

PROGRESS REPORT ON THE FOURTH YEAR'S IMPLEMENTATION

EU Strategy for the Danube Region

Priority Area 2

["To encourage more sustainable energy"]

co-ordinated by the Czech Republic and Hungary



30th June 2015

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1. EXECUTIVE SUMMARY

The energy landscape of the region has gone through important changes in the last year, effected by both political and economic developments. The Russia-Ukraine crisis, the cancellation of big pipeline projects like South Stream and Nabucco, collapse of oil prices, the revolution in renewables technology, new European Parliament and new Commission with an Energy Union Strategy launched in early 2015, among others, have all impacted the energy markets of the Danube Region either directly or indirectly. In the context of the previous efforts as well as these recent developments, the activities of Priority Area 2 “To Encourage More Sustainable Energy” (PA2) of the EU Strategy for the Danube Region (EUSDR) carried out between June 2014 and June 2015 have been marked by double focus: **strategic level** and **project level**.

In response to the energy security concerns resulting from the severe situation in Ukraine since the end of 2013 and also as a reflection to the Energy Union strategy launched by the European Commission in February 2015, the Priority Area has put significant emphasis on dealing with energy security, the gas markets and the gas infrastructure of the region. First, the Steering Group of the Priority Area has accepted a **Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on Energy Security** in July 2014, in which the Danube Region countries stated that the persistent vulnerability of the Danube Region resulting from energy dependency remains a challenge and declared their determination to closely cooperate on the issue of energy security in the spirit of solidarity. The PA2 has also contributed to mapping out the current energy landscape of the Danube Region by preparing and/or publishing analyses on natural gas reverse flows, security of supply, obstacles to the natural gas market integration, energy markets transparency and decarbonisation. The analyses undertaken had shown that even though much progress has been made when compared to the 2009 situation, the Danube Region still remains one of the most vulnerable from the whole Europe in terms of energy security and that there is still a need to proceed with the diminishment of the remaining obstacles (political, infrastructural as well as commercial) to integrated energy market. The Priority Area also aims to accelerate its efforts in diversification of energy supply routes and sources and join Member States’ efforts in achieving the 2030 targets. The published analyses provide the decision-makers of the Danube Region with accurate and reliable data analysis on the current energy set-up as well as on possible scenarios of future developments in order to provide sufficient base for their decision-making for the alignment of their national and local energy policies for secure, sustainable, affordable and efficient energy in the region.

In order to disseminate the results and to initiate a macro-regional debate, the PA2 has organised a **Stakeholder Seminar** in May 2015 in Brussels with nearly 100 energy experts from more than 20 countries. The event also served to give a closer insight to the representatives of the European Union on what is happening currently in the Danube Region and to demonstrate how the Energy Union concept could deliver benefits to the region. The Seminar has shown that the Danube Region is being more widely accepted as an important regional cooperation mechanism. Based on the discussions, the Steering Group members of PA2, representing the 14 countries of the Danube Region Strategy have accepted a **Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on the Energy Union** in June 2015 in which they stressed the importance of enhanced regional cooperation and declared their support to fully-integrate the energy markets of the Danube Region.

To find answers to the changing environment brought by the above mentioned developments and also to support the region in getting prepared to the new challenges, the Priority Area has been continuing to give its support to several regional projects as well as multiplying examples of good practises and bringing them to the macro-regional level.

In the reporting period the Priority Area received nearly 50 applications of well-prepared and smart project proposals for the funding scheme of seed money facility of START¹. Two projects - **DanReGeotherm**², dealing with geothermal energy and **SMEP**³, supporting municipal energy policy development were chosen by the Steering Group to receive funding. The Priority Area has also identified several project proposals which aim to contribute to the fulfilment of its targets and supported those project proposals in their bid for funding by issuing letters of recommendation. Moreover it assisted with the establishment of project consortia which would bring concrete projects with clear impact to the people in the region such as: (i) **DANUBIOM**⁴ based on the Danube Region Biomass Action Plan, (ii) (**REPLAN**)⁵ supporting planning and implementation process to improve the territorial utilization of renewable energy potential and (iii) **RECROS (RESTAR)**⁶ focusing on providing the municipalities and managing authorities with tools to assess local sources of renewable energy.

The Priority Area also continued its **cooperation with other macro-regional strategies**. The PA2 has invited the representatives of the new Adriatic-Ionian Strategy to its 10th Steering Group meeting in May 2015 to present their future plans and was invited to the next Thematic Steering Group Meeting of the ‘Connecting the Region’ pillar to Belgrade in July 2015 to present its activities.

Despite those achievements and contributions to the Action Plan of the Strategy, there are many challenges lying ahead of the Priority Area, namely the future implementation of the Energy Union. The Priority Area has a great potential to take the opportunity and to contribute by great deal to the achievement of energy secure, sustainable and resilient Europe by supporting the implementation of the proposal at the (macro) regional level. To fulfil this potential, however, the member states of the Strategy shall foster their joint efforts, because only via coherent, mutually supportive and realistic initiatives the EU Strategy for the Danube Region can make a difference in the energy field.

2. IMPLEMENTATION

2.1. Policy development

Energy is of a great importance not only to the Danube Region but also to the entire European Union. As such, the Priority Area has a great potential to become a platform for discussion and knowledge exchange of various stakeholders and to address energy challenges, such as high energy prices, competitiveness, households’ expenditure, energy security and environmental sustainability, which the region is facing today. To tackle those issues the Priority Area has focused on the coordination of regional energy policies as well as on support of the launch of cutting edge-technology developments aiming at energy efficiency and the use of renewable energy sources. This three-fold approach is represented in several initiatives carried out between June 2014 and June 2015.

¹ START – Danube Region Project Fund

² DanReGeotherm-DATA - Data support for the enhanced use of deep geothermal energy in the Danube Region (Geothermal)

³ SMEP - Sustainable municipal energy policy (RES & EE)

⁴ DANUBIOM – Improving sustainable bioenergy use with multinational co-operation in the Danube region

⁵ REPLAN - Facilitate Renewable Energy Transition by Advanced Planning

⁶ RECROS – Renewable energy crossborder strategy, later renamed to RESTAR

Influencing the policy-makers

All activities of the Priority Area have in a certain way been linked to influencing policy-makers at various levels. The projects RECROS (RESTAR), REPLAN, DANREGEO THERM and DANUBIOM strive for influencing local decision-makers in the field of using renewable sources of energy for increased energy efficiency, sustainability as well as security (e.g. municipalities or managing authorities in various regions of the Danube Region). The *Natural Gas Reverse Flows in the Danube Strategy Region - Current State and Outlook* and *Potential for integration of gas markets in the Danube Region: Case studies of Austria, Czech Republic and Slovakia* published in April 2015 and their recommendations have alongside the 2nd Stakeholder's Seminar, which took place in May 2015, played important role in initiating a joint thinking of the EUSDR Member States about the current energy issues.

Energy Union as a challenge and opportunity ahead

Significant developments occurred in the Union's as well as world's energy sector. Given the Energy Union concept presented, the escalated tensions in the Eastern neighbourhood of the EU and the broader acceptance of the need for decarbonisation of the world's economy, the Priority Area has initiated a macro-regional debate on the challenges and opportunities related to these issues. The 10th Steering Group meeting and the 2nd Stakeholder's Seminar in May 2015 meant a significant step for the Member States of the Strategy to reach a joint position regarding their role in the implementation of the Energy Union proposal at the macro-regional level as well as to achieving the 2030 targets.

To provide basis for a fruitful discussion, detailed analyses by the Regional Centre for Energy Policy Research (*Natural Gas Security of Supply in the Danube Region*, *Natural gas market integration in the Danube Region*, *Towards the European Energy Union: Decarbonisation in the Danube Region*) as well as the case studies of the Centre for Energy Studies and the Institute of Energy Economics (*Natural Gas Reverse Flows in the Danube Strategy Region - Current State and Outlook* and *Potential for integration of gas markets in the Danube Region: Case studies of Austria, Czech Republic and Slovakia*) were presented.

In the debate and in the subsequent *Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on the Energy Union* the Member States of the Priority Area agreed that the Strategy should play an important role in the implementation of the Energy Union Package, especially with the focus on the regional cooperation. The Priority Area also agreed that affordable, safe, competitive, secure and sustainable energy shall be ensured to consumers in the region. Furthermore the debate underlined that there are still many obstacles related to the integration of the market and diversification of energy routes and sources alongside the missing infrastructure (e.g. the Austria-Slovakia, Germany-Austria, or Croatia-Hungary interconnections). However, it is strongly suggested that firstly the current grid should be examined, existing reserves should be identified and storage capacity for gas and improved utilization of the existing infrastructure should be strengthened. These steps should precede building a new infrastructure and should be accompanied by striving for higher attractiveness of infrastructure projects to ensure the higher volume of investments. When considering the completion of the integrated single energy market, the key priority for this achievement should be enforcement of already adopted regulatory framework. The related issues of greater transparency (while guaranteeing the confidentiality of commercially sensitive information), solidarity and trust among the Member States as well as their neighbours are also desirable. However, it was noted that it is necessary that the EU and non-EU Member States of the Strategy join their efforts, especially concerning the climate and energy challenges, for example by engaging all stakeholders in the implementation of different energy efficiency measures at all levels.

Lessons learnt and future challenges

Priority Area has successfully initiated the macro-regional debate on the most current energy issues. It has managed to create a joint definition of its role in the coming implementation of the Energy Union proposal. Due to the debate and the undertaken analyses, the countries of the Danube Region have a good overview of the current energy situation and also the potentials, challenges and threats to the region. In the upcoming reporting periods the Priority Area will have to work on dissemination of the acquired evidence and on bringing this knowledge to real use. Last but not least, it shall continue to transform the knowledge to real and concrete projects and initiatives.

