measures.

The following diagram illustrates these main components of the development of a regional energy strategy:

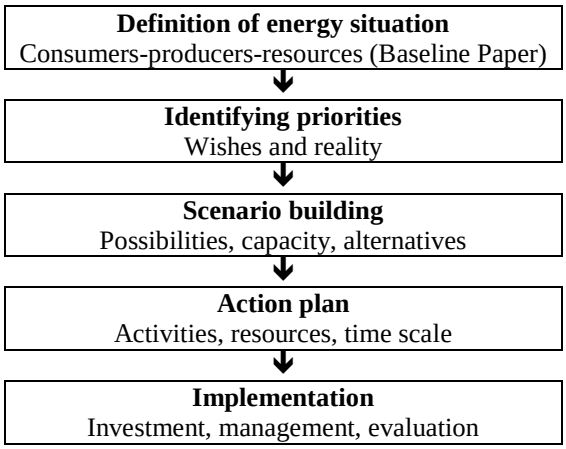

Figure 2. The main stages of strategy development.

3.3.1 Analysis and definition of the energy situation. Preconditions

The reliability of an energy strategy depends on the quality of preliminary work and initial data.

Before an energy balance (energy production and consumption) is drawn up, it is important to think over the preconditions. Before starting the work, the following questions must be answered:

1. Why is it necessary to do the strategy?
2. What was the situation before?
3. Is there enough competence to make the strategy?
4. Is there a team for the task ahead?
5. Is there enough knowledge to ensure that the strategy is prepared properly?
6. Where and how can the necessary demography, housing, energy, fuel, etc. related data be acquired?
7. Will it be possible to collect the necessary data, what kind of data is available?
8. Who are the stakeholders of the region, whose opinion should be considered?
9. Who can help in case of the need for assistance?
10. Are there sufficient finances secured for the development of a strategy?

3.3.2 First activities - baseline paper

The first important steps are a mapping exercise and data collection. Each region that is going to develop a regional energy strategy should prepare a paper on the *status quo* of the region first. This includes general information on the region (location, economic development, demographic development, size and geographic background) and general information on energy issues, such as power capacity, consumption and sources of energy production. It is important to analyse background data, such as reasons for varying energy consumption, the mix and size of energy consumption, etc.

Each region should collect the relevant data (preferably in the form of a SWOT analysis to identify strong and weak points of the region and its potential for future development and identification of planning potentials and threats). The resulting baseline paper is a prerequisite for developing a regional energy strategy.

For the preparation of a comprehensive energy strategy, local regional administration should be checked for the availability of:

1. development plans, decisions concerning the energy sector and earlier local regional development strategies, especially those including the energy sector analysis;
2. legal documents and statistic information;
3. economic analysis information about the land use;
4. other relevant data and documents (available renewable energy sources (RES) and rational use of energy (RUE) potentials).

General advice can be given for the elaboration of a successful energy strategy baseline:

- Professional management actions should be used for active involvement members of the team.
- Reliable data are key in making a reliable strategy. Time invested here is time saved on correction of mistakes later.
- Some examples of high-quality strategies should be studied.
- It is always good to learn from the mistakes of others to avoid yours.

Having collected all the data necessary for further planning, the outcome should be analysed, the resource potential should be estimated, graphics drawn, tendencies analysed and then the following questions should be answered:

1. Does the outcome of the analysis match the expectations?
2. Are the goals for the future realistic? A specialist should be consulted.
3. Is the committed work beneficial?
4. Are there enough people/resources/land/forest to achieve the goals?
5. Are the goals in consistency with national priorities regarding regional development and energy sector?
6. Are there enough funds for achieving the goals? If not, what are the alternative funding sources?
7. Does the idea for the future of the region cope with the needs of the region?

Planning and forecast for a regional energy strategy

Before starting to develop a regional energy strategy, one more critical look should be taken at the outcome of analyses of the collected data. It is very important to understand that some essential information is still missing or some sources of information or members of the community have been neglected. The gaps should be bridged and the work continued.

An appropriate time span for planning and forecasting should be set. Time range allowing the team to cope with the task should be chosen.

Below are the pieces of advice for successful planning and forecasting:

- Planning should be realistic, originating from real data and figures.
- Overestimation and too optimistic figures should be avoided in the forecast.
- All development options should be communicated to local community, involving and listening to them.
- Conflicts with local community should be avoided. Solutions which will not be accepted or which might damage local historic cultural heritage should not be forced.
- Priorities and goals should be revised if necessary.
- A holistic approach should be used for a regional energy strategy.
- Specific situation in the target region should be considered.