2.2. Progress by target

“Achievement of national targets based on the Europe 2020 climate and energy targets”

Associated Actions:

ACTION GROUP 8-11-16

ACTION 8 – To extend the use of biomass (e.g. wood, waste), solar energy, geothermal, hydropower and wind power

ACTION 11 - To explore the possibility to have an increased energy production originating from local renewable energy sources to increase the energy autonomy

ACTION 16 - To facilitate networking and cooperation between national authorities in order to promote awareness and increase the use of renewable energies

ACTION 10 – To implement the National Renewable Energy Action Plans and to prepare a Danube Region Renewable Energy Action Plan

ACTION GROUP 12-13

ACTION 12 – To develop a comprehensive action plan for the sustainable development of the hydropower generation potential of the Danube River and its tributaries (e.g. Sava, Tisza and Mura Rivers)

ACTION 13 - To develop and set up pre planning mechanism for the allocation of suitable areas for new hydro power projects

ACTION GROUP 14-17

ACTION 14 – To promote energy efficiency and use of renewable energy in buildings and heating systems including by renovating district heating and combined heat and power facilities as required by Energy Performance of the Buildings Directive and Renewable Energy Directive

ACTION 17 - To provide local authorities, businesses and citizens in the Danube Region consultative support with issues relating to mitigation of climate change and energy efficiency”

ACTION 15 – To encourage the Energy Community members/ observers in adopting and implementing the Renewable Energy Directive

Encouraged by the success of the niche analysis ‘Danube Region Biomass Action Plan’ assessing the biomass potential, legal framework and regulatory environment of biomass utilization in the Danube Region, the Priority Area and Szent István University prepared a macro-regional project (DANUBIOM) with 15 partners from the Region to promote the sustainable development of the bioenergy market and to propose necessary harmonization of relevant policies. As decided by the consortium, the DANUBIOM project will be submitted to the Danube Transnational Programme in September 2015. In preparation for the application the next work package leader meeting will be held in Budapest in July 2015. Several partners from the DANUBIOM consortium established a project to “Facilitate Renewable Energy Transition by Advanced Planning” (REPLAN). REPLAN aims at supporting planning and implementation processes to improve the territorial utilization of renewable energy resources through a range of innovative approaches and by building on the support and experiences of partners from more developed regions, with high level of renewable energy utilization, implementing best practices that contribute to the mitigation of climate change. In April 2015 the REPLAN project proposal, with 9 partners from 5 Danube countries and with 2 other EU Member States, was submitted to the Central Europe Programme.

The Danube Region Geothermal project (DanReGeotherm), aims at creating a uniform and transparent pool of geothermal database for the entire Danube Region which would contain all necessary geological and geothermal data, as well as information on the regulatory, economic, social and environmental aspects of geothermal utilization in the EUSDR countries in order to attract investors. Preparatory work with EUR 44.000 budget has started in 6 countries, mainly from South-East Europe in April 2015, due to support from the START call of the Danube Region Strategy. The DanReGeotherm project proposal will be submitted to the Danube Transnational Programme in September 2015. On 5th May 2015 an application for the South Hungarian Enhanced Geothermal System Test Programme (SHEGST) was submitted by Mannvit Kft. to the EU Horizon 2020 programme. The project will be implemented at the project site of the South Hungarian EGS Demonstration Project, which is currently funded by the NER300 grant scheme⁷. The objective of the new project SHEGST is to reduce cost of Enhanced Geothermal System (EGS) power production by increasing the performance of near-commercial scale technologies used for the creation of EGS well fields.

The Priority Area and the Czech Life Sciences University in Prague, Faculty of Agrobiological Sciences, Food and Natural Resources is preparing the RECROS (RESTAR) project which aims at tackling the absence of a tool for the regional evaluation of the renewable energy sources. The project aims at creating a common tool which will enable Danube Region countries to assess the local sources of renewable energy and also to provide recommendations on how their utilization, especially at the local/municipal level. The project will apply for financing in the autumn of 2015 from the newly established Danube Transnational Programme or other EU funds.

In order to contribute to Action 12-13 closer cooperation with the International Commission for the Protection of the Danube River (ICPDR) was initiated by EUSDR PA2. Represented by Mr Raimund Mair, the ICPDR introduced the *Guiding Principles for Sustainable Hydropower Development in the Danube Basin* to the 9th Steering Group Meeting of PA2 in December 2014 in Budapest. The process to develop guiding principles was launched in 2011 by ICPDR and the guidelines were adopted in June 2013 with the aim of integrating environmental aspects in the use of existing hydropower plants, including a possible increase of their efficiency, as well as in the

⁷ NER 300 is one of the world's largest funding programmes for innovative low-carbon energy demonstration projects. It is funded from the sale of 300 million emission allowances from the New Entrants' Reserve set up for the third phase of the EU emissions trading system.

planning and construction of new hydropower plants. The Czech translation of the *Guiding Principles* is already available. The planned next steps are to exchange experience and to organize regular follow-up workshops.

Climate change confronts us with serious environmental scenarios and an uncertain future, therefore mitigating its adverse effects and reducing GHG emissions is a fundamental issue. The fight for reducing carbon dioxide emissions cannot be fought and won without renewable energy systems. The Sustainable Municipal Energy Policy (SMEP) project, which received funding from the START seed money facility call of the Danube Region Strategy, aims at supporting a sustainable municipal energy policy and stabilizing municipal energy costs in Eastern Europe with a software application and methodological support. The project aims at providing municipalities with energy planning & management tools and assistance in development of specifically adjusted energy action plans (long-term concept; strategies) to improve the level of energy saving and use of RES. The first phase of the project, which started in April 2015, concentrates on identifying the current state of energy planning and use of strategic energy plans in municipalities.

“Remove existing bottlenecks in energy transport in countries of the EU Strategy for the Danube Region in order to allow reverse flow of gas by 2015”

Associated actions:

ACTION 1 – To develop a joint position of the region regarding the changes which could be introduced in the framework of the TEN-E policy review and the modalities of the new Energy Security and infrastructure instruments, especially regarding the energy infrastructure gaps.

ACTION 3 – To enforce regional cooperation with a view to develop and implement the North-South gas interconnection projects

ACTION 4 – To develop gas storage capacities

The Priority Area continued developing a joint position of the Danube countries in terms of gas, as the developments at the EU Eastern border in July 2014 have highlighted the importance of energy security. In order to express the common standpoint of the region, the 8th Steering Group meeting has unanimously adopted the *Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on Energy Security* in Prague on 9th July 2014 and committed itself to be actively involved in the energy security debate. Members of the Steering Group also declared their determination to closely cooperate on the issue of energy security and to revert to this issue at the next meetings.

The Priority Area significantly contributed to form the joint position of Danube countries in connection to the Energy Union strategy of the European Commission and on the most needed gas infrastructure developments by developing numerous analyses including the “*Natural gas market integration in the Danube Region*”, “*Natural Gas Security of Supply in the Danube Region*”, “*Natural Gas Reverse Flows in the Danube Strategy Region – Current State and Outlook*” or the “*Potential for integration of the gas markets in the Danube Region: Case studies of Austria, Czech Republic and Slovakia*”. To provide discussion forum for the results derived from the analyses, on 20th May 2015 the Priority Area organised 2nd Annual Stakeholder Seminar “Towards the European Energy Union” with the participation of almost 100 energy experts from the Danube Region and all Europe in Brussels. The Seminar was preceded by the 10th Steering Group Meeting of PA2 on 19th May, incorporating the presentation of the relevant analyses on its agenda. In light of the two-days program, with the aim to underline the utmost importance of the joint position reached by the Danube Region countries, the Steering Group of the Priority Area adopted the “*Declaration of the*

EU Strategy for the Danube Region Priority Area 2 Steering Group on the Energy Union” on 11th June 2015.

“Strengthen cooperation of the Energy Community countries with international financial institutions to upgrade the EC countries’ energy infrastructure and energy markets by 2015”.

Associated actions:

ACTION GROUP 2-5

ACTION 2 – To ensure that actions are coherent with the general approach of the Energy Community and explore synergies between the Energy Community and the Danube Strategy processes”

ACTION 5 – To tap possible cooperation opportunities with the Energy Community”

The Energy Community (EC) Secretariat and the countries of the Energy Community (Bosnia and Herzegovina, Moldova, Montenegro, Serbia and Ukraine) are actively involved in the initiatives of the Priority Area. The Priority Area puts a great emphasis on including the EC-countries in the projects being developed in the Danube Region.

So far the PA2 could experience a very good participation of the EC-countries at its Steering Group meetings; at least 3 EC countries were always participating and at the 9th SG meeting all of them were represented. The most active countries in this regard are Serbia and Moldova. The Priority Area is supporting the presence of the Energy Community countries by reimbursing the travel and accommodation costs for the Steering Group member or his/her substitute.

The Priority Area has also covered the EC-countries in its analyses which were finalized during the last year, namely in the *Danube Region Energy Markets Transparency Analysis*, in the *Natural Gas Reverse Flows in the Danube Strategy Region - Current State and Outlook* and in the *Energy Union analyses* which were presented at the 2015 Stakeholder Seminar of the Priority Area. In order to ensure coherence with the Energy Community, the Deputy Director of the Energy Community (Mr Dirk Buschle) was invited to the seminar to present his opening remarks and to participate in the panel on energy security.

2.3. Key actions/projects

ACTION 1 – To develop a joint position of the region regarding the changes which could be introduced in the framework of the TEN-E policy review and the modalities of the new Energy Security and infrastructure instruments, especially regarding the energy infrastructure gaps.

ACTION 2 – To ensure that actions are coherent with the general approach of the Energy Community and explore synergies between the Energy Community and the Danube Strategy processes”

ACTION 3 – To enforce regional cooperation with a view to develop and implement the North-South gas interconnection projects

ACTION 5 – To tap possible cooperation opportunities with the Energy Community”

ACTION 8– To extend the use of biomass (e.g. wood, waste), solar energy, geothermal, hydropower and wind power

ACTION 11 - To explore the possibility to have an increased energy production originating from local renewable energy sources to increase the energy autonomy

ACTION 15 – To encourage the Energy Community members/ observers in adopting and implementing the Renewable Energy Directive

ACTION 16 - To facilitate networking and cooperation between national authorities in order to promote awareness and increase the use of renewable energies

ACTION 17 - To provide local authorities, businesses and citizens in the Danube Region consultative support with issues relating to mitigation of climate change and energy efficiency

The Priority Area continued developing a joint position of the Danube countries in terms of gas, as the developments at the EU Eastern border in July 2014 have highlighted the importance of energy security. In order to express the common standpoint of the region, the 8th Steering Group meeting has unanimously adopted the *Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on Energy Security* in Prague on 9th July 2014 and committed itself to be actively involved in the energy security debate. Members of the Steering Group also declared their determination to closely cooperate on the issue of energy security and to revert to this issue at the next meetings.

The PA2 also significantly contributed to form the joint position of the Danube countries in connection to the first (“energy security, solidarity and trust”), second (“a fully integrated European energy market”) and fourth (“decarbonisation of the economy”) dimensions of the Energy Union strategy of the European Commission. The Priority Area developed analyses including the “*Natural gas market integration in the Danube Region*”, “*Natural Gas Security of Supply in the Danube Region*”, “*Natural Gas Reverse Flows in the Danube Strategy Region – Current State and Outlook*”, the “*Potential for integration of the gas markets in the Danube Region: Case studies of Austria, Czech Republic and Slovakia*” and the “*Decarbonisation in the Danube Region*”.

To provide a discussion forum for the results derived from the analyses, the Priority Area organised 2nd Annual Stakeholder Seminar “Towards the European Energy Union” on 20th May 2015 with the participation of almost 100 energy experts from the Danube Region and all Europe in Brussels. In order to ensure coherence with the Energy Community, the Deputy Director of the Energy Community (Mr Dirk Buschle) was invited to the seminar to present his opening remarks and to participate in the panel on energy security.

The Seminar was preceded by the 10th Steering Group Meeting of PA2 on 19th May, with the involvement of nearly all Energy Community countries of the EU Strategy for the Danube Region (with the exception of Ukraine), incorporating the presentation of the relevant analyses on its agenda. In light of the two-days program, with the aim to underline the utmost importance of the joint position reached by Danube countries the Steering Group of the Priority Area adopted the “*Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on the Energy Union*” on 11th June 2015.

3. GOVERNANCE

The last reporting period has been marked by the strengthening of the efforts of the Priority Area coordination countries to improve the existing mechanisms of coordination of the implementation of the Strategy as well as improving the overall governance of the Priority Area. This counts mainly the field of alignment of activities of the coordinating countries including improved communication and regular inter-Priority Area reporting and information sharing.

3.1. Functioning of the Priority Area Coordinators

In the reporting period the Czech coordination aimed to strengthen its role as the Priority Area Coordinator in order to become partner for the well-established Hungarian coordination. This shift in the Czech coordination has also been supported by a gradual improvement of the communication mechanism between both coordination sides through timely exchange of views and information and setting up regular and formal means of communication at the strategic level which serves for alignment of the efforts of both coordination sides in the implementation. To ensure alignment with the key events of the EU Strategy for the Danube Region, the Czech and Hungarian coordination have decided to hold regular strategic meetings (either in person or via videoconference) to ensure that the actions taken by the Priority Area correspond with the overall agenda of the rotating presidency (now Baden-Württemberg) of the Strategy nowadays and also in the following years. Consequently, the Priority Area has experienced changes in terms of strategic leadership as well as day-to-day implementation.

In personnel terms the Priority Area has experienced changes at the Priority Area Coordinators level. The Czech PAC Priority Area Coordinator Mr Vladimír Bláha has been succeeded by Ms Markéta Ročejdlová in February 2015 and the Hungarian Priority Area Coordinator Ms Anita Orbán has been replaced by Mr Pál Ságvári in April 2015.

3.2. Governance - Steering Group meetings

Since June 2014 the Priority Area has held three Steering Group meetings. The Czech coordination hosted the 8th Steering Group meeting in Prague on 9th July 2014. Apart from the update on the progress made with the Danube Region Biomass Action Plan, the Danube Region Smart Grid Concept and the Danube Region Geothermal Concept, new projects were presented, namely the REMIT aiming to analyse the effects and implementation of the Regulation on the Energy Market Integrity and Transparency in the Danube Region Countries and the project RESTEP focusing on optimisation of the renewable energy investment planning in the region. More importantly a *Joint Declaration* was endorsed by the Steering Group to enhance cooperation in order to improve energy security and infrastructure of the region, as well as to strive for a well-functioning energy market with the integration of the non-EU Member States of the Danube Region Strategy. The adoption of a joint declaration was a major milestone for an enhanced future cooperation between the Danube Region countries.

The 9th Steering Group meeting was hosted by the Hungarian coordination in Budapest on 4th December 2014 with a record number of members being present from 13 countries and regions of the Strategy. Participating representatives well received the results of the START project fund pre-selection alongside the progress made with projects with the Danube Region Biomass Action Plan and the Danube Region Geothermal Concept. The 9th Steering Group meeting also showed further analysis conducted within the scope of the Priority Area in the field of mapping the energy potential of the region with the *Natural Gas Reverse Flows in the Danube Strategy Region - Current State and Outlook* and the *Danube Region Energy Markets Transparency Analysis* presented.

Influenced by the idea of placing the 2nd Annual Stakeholder Seminar “Towards the European Energy Union” at the attention of EU policy-makers, the Priority Area has decided to align the venue and agenda of its 10th Steering Group Meeting in order to ensure the highest possible involvement of its members in the negotiations touching upon most burning energy issues of their region. To pave the way towards the seminar, members of the Steering Group took note of the presentation by the director of the Regional Centre for Energy Policy Research and the energy expert of the Office of the Government of the Czech Republic on three out of five pillars of the European Energy Union Package, namely (1) security of supply, (2) market integration and (3)

decarbonisation. As a follow-up to the two-day program, members of the Steering Group reviewed and adopted in June 2015 the “*Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on the Energy Union*” reflecting the common position of Danube Region countries in the above matters. As part of the dissemination of tangible results generated by the Priority Area, the document has been handed over to Mr Maroš Šefčovič, Vice-President of the European Commission, and submitted to Mr Dominique Ristori, Director-General of DG ENER. Besides strengthening unity among the Danube countries, the 10th Steering Group Meeting endeavoured to establish synergies with other macro-regional strategies. With particular regard to the overlap between the areas covered by the two strategies, Priority Area 2 of EUSDR invited the representative of the recently launched EU Strategy for the Adriatic-Ionian Region to participate in its 10th Steering Group Meeting. Future challenges, such as the preparation for the Annual Forum, the launch of the new governing body of EUSDR, the Danube Strategy Point or new calls of the seed money facilities START and TAF DRP were also highlighted in the program of the 10th Steering Group Meeting. The Stakeholder Seminar and the 10th Steering Group meeting were hosted by the Permanent Representation of Hungary in Brussels.

3.3. Visibility

Apart from the regular meeting of the Steering Group, the Priority Area has undertaken further efforts to achieve greater awareness about its actions and results as publicity measures are important to achieve proper visibility for the Priority Area. In addition to the re-print of its previous publications in December 2014 (*Danube Region Biomass Action Plan, Danube Region Geothermal Report, Renewable Electricity Market Monitoring in the Countries of the Danube Region, Danube Region Smart Grid Concept*), two new publications (*Natural Gas Reverse Flows in the Danube Strategy Region - Current State and Outlook* and *Potential for integration of gas markets in the Danube Region: Case studies of Austria, Czech Republic and Slovakia*) have been published at the Priority Area website.

The achievements of the Priority Area have been further presented by Mr Szilárd Árvay at the 4th Danube Region Business Forum in November 2014, at the SET-Plan Conference - *Driving the Energy Transition Together: Research & Innovation for the Energy Union* in December 2014; at the *Workshop on the European Research Infrastructure Consortium (ERIC) in the frame of Danube INCO.Net project* in February 2015; at the *International Workshop Connecting Smart-Cities-Initiative and the European Strategy for the Danube Region* in February 2015; at the *Geothermal Energy Days* in May 2015 and at the *Technology Challenges and Regional Approaches for integrating Renewables and Energy Security conference* in May 2015. Greater attention to the PR and visibility was identified as a priority at the national level, especially at the Czech coordination side, which has been preparing a new Czech language website focusing solely on the Strategy.

To foster a more effective implementation of the Strategy and to ensure that all relevant stakeholders of the Priority Area receive continuous, reliable and up-to-date information regarding the most crucial issues to be addressed at regional level, as well as to provide a more sustainable platform to promote niche analyses developed in the frame of PA2 work, the Priority Area moved its official English website (www.danube-energy.eu) from GroupSpaces to another service provider in February 2015.

3.4. Engagement of stakeholders

With regards to the engagement of the stakeholders in the Priority Area activities, the coordination has made great progress due to the Stakeholder Seminar “*Toward European Energy Union*”, which was held in Brussels on the 20th May 2015. The aim of the event was to present a detailed analysis on the potential the Energy Union concept could bring for the Danube countries. The debate was

structured around the analyses elaborated by the *Regional Centre for Energy Policy Research (REKK)* in Budapest, as well as the *Center for Energy Studies and the Institute of Energy Economics* in Brno. The analyses also provided further discussion grounds thereof. The seminar attracted many experts across the Danube Region as well as high-level speakers, namely Ambassadors Mr Jakub Dürr, Mr Olivér Várhelyi and Mr Pál Ságvári, the Deputy Director of the Energy Community, Mr Dirk Buschle and Mr Dominique Ristori, Director General of DG ENER. The seminar has not only been successful in promoting the work of the Priority Area to a great number of relevant stakeholders in Brussels, but also in engaging the stakeholders in the strategic debate of the Priority Area. While the Energy Union proposal poses a significant challenge, but also provides an opportunity for the EU as well as for all Danube countries, the Priority Area decided to hold a macro-regional debate to identify potential common benefits resulting from the Energy Union concept for the countries involved. The Stakeholder Seminar and the debate during the 10th Steering Group meeting on this topic were of great significance for the Priority Area in order to build a joint position which created a basis for the *Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on the Energy Union* and later presented to the DG ENER, DG ENV and DG REGIO and relevant stakeholders.

Increased level of stakeholders' engagement was also recorded at the national level in the case of the Czech coordination. A Czech national round table on the Priority Area 2 was organized and took place in Prague on 9th April 2015. The debate mainly focused on the challenges of the Danube Region in the context of the presented Energy Union and helped the Czech coordination to identify possible national priorities related to the proposal and the Priority Area.

3.5. Lessons learnt and future challenges

Despite the many qualitative changes in the Priority Area governance, there is still room for improvements; especially in terms of the engagement of all stakeholders where the coordinating countries will need to strengthen their efforts in bridging the gaps between the member states of the Strategy and to keep its focus and relevance. Especially in the light of the Energy Union proposal and planned further steps, the Priority Area has to find a way how to overcome current energy obstacles in the region and how to bring results to the regional level of the Energy Union. To ensure ownership of the projects, the Priority Area will have to ensure high level of stakeholders' participation from all Member States of the Strategy. Furthermore, to continue its significant work and results, the Priority Area needs to keep its expectations on its activities realistic and feasible (both technically and financially) as the Strategy is no magical remedy that offers solution to all challenges in the region. Given the need to respond to the Energy Union proposal while staying realistic in its goals, the Priority Area should take the advantage of the option of the current targets revision. The Priority Area witnessed changes in the Steering Group member representation, some of which proved to be more time demanding which resulted in the new Steering Group member not being appointed in a timely manner to participate in the Steering Group Meeting. Therefore the process of delegation and the responsibilities should be clearly set to avoid such situations.

4. FUNDING

Projects concerning energy, which are also goals of the Priority Area, very often require great amount of various financial resources (European Union's financial instruments, state or private resources). This poses certain limitation to the scope of projects, which could be potentially carried out within the framework of the Strategy. However, focusing on projects with concrete results, the Priority Area has made effective use of the past funding opportunities available and it should take further steps to become more competitive in obtaining other project-based sources resulting not only from the DANUBE Transnational Programme, but also from other EU financial instruments such as CEF and other various transnational programmes.