3.3.3 Setting objectives and identifying priorities

It is very important to identify clear objectives and priorities. It will give a direction for all stakeholders. A target could be described as greenhouse gas emission reduction to become energy self-sufficient in the long-term period. The main idea of that could be described as work for a better climate to participate in reaching national objectives.

In order to reach all target groups, it is important to raise awareness and readiness to exploit new possibilities. It is also important to consider all stakeholders that take part in the energy strategy:

- government/municipality;
- private actors/consumers;
- local and regional enterprises;
- organisations and associations.

An increase in sustainability in a certain region can only be reached when the strategy includes some essential steps and issues. First, reduction of greenhouse gas emission is of concern. It is important to involve individual emissions of the local community. Also, energy usage has to be reduced and the share of renewable energy increased through the use of local resources. At the end of this process, the goals should be evaluated. In order to set certain goals, it has to be considered whether municipalities cannot achieve objectives on their own. All stakeholders should be involved from the community, business, research area and municipality. Furthermore, objectives should be considered in combination due to the correlation of related aspects.

Criteria to identify a realistic feasibility have to be defined in order to determine the practicability of strategies, and setting criteria will enhance the transparency of the sustainable energy strategy.

The first criterion covers economy. An energy strategy should lead to budget revenue but also keep those benefits within the region and the country.

The second one is the contribution to local socio-economic environment, which is especially important in areas with declining populations and revenue. The idea is that the economic revenue provides mutual benefit for both the economy and the society.

The third criterion is oriented to sustainable development and each stakeholder should be able to evaluate an idea or measure and its effectiveness in terms of contributing to energy objectives. Energy planning might not be the equivalent of a formula, e.g. placing wind turbines within vulnerable landscape may not be sustainable in the long term.

3.3.4 Scenarios and pilot projects

The development of scenarios reveals the impact of a strategy. Scenarios can be worked out on the basis of technical potential, different criteria, and the impact of a strategy that focuses only on one source or a strategy using a combination of sources. A combination of those scenarios is a common practice in the development of energy strategies. Possibilities can also build up on:

- an energy saving scenario;
- a renewable energy scenario;
- a scenario based on the lowest investment costs;
- a scenario based on the lowest energy price for end users;
- the lowest spatial impact;
- the highest level of participation from stakeholders.

Scenarios will clarify the challenges and the processes that project planners will use to facilitate the process of engaging different partners to become involved in sustainable energy planning.

Pilot projects can serve as a basic line, to explore in the case of uncertainty or gain support by setting a small but convincing example for comparison. It could also be used to indicate or benchmark certain indicators. In some environments, pilot projects work as a teaser to attract awareness and create further demand. A pilot project can also be the first part of a series of steps

and may create the required basis for starting another activity under improved conditions.

There is a difficulty and hazard regarding pilot projects and their comparability, as conditions may vary over time. If a topic becomes unattractive during the implementation of a pilot project, the implementation could suffer as a consequence. If the findings of a pilot project are not as convincing as hoped for, often mechanisms and dynamics may develop on besides the rationale of it. These 2 situations are difficult for a project to control and need to be included in the scenarios to prepare for appropriate and satisfactory reactions.

3.3.5 Development of an action plan

In order to ensure sustainability and durability of regional energy strategies, it is important to work out action plans for implementation. This will include elaboration of concrete work, definition and identification of actors and partners for regional implementation processes, setting the time frame and correspondences for different actions and defining the financial conditions (investments, rewards, expectations and thresholds). As for establishing an energy region certain preconditions are necessary, it is clear from the start that not all partner regions and municipalities are able to reach this status. However, efforts will be made to create regional/local profiles on energy-related topics that will help the respective partner(s) to find ways for a sustainable and future-oriented development, but also to scale individual involvement and contribution for efficiency.

A further important part of action plans should be the activation of relevant public and political actors beyond the group of upfront participants. All these actors should be involved in decision-making processes and should be enabled to contribute with their own ideas and express their resentments.

Implementation also includes multiple and significant financial aspects. In general, investments should be conducted in order to provide the basis for implementation, and they need to follow standards of procurement and transparency, wherever public money or public bodies are involved. Search for and commitment of investors should be professionalised and made available for overall economic development of the regions. In the end, agreements for co-investments of municipalities and private investors should be explored, e.g. in the form of public private partnerships. Options and possibilities should be identified and documented and experiences shared and discussed with project partners. Know-how transfer should play an important role. Eventually, all these activities should lay the grounds for investments and pilot projects and smoothen the way for other fields of actions, too, e.g. by attracting to think in parallels and similarities of the best practice.