4.1. Utilization of the Technical Assistance Grant

The current Technical Assistance fund granted to the Priority Area has been a substantial source for implementation, including crucial support for governance and administration of the Priority Area. Between June 2014 and June 2015, the Technical Assistance Grant has been utilized to cover part of the costs of the human resources at both Czech and Hungarian coordination sides, including the cost of travel and accommodation related to the meetings of the EUSDR such as the meetings of Priority Area Coordinators, Annual Forum, etc. The financial assistance in the form of the Technical Grant has been crucial in relation to the expenditure related to the organisation of the Steering Group meetings. Not only does the grant allow the Priority Area Coordinators to ensure that the Steering Group meets twice a year, but more importantly, it enables the coordinators to support the non-EU members of the Steering Group in participating personally. During the last three Steering Group meetings, the Czech coordination covered the travel and accommodation expenditures for those members of the Steering Group, who are from non-EU member states.

Apart from supporting the governance/administration-related costs the current Technical Assistance Grant has been used to cover the costs related to the achievements of the Priority Area's targets and fulfilment of the Action Plan. In the reporting period, analyses like *Danube Region Geothermal Report*, the *Natural Gas Reverse Flows in the Danube Strategy Region - Current State and Outlook* and *Potential for integration of gas markets in the Danube Region: Case studies of Austria, Czech Republic and Slovakia* have been published, which have further contributed to the mapping of the current situation in the energy sector in the region.

The Priority Area has, among others, also financially supported the establishment of the DANUBIOM, REPLAN and RECROS (RESTAR) project consortia. The DANUBIOM project proposal, hosted by the Hungarian coordination, has been launched at a one-day workshop held in Budapest on 13th November 2014. Participants from about 30 institutions and organisations across the Danube Region were present. The concept of the project, which is based on the results of the Danube Region Biomass Action Plan, has been further developed during the meeting in Prague on 6th March 2015 and was financially supported by the Czech coordination. The RECROS project, which kick-off workshop was hosted by the Czech coordination in Prague on 30th April 2015, aims at creating a tool and common strategy for the assessment of the use of renewable energy sources with special emphasis to the environment in the Danube Region.

With the aim to ensure continuous, reliable and up-to-date information to all relevant stakeholders the Priority Area moved its official English website (www.danube-energy.eu) from GroupSpaces to another service provider in February 2015.

4.2. Mobilisation of relevant funds

By supporting above-mentioned projects with their consortia establishment and project proposal development, the Priority Area strives for high quality projects generation which would make impact at the macro-regional level in the energy field. The consortia created are to submit (or already submitted) their proposals to calls of transnational or cross-border financial instruments. The REPLAN project has applied for the Interreg CENTRAL EUROPE call in April 2015 and DANUBIOM, DANREGEO THERM and RECROS (RESTAR) aim for submissions to the DANUBE Transnational Programme call in the autumn of 2015. However, the Priority Area does not limit its support to the projects contributing to its targets to establishment of project consortium, but it also seeks other opportunities. The Priority Area keeps identifying possible funding opportunities and informs its stakeholders about the calls via the Steering Group members' mailing lists, or its website. Furthermore, Priority Area issues letters of recommendation to projects contributing to the Action plan and applying for various funding opportunities such as Interreg

CENTRAL EUROPE and HORIZON 2020, namely *Encouraging farmers and foresters in the Danube Region to produce non-food bioenergy or bioenergy carriers alongside food, feed and other bio-based products, Danube RESTEP, Western Balkans Excellence for a Biobased Economy and South Hungarian Enhanced Geothermal System Test Programme.*

The Priority Area has been also actively taking part in the first call of the START seed money facility, which took place in the second half of 2014. The Priority Area Coordinators have pre-selected, on the bases of previously defined criteria (e.g. project relevance for the Priority Area, professional experience with the application, partnership relevance or well-defined project objectives). There were 18 pre-selected project proposals from 58 applications relevant for the Priority Area. Finally, project proposals DanReGeotherm DATA, focusing on data support for the enhanced use of deep geothermal energy in the Danube Region and SMEP aiming at identifying current state of energy planning and use of strategic energy plans in municipalities received funding. The implementation of those projects started in spring 2015. For the second call of START and TAF-DRP facilities launched in May 2015 the Priority Area has decided to restrict the thematic areas of the proposals to energy sustainability and efficiency in order to maximise the number of projects contributing the its related targets. The project proposals assessment is going to be carried out during the second half of 2015. Finally, the projects' implementation will start at the end of 2015 and beginning of 2016.

4.3. Lessons learnt and future challenges

In the next reporting period the Priority Area has to face the challenges of decreased financial resources allocated to its implementation, concerning administration/governance costs in particular. The Technical Assistance Grant has been the most important source of financial resources for the Priority Area coordination and the Strategy implementation in the terms of ensuring the high level of participative governance within the Priority Area as well as related to the Strategy itself. Consequently, to keep such a high level of involvement and quality of results in the context of decreased financial resources might pose a challenge for the coordinating countries. Additionally, Priority Area has to actively gather information on the funding opportunities available while sharing that information with all stakeholders to support project development contributing to the Action Plan. Given the recent preference to synergetic use of available resources and their efficient use however, the Priority Area should not only gather the information on available financial instruments, but should also increase its efforts to explore the possibilities of various financial instruments apart from the DANUBE Transnational Programme, such as the CEF, HORIZONT 2020 or other regional financial programmes. To be able to succeed with projects within the high competitiveness, the Priority Area needs to support the development of projects of high quality and which are of added value across borders. That can be achieved also by exploring the synergies with other relevant international or regional organisations or agreements such as the Energy Community, Carpathian Convention, or even other EU macro-regional strategies as well as other Priority Areas. Horizontal cooperation will pose big challenges but also opportunities for the Priority Area 2 to find space for joint projects in the energy field.

5. ANNEX 1: ROADMAPS TO IMPLEMENT EACH ACTION

5.1. Action 1-3-4

Action - “To develop a joint position of the region regarding the changes which could be introduced in the framework of the TEN-E Policy review and the modalities of the new Energy Security and Infrastructure Instrument, especially regarding the energy infrastructure gaps”

Action - “To enforce regional cooperation with a view to develop and implement the North-South gas interconnection projects”

Action – To develop gas storage capacities

PCI projects are under assessment in the second cycle of TEN-E. The Priority Area continued developing a joint position of the Danube Region countries in terms of gas, as the developments at the EU Eastern border in July 2014 have highlighted the importance of energy security. In order to express the common standpoint of the region, the 8th Steering Group meeting has unanimously adopted the *Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on Energy Security* in Prague on 9th July 2014 and committed itself to be actively involved in the energy security debate. Members of the Steering Group also declared their determination to closely cooperate on the issue of energy security and to revert to this issue at the next meetings.

In connection to this and with the aim of contributing to the discussion on the Energy Union strategy of the European Commission, the Priority Area addressed the issues of gas infrastructure development and well-functioning of gas markets by developing numerous analyses including the “*Natural gas market integration in the Danube Region*”, “*Natural Gas Security of Supply in the Danube Region*”, “*Natural Gas Reverse Flows in the Danube Strategy Region – Current State and Outlook*” or the “*Potential for integration of the gas markets in the Danube Region: Case studies of Austria, Czech Republic and Slovakia*”. To provide discussion forum for the results derived from the analyses, on 20th May 2015 the Priority Area organised 2nd Annual Stakeholder Seminar “*Towards the European Energy Union*” with the participation of almost 100 energy experts from the Danube Region and all Europe in Brussels. The Seminar was preceded by the 10th Steering Group meeting of PA2 on 19th May, incorporating the presentation of the relevant analyses on its agenda. In light of the two-days program, with the aim to underline the utmost importance of the joint position reached by Danube Region countries the Steering Group of the Priority Area adopted the “*Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on the Energy Union*” on 11th June 2015.

5.2. Action 2-5-15

Action - “To ensure that actions are coherent with the general approach of the Energy Community and explore synergies between the Energy Community and the Danube Strategy processes”.

Action - “To tap possible cooperation opportunities with the Energy Community”.

Action - “To encourage the Energy Community Members/observers in adopting and implementing the Renewable Energy Directive”.

The Energy Community Secretariat and the countries of the Energy Community (Bosnia and Herzegovina, Moldova, Montenegro, Serbia and Ukraine) are actively involved in the initiatives of

the Priority Area. The Priority Area puts a great emphasis on including the EC-countries in the projects being developed in the Danube Region.

The EC-partners in the planned DANUBIOM project, which is addressing the biomass sector in the region, are the *University of Novi Sad (RS)* and the *Serbian National Biomass Association (RS)*. In the planned geothermal project DanReGeotherm, *NTEC – Society for R&D in the field of new technologies (BA)*, *Geological Survey of Federation of Bosnia and Herzegovina (BA)*, *University of Belgrade (RS)*, *AGES – Association of Geophysicists and Environmentalists of Serbia (RS)* and the *National Academy of Sciences of Ukraine (UA)* are project partners from the Energy Community. The DanReGeotherm project has received support from the START fund, therefore preparatory work with an EUR 44.000 budget has started with the involvement of two partners from EC-countries (*Geological Survey of Federation of Bosnia and Herzegovina* and the *University of Belgrade*) in April 2015 in order to gain information on data availability and acquisition.

The EC-countries are also actively participating in the PA2 Steering Group meetings; at least 3 EC countries were always present and at the 9th SG meeting all EC-countries were represented. The most active countries in this regard are Serbia and Moldova. The Priority Area is supporting the presence of the Energy Community countries by reimbursing the travel and accommodation costs for the Steering Group member or his/her substitute.

The Priority Area has also involved EC-countries in its analyses which were finalized during the last year, namely in the *Danube Region Energy Markets Transparency Analysis*, the *Natural Gas Reverse Flows in the Danube Strategy Region - Current State and Outlook* and the *Energy Union analyses* presented at the 2015 Stakeholder Seminar of the Priority Area. In order to ensure coherence with the work of the Energy Community, the Deputy Director of the Energy Community (Mr Dirk Buschle) was invited to the Seminar to present his opening remarks and to participate in the panel on energy security.

5.3. Action 7

Action - “To build a working relationship with the Central Eastern European Forum for Electricity Market Integration; this could be enlarged to neighbouring countries.

The Priority Area has been following since the beginning the developments in the interconnected Czech-Slovak-Hungarian daily electricity market (known as CZ-SK-HU Market Coupling) as the initiative of the Central Eastern European Forum for Electricity Market Integration. The Market underwent a significant change in 2014, due to the extension of the integrated Czech-Slovak-Hungarian day-ahead spot electricity markets to include the day-ahead spot market in Romania as of 19th November 2014. The integration of these four markets based on implicit allocation of cross-border capacities (Market Coupling) represents an important milestone in the creation of a single European electricity market.

In order to create a single energy market, building of the missing cross-border infrastructure and implementation of a competition-focused regulation are fundamental. In addition to those an efficient single market with reliable price signals and a satisfactory level of liquidity can only be achieved through non-discriminatory access to the energy data and relevant market information. In line with the Action Plan of the Danube Region Strategy, the aim was to establish an integrated and well-functioning market for energy. This should include better coordination of national energy strategies, measures to promote diversity of supplies and measures to improve the functioning of the energy market, an adequate legal framework, financial schemes based on public-private partnerships etc. The ‘*Danube Region Energy Markets Transparency Analysis*’ (DREMT) developed by the Priority Area in October 2014, aimed at giving an in-depth assessment of the

current state of play of the Danube Region countries in terms of energy transparency, progress made in policy implementation or the identification of possible areas for further improvement at regional and national level. The authors of the analysis gave recommendations for the transparency of the gas and the electricity markets.

5.4. Action 8-11-16

Action - “Action - “To extend the use of biomass (e.g. wood, waste), solar energy, geothermal, hydropower and wind power.”

Action - “To explore the possibility to have an increased energy production originating from local renewable energy sources to increase the energy autonomy”

Action - “To facilitate networking and cooperation between national authorities in order to promote awareness and increase the use of renewable energies”.

Encouraged by the success of the niche analysis ‘Danube Region Biomass Action Plan’ assessing the biomass potential, legal framework and regulatory environment of biomass utilization in the Danube Region, the Priority Area and Szent István University co-organized a biomass workshop for the **DANUBIOM** project on 13th November 2014 in Budapest with nearly 30 institutions from 7 Danube Region countries. Based on the inputs of DANUBIOM Workshop, the project concept is now ready and the project consortium was formed with 15 project partners. The focus of the macro-regional project is to define criteria of an environmentally sustainable and energy efficient bioenergy utilization in the Danube Region and rank most common technologies according to their sustainability performance, assist the development of a sustainable bioenergy infrastructure with a well-functioning bioenergy market and propose necessary harmonization of policies. As a second step, work package leaders of the consortium gathered in Prague in March 2015 with the aim of finalising details of the work packages defined at the early stage of the concept. As decided by the consortium, the DANUBIOM project will be submitted to the Danube Transnational Programme in September 2015. In preparation for the application the next work package leader meeting will be held in Budapest in July 2015.

Several partners of the DANUBIOM consortium developed a project to “Facilitate Renewable Energy Transition by Advanced Planning” (REPLAN). **REPLAN** aims at supporting planning and implementation processes to improve the territorial utilization of renewable energy potentials through a range of innovative approaches and by building on the support and experiences of partners from more developed regions, with high level of renewable energy utilization, implementing best practices that contribute to the mitigation of climate change. In April 2015 REPLAN project proposal, with 9 partners from 5 Danube Region countries and with 2 other EU Member States, was submitted into the Central Europe Programme.

The Danube Region Geothermal project (DanReGeotherm), aims at creating a uniform and transparent pool of geothermal database for the entire Danube Region which will contain all necessary geological and geothermal data, as well as information on the regulatory, economic, social and environmental aspects of geothermal utilization in the EUSDR countries in order to attract investors to the participating countries. In April 2014, preparatory work with EUR 44.000 budget has started in 6 countries, mainly from South-East Europe, in April 2015, due to support from the START call of the Danube Region Strategy. The DanReGeotherm project will be submitted to the **Danube Transnational Programme** in September 2015.

On 5th May 2015 an application for the **South Hungarian Enhanced Geothermal System Test Programme** (SHEGST) was submitted by Mannvit Kft. to the EU Horizon 2020 programme. The

project will take place at the project site of the South Hungarian Enhanced Geothermal Systems Demonstration Project, which is currently funded by the NER300 grant scheme. The objective of the new project SHEGST is to reduce cost of Enhanced Geothermal System (EGS) power production by increasing the performance of near-commercial scale technologies used for the creation of EGS well fields.

The Priority Area and the Czech Life Sciences University in Prague, Faculty of Agrobiological Sciences, Food and Natural Resources co-organized a one-day workshop on 30th April 2015 in Prague with participants from all over the Danube Region. The **RECROS (RESTAR)** project presented at the workshop aims at tackling the absence of a tool for the regional evaluation of the renewable energy sources. The project aims at creating a common methodology, a common tool which will enable Danube Region countries to assess the local sources of renewable energy and also to provide recommendations on their utilization, especially at local/municipal level. Complementary to the common methodology or software tool, pilot projects shall be elaborated by regions. The philosophy of the RECROS (RESTAR) concept comes from the **ReStEP** (Regional Sustainable Energy Policy) project and its Regional Sources Assessment methodology. The main objective of the RECROS (RESTAR) kick-off workshop has been to finalize the project concept, especially to decide upon which areas the project will target and to concretize the working packages as well as the role of the project partners in the future project. Based on the inputs, the concept will be further developed so that it can apply for financing in the autumn of 2015 from the newly established Danube Transnational Programme or other EU funds.

Other initiatives

Conclusions of the Danube Region Smart Grid Concept in 2014 clearly showed that drivers behind the development of smart grids in the Danube Region countries at the moment are mainly the reduction of commercial losses and the improvement of service quality and not the need for integrating renewables to the system. The outcomes of the workshop and assessment report were presented at several events in the course of the current reporting period. The PA2 was invited to present its activities in the *2014 SET Plan Conference (2014 Strategic Energy Technology Plan Conference)* in Rome on 10th December 2014 (*From local to global: Macro-regional approaches*); to Vienna on 12th February 2015 at the *International Workshop Connecting Smart-Cities-Initiative and the European Strategy for the Danube Region* as well as to Brussels on 27-28th May 2015 at the conference on *Technology Challenges and Regional Approaches for Integrating Renewables and Energy Security*.

Throughout the last reporting period, the Steering Group of the PA2 has supported several projects in line with Actions 8-11-16 of the Danube Region Strategy Action Plan. In September 2014, together with the University of Belgrade, the Imperial College of London and the FNR, Central European Initiative (CEI) submitted the project proposal “**Western Balkans Excellence for a Biobased Economy**” into Horizon 2020. The objective of the project proposal was to increase research excellence, industrial utilisation and education in the field of advanced biorefinery technologies and the biobased economy in Western Balkans by establishing a Centre of Excellence within the University of Belgrade (in alliance with the University of Novi Sad and other universities/ institutes from the neighbouring countries). Similarly to this, the latest project of CEI “**Encouraging farmers and foresters in the Danube region to produce non-food bioenergy or bioenergy carriers alongside food, feed and other bio-based products**” was also developed in response to a Horizon 2020 call and submitted in May 2015. The main goal of the proposal facilitate the transfer of well documented, up-to-date land use, environmental and socio-economic model-based knowledge for non-food bioenergy options alongside other food and bio-based products at local level to farmers and foresters in the Danube riparian countries; and to create

impact through structured and consistent communication with actors at the level of project implementation. The Steering Group of the Priority Area highly appreciated the proposals and issued a letter of recommendation in both cases.

5.5. Action 9

Action - “To reinforce the Carpathian Convention to share best practices on using biomass for energy purposes”

The Priority Area and the Carpathian Convention are cooperating in a number of renewable energy projects. The UNEP - Secretariat of the Carpathian Convention is a project partner in the REPLAN project, which was submitted into the Central Europe Programme in April 2015. Moreover, in the biomass workshop for the DANUBIOM project on 13th November 2014 in Budapest the Convention expressed its interest in participating in the initiative. Also, the representatives of the Carpathian Convention participated in the one-day workshop of the RECROS (RESTAR) project on 30th April 2015 in Prague with the aim of taking part in the project. Both Danube Region projects will apply for financing in the autumn of 2015 from the newly established Danube Transnational Programme or other EU funds.

5.6. Action 10

Action - “To implement the National Renewable Energy Action Plans and to prepare a Danube Region Renewable Energy Action Plan”.

The Priority Area significantly contributed to form the joint position of the Danube Region (DR) countries in connection to the fourth dimension of the Energy Union strategy of the European Commission, the decarbonisation of the economy. The Priority Area organised a Stakeholder Seminar “Towards the European Energy Union” with the participation of almost 100 energy experts from the Danube Region and all Europe in Brussels. The event offered an opportunity to present and discuss the analysis prepared by the Priority Area with the title “Decarbonisation in the Danube Region”. The analysis aimed at assessing the performance of the Danube Region countries with regard to 2020 EU carbon policy target implementation, as well as the 2030 EU carbon policy target setting from the point of the DR countries.

The assessment highlighted that DR countries except for Austria and Germany have overperformed the 2020 targets in terms of decarbonisation in the non-ETS sector. In light of the outstanding performance of DR countries to implement 2020 targets, acknowledgement of early action is a key issue for the Danube Region countries when setting 2030 targets for the non-ETS sector. Second, for DR countries the GDP/Capita target setting method is the most advantageous, having the lowest GDP cost of compliance. On the other hand, in case of the cost efficient target setting GDP impacts are the highest this region. The analysis also underlined that single obligatory climate target (CO₂) supports flexibility for the region to meet climate objectives. The paper comes to the conclusion, that general RES target (27%) is feasible from a regional prospective, but maybe it is important to emphasise the political importance of RES-heat versus RES electricity in DR because gas substitution in DR countries is also an objective that can be hardly met by without promoting renewable heat projects.

In view of the above, on 11th June 2015 the Steering Group of PA2 adopted the “*Declaration of the EU Strategy for the Danube Region Priority Area 2 Steering Group on the Energy Union*” stressing the importance of engaging all stakeholders in the implementation of different energy efficiency measures and proposing that banking of unused Annual Emission Allocations (AEAs) in the non-ETS sector to period after 2020 should be further considered under the Effort Sharing Decision

(ESD) revision. Future steps taken by PA2 shall comply with and truly reflect the joint position stipulated in the above Declaration in order to promote the interest of the Danube Region in a comprehensive and timely manner. To make the most of the holistic approach, the extension of the contribution of non-EU Member States of the DR shall be developed in close cooperation with the Energy Community.