Raising awareness of energy topics for municipalities and regions is one of the main aims of the action plan. This is also true for implementation strategies – it will not be enough to elaborate strategies on what could be done; it is also important to show how it can be done. The key aspect is communication on various levels. It needs to be stressed that the key to successful communication and final adoption of the efforts (a kind of a success story) has to do with a sophisticated communication plan and structure. While the action plan, and especially the action, is closely followed and positive events along implementation are to be wished for, communication also has a role to reveal and alarm in the event of shortcomings and to report and document how any mischief was overcome. Therefore, while this aspect dominates, it plays a vital role to enable and secure progress and success throughout all 5 steps.

3.3.6 Implementation

For the implementation process to work out well, with control and continuation secured, it is important to have full-time staff allocated (preferably not e.g. a politician, who might lose his/her constituency during the lifetime of a project). The strategy itself should be reviewed and reconfirmed periodically, best once a year. The change in relevant indicators should be observed. If needed, the action plan has to be adapted. For any change to the layout, specialists and local stakeholders should be involved. Before large-scale investments are made, different opportunities and several offers have to be considered. Since the strategy concerns the development of the environment and the social community of the region, up-to-date information and professionals on the required field must be utilised.

If full investment cannot be made right away, a step-by-step approach should be used. Everything done should have considerable outcomes and impact. Advice can be the following:

- to secure communication between stakeholders;
- investments are easier to be proven if one can refer to ‘best practices’.

4 Conclusions and recommendations

A specific energy strategy is transferrable in principle, but not likely 1 to 1. Therefore, a universal energy strategy for all regions does not exist. It is important to understand that the strategy has to adjust the specific energy situation and the peculiarities in the target region and has to integrate all participating stakeholders (government, private actors/consumers, local enterprises, organisations and associations).

Furthermore, the following aspects of advice should be considered for developing an individual energy strategy: have a multidimensional and holistic approach; base it on a long-term strategy, stakeholder commitment and political consensus; raise awareness in the population; the strategy must be financeable and realistic.

Reasonable and feasible goals on reducing energy usage should be defined in order to meet the target of wider schemes like national and European energy strategies. The energy strategies should be

elaborated at the regional and local level, which makes a broad involvement of public and private experts and stakeholders necessary. All actors involved in producing the strategies and all potential levels and organisations for implementing them must be involved at an early stage of a project. Stable regional networks should be developed. This will only be possible through constant and transparent communication; all activities and plans need to be discussed not only in expert rounds but should be made known to a broader interested public. Participation processes need to be moderated in order to not only integrate everyone concerned at appropriate prioritisation, but also to make use of the information and input that comes from outside core groups working on the strategy. A regional energy strategy should consider the specific situation in a region.

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Darnios energetikos strategijos – kaip galimybė Europos Sąjungos regioniniam vystymuisi

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Straipsnio tikslas yra sukurti metodiką, leidžiančią įgyvendinti darnios energetikos strategijas vietiniu, savivaldybės ir nacionaliniu lygiu, siekiant efektyviau diegti inovatyvias politikos priemones bei komponentus. Šis tikslas atitinka Europos Sąjungos regioninę politiką bei Europos Sąjungos strategiją „Europa 2020“, kurią įgyvendinant užtikrinama geresnė ekonominė ir socialinė aplinka bei mažinama atskirtis tarp regionų.

Tyrimas buvo atliktas remiantis Baltijos jūros regiono programos (Baltic Sea Region 2007–2013 programme) „Energetikos alternatyvos visuomenei“ (PEA) projekto įgyvendinimo metu surinkta medžiaga. Atliktame darbe buvo taikoma darnios energetikos strategijų rengimo metodika, kurios pagrindinis bruožas yra holistinis požiūris, atsirandantis bendradarbiaujant savivaldybėms, bendruomenėms, verslui bei tyrėjams. Straipsnyje yra analizuojami pagrindiniai darnios energetikos strategijos įgyvendinimo žingsniai bei pateikiamos tokios strategijos rengimo rekomendacijos.

Raktiniai žodžiai: *darnus vystymasis, atsinaujinantys energijos šaltiniai, regioninės strategijos.*