5.7. Action 12-13

- *Action - “To develop a comprehensive action plan for the sustainable development of the hydropower generation potential of the Danube River and its tributaries (e.g. Sava, Tisza and Mura Rivers)”.*
- *Action - “To develop and set up pre planning mechanism for the allocation of suitable areas for new hydro power projects”.*

In order to contribute to Action 12-13 closer cooperation with the International Commission for the Protection of the Danube River (ICPDR) was initiated by PA2. Represented by Mr Raimund Mair, the ICPDR introduced the Guiding Principles for Sustainable Hydropower Development in the Danube Basin to the 9th Steering Group Meeting of PA2 in December 2014 in Budapest. The process to develop guiding principles was launched in 2011 by ICPDR and the final document was adopted in June 2013 with the aim of integrating environmental aspects in the use of existing hydropower plants, including a possible increase of their efficiency, as well as in the planning and construction of new hydropower plants. The Czech translation of the Guiding Principles is already available. The planned next steps are to exchange experience and to organize regular follow-up workshops.

5.8. Action 14-17

- Action - “To promote energy efficiency and use of renewable energy in buildings and heating systems including by renovating district heating and combined heat and power facilities as required by Energy Performance of the Buildings Directive and Renewable Energy Directive”*
- Action - “To provide local authorities, businesses and citizens in the Danube Region consultative support with issues relating to mitigation of climate change and energy efficiency”.*

All countries of the EUSDR are confronted with the environmental scenarios related to climate change, therefore mitigating its adverse effects and reducing GHG emissions should be fundamental. The fight for reducing carbon dioxide emissions cannot be fought and won without renewable energy systems.

The ‘**Facilitate Renewable Energy Transition by Advanced Planning**’ (REPLAN) project will start with a thorough analysis of the renewable market and policy in the target regions. Secondly, the environmental sustainability constraints of renewable energy production will be elaborated and operationalised in a sustainability assessment tool. Based on these results the energy planning methodology will be scrutinised and a more appropriate planning tool will be developed facilitating the preparation of appropriate action plans, thus fostering implementation and renewable energy transition. The planning tool will be strengthened by a management tool comprising novel organisational and financial schemes that support renewable energy strategy implementation. Finally, the planning and implementation tools will be tested in the target regions, where existing energy plans will be revised or newly developed through the utilization of the developed management tools.

The **Sustainable Municipal Energy Policy (SMEP)** project, which received funding from the START seed money facility call of the EU Strategy for the Danube Region, aims at supporting a sustainable municipal energy policy and stabilizing municipal energy costs in Eastern Europe with a software application and methodological support. The project will provide municipalities with energy planning & management tools and assistance in development of specifically adjusted energy action plans (long-term concept; strategies). The aim is to improve the level of energy saving and use of RES, as well as tackling the issue of emissions of greenhouse gases (GHG) attributed to energy savings and contributing to EU 20/20/20 goals. The first phase of the project, which started in April 2015, concentrates on identifying the current state of energy planning and use of strategic energy plans in municipalities. The project builds on an idea of bringing together European institutions (mainly from Eastern Europe), stakeholders and cities to address challenges and opportunities for transition to environmentally sustainable, cost-effective and energy efficient management of municipality's property as the current situation is insufficient and leads to energy wastage and high emissions of greenhouse gases (GHG) .

6. ANNEX 2 - PROJECTS APPROVED BY THE STEERING GROUP

BASIC PROJECT DATA	
Full project title	Strengthening capacities in Western Balkan Countries for a Biobased Economy by developing a Transnational Centre of Excellence
Short project title	Western Balkans Excellence for a Biobased Economy (WeBE)
Project website	-
Project description	The aim of the proposed action is to increase research excellence, industrial utilisation and education in the field of advanced biorefinery technologies and the biobased economy in Western Balkans by establishing a Centre of Excellence within the University of Belgrade (in alliance with the University of Novi Sad and other universities/ institutes from the neighbouring countries). The overall objective of the vision (Action Plan) for the new Centre of Excellence will be to focus on advanced process and product development in biorefineries and bio-based products.
Objective(s) of the project	To conduct research in the field of biorefinery and biobased products and inform future developments in practice and theory, e.g. implications for the development of industrial biorefineries in WBC; guide policy and investments, etc. To share the results of research at Universities of Belgrade and Novi Sad and within the Centre with the broader higher education community, to guide the development of future programmes.
Planned project activities including deadlines or duration	The first year phase of the proposed action will be implemented in three phases: <ul style="list-style-type: none"> ▪ Data collection (Start up of the ERC on biorefinery and bioeconomy, Biorefineries and biobased economy) ▪ Analysis & synthesis (Business Plan, Overview and structure of activities) ▪ Project outreach (Dissemination & stakeholder engagement)
Need and added value for Danube Region Strategy	The proposed Centre of Excellence will represent an integrated regional research and innovation platform that will enhance the ability to create, share and exploit knowledge on biomass value chains in countries defined as “modest” or “catching up” innovators, thus contributing to meeting the objectives set in the EUSDR Action Plan for “Sustainable Energy”, particularly Action 8 (To extend the use of biomass) and Action 11 (To explore the possibility to have increased energy production originating from local renewable energy sources to increase the energy autonomy).
Transboundary impact	The proposed Centre of Excellence will have a regional scope and will actively seek collaboration of Universities and Research Institutions from neighboring Countries in order to strengthen and cluster capacities in the field of Bioenergy, Biorefining and Bioeconomy, thus bringing factual contribution to the meeting the needs for strengthened cooperation in research addressed by PA7, and particularly Action 3 (To strengthen the capacities of research infrastructure) and Action 4 (To strengthen cooperation among universities and research facilities and to upgrade research and education outcomes by focusing on unique selling points)
Connection with other	1. FP7 project S2Biom “Delivery of sustainable supply of non-food biomass to support a "resource-efficient" Bioeconomy in Europe”

project(s) ?	<p>(http://www.s2biom.eu/)</p> <p>2. Project 4Biomass (http://www.4biomass.eu/en/project)</p> <p>3. The Biomass Futures Project(http://www.biomassfutures.eu)</p> <p>4. EUREKA E!5851 Project “FeVal - Utilization of waste feather for development of new composite materials and energy raw materials“</p> <p>5. EUREKA E!5851 Project “ BIOPOLY HEAT+COLD - Development and implementation of flue gas emissions standards I n Serbia in combination with development of appropriate appliances for heating and cooling for energy utilization of the agriculture residues“</p> <p>6. Project founded by Ministry of Science of Republic of Serbia “NPEE610-12A - Technologies and equipment for production and utilization of briquets and pellets. Analysis of possibilities for their utilization as a replacement for electric energy for heating“</p>		
<p>Relevant PA2 Action(s) from the Danube Region Strategy’s Action Plan (please click to the link):</p> <p>Action 8 - To extend the use of biomass;</p> <p>Action 11 - To explore the possibility to have increased energy production originating from local renewable energy sources to increase the energy autonomy;</p> <p>Action 16 – To facilitate networking and cooperation between national authorities in order to promote awareness and increase the use of renewable energies.</p>			
STATUS AND TIME FRAME			
Current project phase: (please tick a box)	<p><input type="checkbox"/> Definition (e.g. project idea, abstract)</p> <p><input checked="" type="checkbox"/> Preparation (e.g. project proposal, feasibility study)</p> <p><input type="checkbox"/> Implementation</p> <p><input type="checkbox"/> Completion</p>		
Start date	2015	End date	2016
Notes			
PROJECT MANAGEMENT			
Project leader	Prof. dr Dragoslava Stojiljković		
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FINANCING		
Available: (please tick a box)	<input type="checkbox"/> Yes <input type="checkbox"/> Partly <input checked="" type="checkbox"/> No	
Total budget:	500.000 EUR	
Source(s) and amount (potential sources for project ideas): (please tick a box and provide further info)	<input type="checkbox"/> National/regional funds:	-
	<input checked="" type="checkbox"/> EU funds:	Project proposed under the call: H2020-Widesperad-2014-1 TEAMING
	<input type="checkbox"/> IFI loans:	-
	<input type="checkbox"/> Private funds: equity and	-

	Venture capital	
	<input type="checkbox"/> Other:	-
EUSDR EMBEDDING		
Relation to other Priority Areas of the Danube Region Strategy: (please tick a box)	<input type="checkbox"/> PA1a: To improve mobility and intermodality of inland waterways <input type="checkbox"/> PA1b: To improve mobility and multimodality – Road, rail and air links <input type="checkbox"/> PA03: To promote culture and tourism, people and people contacts <input type="checkbox"/> PA04: To restore and maintain the quality of waters <input type="checkbox"/> PA05: To manage environmental risks <input type="checkbox"/> PA06: To preserve biodiversity, landscapes and the quality of air and soils <input checked="" type="checkbox"/> PA07: To develop the knowledge society through research, education and information technologies <input checked="" type="checkbox"/> PA08: To support the competitiveness of enterprises, including cluster development <input type="checkbox"/> PA09: To invest in people and skills <input type="checkbox"/> PA10: To step up institutional capacity and cooperation <input type="checkbox"/> PA11: To work together to promote security and tackle organised and serious crime	
Do you agree to be considered as a Danube project?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
REMARKS (will be filled by the Priority Area Coordinators)		
Decision of the PA2 Steering Group		DATE:
Date of last update		

BASIC PROJECT DATA	
Full project title	<i>Encouraging farmers and foresters in the Danube region to produce non-food bioenergy or bioenergy carriers alongside food, feed and other biobased products</i>
Short project title	-
Project website	-
Project description	The aim of the proposed action is to foster the development of the bioenergy sector in the Danube Region, and of the Bioeconomy at large, through the strengthening of local supply chains that will be supported through specific

	analytics (economics, sustainability and land use models), and targeted capacity building to foster the generation of innovative solutions in a participatory, cross-sector perspective.
Objective(s) of the project	<p>The main objectives of the proposed project are to:</p> <ul style="list-style-type: none"> ▪ facilitate the transfer of well documented, up-to-date land use, environmental and socio-economic model-based knowledge for non-food bioenergy options to farmers and foresters in Danube riparian countries; and ▪ create impact through structured and consistent communication with actors at the level of project implementation.
Planned project activities including deadlines or duration	<p>The activities will concretize in 2 overarching work packages (management and communication), and 3 technical work packages that will be implemented in parallel throughout the duration of the project (36 months):</p> <ul style="list-style-type: none"> ▪ Bottom-up collection of quantitative data & Modelling ▪ Peer-to-peer (meta) qualitative analysis & Capacity enhancing ▪ Strengthening stakeholders' competence and resilience through local innovation hubs and horizontal networking.
Need and added value for Danube Region Strategy	<p>The proposed action will focus on Danube riparian countries as major European feedstock pivots. Stakeholders along the non-food-biomass-to-energy value chains will benefit from extensive networking and capacity enhancing, but also from specific modelling tools that will streamline business planning. The proposed action will contribute to meeting the objectives of EUSDR Action Plan for "Sustainable Energy", particularly Action 8 and Action 11.</p>
Transboundary impact	<p>The proposed Bioenergy Innovation Hubs will be aggregated according to a typological principle, rather than geographically, thus paving the way for cross-border cooperation. The Bioenergy Innovation Hubs will also actively seek collaboration of Universities and Research Institutions from the region in order to strengthen and cluster capacities in the field of Bioenergy.</p>
Connection with other project(s) ?	<p>The Consortium will closely interact with S2BIOM project, capitalizing on the experience (and data) gathered in the framework of strategic case analyses.</p>
<p>Relevant PA2 Action(s) from the Danube Region Strategy's Action Plan (please click to the link):</p> <p>Action 8 - To extend the use of biomass;</p> <p>Action 11 - To explore the possibility to have increased energy production originating from local renewable energy sources to increase the energy autonomy;</p> <p>Action 16 – To facilitate networking and cooperation between national authorities in order to promote awareness and increase the use of renewable energies.</p>	
<p>STATUS AND TIME FRAME</p>	
<p>Current project phase: (please tick a box)</p>	<p><input type="checkbox"/> Definition (e.g. project idea, abstract)</p> <p><input checked="" type="checkbox"/> Preparation (e.g. project proposal, feasibility study)</p> <p><input type="checkbox"/> Implementation</p> <p><input type="checkbox"/> Completion</p>

Start date	2016	End date	2018
Notes			
PROJECT MANAGEMENT			
Project leader	Central European Initiative – Executive Secretariat		
Contact person	Name	Peter Canciani	
	Organisation	Central European Initiative – Executive Secretariat	
	Address	Via Genova 9 34121 Trieste	
	Phone	+39 040 77 84 749	
	E-mail	canciani@cei.int	
	Website:	www.cei.int	
Project partners (including country code, address, email, phone)	<p>4. Joint Research Centre - Institute for Environmental Sustainability (BE) Dr. Boyan Kavalov Via Enrico Fermi 2749, 21027 Ispra (VA), Italy Tel: +39.033.278.56.79 Email: Boyan.KAVALOV@ec.europa.eu</p> <p>5. Imperial College Centre for Energy Policy & Technology (UK) Dr. Calliope Panoutsou 14 Princes Gardens, South Kensington, London, SW7 1NA Tel: + 44.755.734.18.46 Email: c.panoutsou@imperial.ac.uk</p> <p>6. Pannon Pro Innovations / Climate KIC Central Hungary (HU) Dr. Miklos Gyalai-Korpos 14 Sas street. 1051 Budapest, Hungary Tel: +36 (1) 793-1974 Email: miklos.gyalai@ppis.hu</p> <p>7. University of Novi Sad (RS) Prof. Dr. Milan Martinov Trg Dositeja Obradovica 6, 21000 Novi Sad, Serbia Tel: +381.21.485.23.69 Email: milanmartinov@uns.ac.rs</p> <p>8. Technical University in Zvolen (SK)</p>		

	24 T. G. Masaryk str., SK 960 53 Zvolen, Slovak Republic <i>(specific person still to be defined)</i>	
	Negotiations are currently ongoing with partners from Austria, Germany and Romania. Representatives of other EUSDR Countries will be involved in the projects' Advisory Board	
FINANCING		
Available: (please tick a box)	<input type="checkbox"/> Yes <input type="checkbox"/> Partly <input checked="" type="checkbox"/> No	
Total budget:	1.800.000	
Source(s) and amount (potential sources for project ideas): (please tick a box and provide further info)	<input type="checkbox"/> National/regional funds:	-
	<input checked="" type="checkbox"/> EU funds:	Project proposed under the call: H2020-LCE-14-2015
	<input type="checkbox"/> IFI loans:	-
	<input type="checkbox"/> Private funds: equity and Venture capital	-
	<input type="checkbox"/> Other:	-
EUSDR EMBEDDING		
Relation to other Priority Areas of the Danube Region Strategy: (please tick a box)	<input type="checkbox"/> PA1a: To improve mobility and intermodality of inland waterways <input type="checkbox"/> PA1b: To improve mobility and multimodality – Road, rail and air links <input type="checkbox"/> PA03: To promote culture and tourism, people and people contacts <input type="checkbox"/> PA04: To restore and maintain the quality of waters <input type="checkbox"/> PA05: To manage environmental risks <input type="checkbox"/> PA06: To preserve biodiversity, landscapes and the quality of air and soils <input checked="" type="checkbox"/> PA07: To develop the knowledge society through research, education and information technologies <input checked="" type="checkbox"/> PA08: To support the competitiveness of enterprises, including cluster development <input type="checkbox"/> PA09: To invest in people and skills <input type="checkbox"/> PA10: To step up institutional capacity and cooperation <input type="checkbox"/> PA11: To work together to promote security and tackle organised and	

	serious crime		
Do you agree to be considered as a Danube project?	<input checked="" type="checkbox"/> YES		
	<input type="checkbox"/> NO		
REMARKS (will be filled by the Priority Area Coordinators)			
Decision of the PA2 Steering Group		DATE:	
Date of last update			

BASIC PROJECT DATA	
Full project title	South Hungarian Enhanced Geothermal System Test programme
Short project title	SHEGST
Project website	Not available
Project description	In the SHEGST, partners will engage in collaborative research to increase the performance of near-commercial scale technologies and reduce the cost of power produced from Enhanced Geothermal Systems (EGS). The research proposed within the SHEGST project is aimed at finding innovative solutions within reservoir creation that reduce well field development cost, resulting in increased technology performance and reduced cost of EGS projects. The successful implementation of the project will make the deployment of large scale EGS in Europe feasible and cost effective.
Objective(s) of the project	<p>The objective of the project is to reduce the cost of the production of geothermal energy from EGS technology by developing innovative solutions within reservoir creation that reduce well field development costs, and make the deployment of large scale EGS in Europe feasible and cost effective.</p> <p>The project's objectives relate directly towards achieving EU's energy and climate change targets by delivering a sustainable, competitive and secure renewable domestic energy supply. Moreover, it focuses on increased technology performance whilst decreasing the cost of EGS power production in Europe. Resulting in increased attractiveness for the European market, capturing a sizable part of the final renewable energy production.</p>
Planned project activities including deadlines or duration	The SHEGST project is structured into seven work packages which address the entire EGS reservoir creation process: WP-1 Management, WP-2 Improved stimulation outcomes; WP-3 Stimulation pump system; WP-4 Assessment and monitoring of EGS stimulation; WP-5 Improved drilling cost; WP-6 Business case; WP-7 Dissemination.

	<p>The technical work packages are:</p> <p>WP-2 (Improved stimulation) – Recently improved techniques designed specifically for hydraulically stimulating multiple zones within an EGS reservoir will be tested under field conditions.</p> <p>WP-3 (Stimulation pump system) – An innovative stimulation pump solution will be designed, commissioned and tested in an operational environment by applying the system on the SHEGSDP reservoir.</p> <p>WP-4 (Stimulation monitoring) – Software control algorithms and testing systems have been recently developed specific to EGS stimulation monitoring .</p> <p>WP-5 (Improved drilling cost) – Recently developed new water hammer drilling technologies have been demonstrated to be able to reach 4 km depth at improved rates of penetration and reduced cost (TRL 6). Applying these technologies during SHEGST in an iteratively adaptive manner will improve their use and achieve TRL 7.</p> <p>The non-technical work packages – management (WP-1), business case work (WP-6), and dissemination, publicity and knowledge transfer (WP-7) – complete the project to cover the whole value chain of the EGS reservoir creation process.</p> <p>The overall project duration is 30 months. WP-1, Management will last through the whole 30 months. WP-2, Improved stimulation outcomes will follow the execution of the well stimulation of well 1 in the SHEGSDP and end in early 2017. WP-3 Stimulation pump system will follow WP-2 in duration. WP-4, Stimulation monitoring will finish in the middle of 2017 taking into account results of WP-2 and WP-3. WP-5 Improved drilling cost will coincide with the drilling of the second well of the SHEGSDP. Both WP-6, Business case and WP-7, Dissemination will be active through the whole project duration but with a sporadic activity rather than continuous.</p>
<p>Need and added value for Danube Region Strategy</p>	<p>The projects addresses directly the challenges the EU and the Danube region are facing today. Delivering sustainable, competitive and secure renewable domestic energy supply. Fostering the transition to low-carbon energy and contributing to renewable energy and climate change targets.</p> <p>One of the aims of the SHEGSDP project is to instigate R&D and innovation activities on EGS creation in the Danube region. The project’s consortium is set up with a strong presence of regional entities to anchor the project to the Danube region and putting the Pannonian basin and the Danube Region in the forefront of EGS development in Europe. The strong international character of the consortium provides a unique window of opportunity to connect the region to an international, state of the art research cluster</p> <p>EGS technology is still in the development phase, its biggest hurdle being the high cost of development, and the fact that it has not been demonstrated under many different geological conditions. The objective the project is to</p>

	<p>reduce the cost of the production of geothermal energy from EGS technology by developing innovative solutions within reservoir creation that reduce well field development costs, and make the deployment of large scale EGS in Europe feasible and cost effective. The project focuses on opportunities for repeatability in the whole area marked by the Pannonian basin and facilitates deeper understanding of the bedrock in the Danube Region. If EGS can be developed with these improved technologies, the cost of power generation and heating will become cost competitive with other base load energy technologies such as coal and natural gas, without the Co2 emissions.</p> <p>The supports the Danube region strategy, pillars 1 and 3, by encouraging more sustainable energy and by developing the knowledge society through research, education and information technologies and to invest in peoples and skills. Focusing on cleaner and more secure energy by developing cutting edge green-technology by exploiting the regions renewable energy sources.</p> <p>Finally the projects has an added value for the Danube region geothermal concept by enhancing sustainable utilisation of geothermal energy in the region.</p>
Transboundary impact	<p>The project's transboundary impact can be considerable. The projects finding's applicable in the Pannonian basin as a whole. The project has high replica factor in the whole Pannonian basin in neighboring countries of the Danube region. Potentially bringing the region to the forefront of EGS development and research in Europe..</p>
Connection with other project(s) ?	<p>EU-FIRE EGS Hungary, one of the partners of the project, is developing an EGS project to produce electricity and/or direct use heat in the Battonya region of south-eastern Hungary. The concession contract for the exploration phase has recently been signed and funding through EU's NER300 mechanism is already in place. The project title of this existing EGS project is the South Hungarian EGS Demonstration Project (SHEGSDP). The core group of partners in the SHEGST project are currently engaged in the SHEGSDP project. The cooperation with the SHEGSDP project opens up for an exceptional opportunity for the proposed team to conduct research, develop technology and then test that technology in the field setting of the SHEGSDP.</p>
<p>Relevant PA2 Action(s) from the Danube Region Strategy's Action Plan (please click to the link):</p>	
<p>STATUS AND TIME FRAME</p>	

Current project phase: (please tick a box)	<input type="checkbox"/> Definition (e.g. project idea, abstract)		
	<input checked="" type="checkbox"/> Preparation (e.g. project proposal, feasibility study)		
	<input type="checkbox"/> Implementation		
	<input type="checkbox"/> Completion		
Start date	January 2016	End date	June 2018
Notes			
PROJECT MANAGEMENT			
Project leader	Mannvit kft.		
Contact person	Name	Sigurdur Larus Holm	
	Organisation	Mannvit kft.	
	Address	Budafoki út 56, Budapest, 1117, Hungary	
	Phone	+36203821735	
	E-mail	larush@mannvit.is	
	Website:	www.mannvit.hu	
Project partners (including country code, address, email, phone)	<p>Mannvit Kft (HU) Budapest 1117 Budafoki út 56 Hungary www.mannvit.hu</p> <p>Hot Rock Energy Organization (USA) Seattle 4010 Stone Way N, Suite 400 98103 United States www.altarockenergy.com/</p>		

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Budapest University of Technology and Economics (HU)

BUDAPEST

1111

MUEGYETEM RAKPART 3

Hungary

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paal@hds.bme.hu

	+3614632991		
FINANCING			
Available: (please tick a box)	<input type="checkbox"/> Yes	<input type="checkbox"/> Partly	<input checked="" type="checkbox"/> No
Total budget:	€ 8.879.000		
Source(s) and amount (potential sources for project ideas): (please tick a box and provide further info)	<input type="checkbox"/> National/regional funds:		
	<input checked="" type="checkbox"/> EU funds: € 7.814.448	An application has been submitted to the EU Horizon 2020 framework	
	<input type="checkbox"/> IFI loans:		
	<input type="checkbox"/> Private funds: equity and Venture capital		
	<input type="checkbox"/> Other:		
EUSDR EMBEDDING			
Relation to other Priority Areas of the Danube Region Strategy: (please tick a box)	<input type="checkbox"/> PA1a: To improve mobility and intermodality of inland waterways <input type="checkbox"/> PA1b: To improve mobility and multimodality – Road, rail and air links <input type="checkbox"/> PA03: To promote culture and tourism, people and people contacts <input type="checkbox"/> PA04: To restore and maintain the quality of waters <input type="checkbox"/> PA05: To manage environmental risks <input type="checkbox"/> PA06: To preserve biodiversity, landscapes and the quality of air and soils <input checked="" type="checkbox"/> PA07: To develop the knowledge society through research, education and information technologies <input type="checkbox"/> PA08: To support the competitiveness of enterprises, including cluster development <input checked="" type="checkbox"/> PA09: To invest in people and skills <input type="checkbox"/> PA10: To step up institutional capacity and cooperation <input type="checkbox"/> PA11: To work together to promote security and tackle organised and serious crime		
Do you agree to be considered as a Danube project?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
REMARKS (will be filled by the Priority Area Coordinators)			

Decision of the PA2 Steering Group		DATE:	
Date of last update			

BASIC PROJECT DATA	
Full project title	ReStEP: Regional Sustainable Energy Policy
Short project title	ReStEP
Project website	http://www.restep.cz/cz/home
Project description	<p>The project aims to introduce in practice, test, evaluate and distribute within the framework of the public administration and the business sector a new comprehensive method for urban management and regional planning in the field of proposing and assessing energy projects. The main viewpoint is efficient utilisation of natural resources and the real environmental protection so that the number of wrongly assessed projects of renewable energy sources is reduced by 50%.</p> <p>The new method will use an innovative software tool – an interactive map of conditions for renewable and alternative energy sources including biofuels.</p> <p>The project will create an environment and tools for effective implementation of the EU policy and regulations with emphasis on municipality and natural resources planning in all territories of the Czech Republic. It defines the possibilities and parameters for utilisation of the renewable energy sources and biofuels on the long-term scale with respect to the principles of environmental, economic and social sustainability, as well as preservation of biodiversity, food safety and local energy-supply self-sufficiency in the given locality.</p>
Objective(s) of the project	<p>The goals of the project are:</p> <ul style="list-style-type: none"> • Create and bring to the legislative level a new comprehensive methodology for assessment of building and operating RES and production plants of biofuels, with the aid of an interactive map showing the conditions for renewable and alternative energy sources. • On the basis of existing software and data sources, create an innovative tool for objective decision-making about the utilisation of natural resources and environment for the energy-supply purposes, establishing the conditions for development of sustainable energy while preserving the biodiversity, food and energy safety, and respecting the local conditions and environmental

	<p>impacts. As a basis, the geographical technology and online application will be used – an interactive map, which will gather all available data into one source and tie the data with a cadastral area as a basic unit. This map will include all source information necessary for decision-making by key persons – from an overview of soil types to types of biomass grown to biowaste and other natural resources, to competitive technologies and options for output utilisation, to local specific features or restrictions of the landscape.</p> <ul style="list-style-type: none"> •Implement the new methodology including the interactive map and bring it to the attention at the regional level, including town and municipalities, both in the public administration and among the business and in the general public, including enhancement of relationships with science and research.
<p>Planned project activities including deadlines or duration</p>	<p>The project started in 2011 and was completed at the end of 2014. In 2015 multiplication to macroregional level within the EU Strategy for the Danube Region is planned via submission of application to the DANUBE Transnational Programme.</p>
<p>Need and added value for Danube Region Strategy</p>	<p>Various RES utilization approaches are exercised in different parts of the Danube region mainly with respect to protection of local sources and environment. Through the exchange of good practice and elaboration of a common methodology for the whole Danube region while respecting diversities between urban and rural areas, we will achieve a significant improvement of preconditions for an efficient utilization of RES technologies as a future fundament of European energy policy. Therefore, it is required to ensure their application and utilization with highest possible efficiency while mitigating their impact on environment.</p>
<p>Transboundary impact</p>	<p>The project has been selected to be one of the top ten projects dealing with responsible development and innovation in the Czech Republic. Due to its characteristics the methodology can be used within the whole Danube Region to support good agriculture practice, common approaches for urban/rural areas within the Danube region and common upper-regional methodology.</p>
<p>Connection with other project(s) ?</p>	<p>RESTAR- Renewable Energy SStrategy – Application in Regions</p>
<p>Relevant PA2 Action(s) from the Danube Region Strategy's Action Plan (please click to the link):</p> <p><i>“To extend the use of biomass (e.g. wood, waste), solar energy, geothermal, hydropower and wind power”, especially by research and exchange of experiences / good practices / dissemination of information on related activities undertaken at national level.</i></p> <p><i>“To implement the National Renewable Energy Action Plans and to prepare a</i></p>	

<p><i>Danube Region Renewable Energy Action Plan”.</i></p> <p><i>“To explore the possibility to have an increased energy production originating from local renewable energy sources to increase the energy autonomy”.</i></p> <p><i>“To provide local authorities, businesses and citizens in the Danube Region consultative support with issues relating to mitigation of climate change and energy efficiency”.</i></p>			
STATUS AND TIME FRAME			
<p>Current project phase: (please tick a box)</p>	<p><input type="checkbox"/> Definition (e.g. project idea, abstract)</p> <p><input type="checkbox"/> Preparation (e.g. project proposal, feasibility study)</p> <p><input checked="" type="checkbox"/> Implementation</p> <p><input checked="" type="checkbox"/> Completion</p>		
Start date	11/2011	End date	10/2014
Notes			
PROJECT MANAGEMENT			
Project leader	Czech University of Life Sciences Prague (CULS)		
Contact person	Name: Lukas Pacek		
	Organisation: CULS		
	Address: Kamycka 129, Prague 6 – Suchdol, 165 21		
	Phone: +420 775 142 181		
	E-mail: pacek@af.czu.cz		
	Website:		
Project partners (including country code, address, email, phone)	<p>CZ Biom – Czech Biomass Association</p> <p>U Čtyř domů 1201/3</p> <p>140 00 Praha 4</p> <p>www.biom.cz</p> <p>www.czbiom.cz</p>		

	<p>ECO trend Research center, s.r.o.</p> <p>Na dolinách 128/36</p> <p>147 00 Praha 4</p> <p>www.ecotrend.cz</p> <p>Research Institute for Soil and Water Conservation</p> <p>Žabovřeská 250</p> <p>156 27 Praha 5 - Zbraslav</p> <p>www.vumop.cz</p> <p>Ministry of the Environment of the Czech Republic</p> <p>Vršovická 65</p> <p>100 10 Praha 10</p> <p>www.mzp.cz</p>	
FINANCING		
Available: (please tick a box)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Partly <input type="checkbox"/> No	
Total budget:	1 538 534 €	
Source(s) and amount (potential sources for project ideas): (please tick a box and provide further info)	<input type="checkbox"/> National/regional funds:	
	<input checked="" type="checkbox"/> EU funds:	€ 769 134
	<input type="checkbox"/> IFI loans:	
	<input type="checkbox"/> Private funds: equity and Venture capital	
	<input checked="" type="checkbox"/> Other:	Ministry of the Environment of the Czech Republic contribution € 200 000
EUSDR EMBEDDING		
Relation to other Priority Areas of the Danube Region	<input type="checkbox"/> PA1a: To improve mobility and intermodality of inland waterways <input type="checkbox"/> PA1b: To improve mobility and multimodality – Road, rail and air links	

Strategy: (please tick a box)	<input type="checkbox"/> PA03: To promote culture and tourism, people and people contacts <input type="checkbox"/> PA04: To restore and maintain the quality of waters <input type="checkbox"/> PA05: To manage environmental risks <input checked="" type="checkbox"/> PA06: To preserve biodiversity, landscapes and the quality of air and soils <input type="checkbox"/> PA07: To develop the knowledge society through research, education and information technologies <input type="checkbox"/> PA08: To support the competitiveness of enterprises, including cluster development <input type="checkbox"/> PA09: To invest in people and skills <input type="checkbox"/> PA10: To step up institutional capacity and cooperation <input type="checkbox"/> PA11: To work together to promote security and tackle organised and serious crime		
Do you agree to be considered as a Danube project?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
REMARKS (will be filled by the Priority Area Coordinators)			
Decision of the PA2 Steering Group	The Danube region countries endorsed the project for evaluation.	DATE:	30 th July 2014
Date of last update			

Use specific PA project templates if existing or the table above.

7. ANNEX 3 – TA PROGRESS REPORT

The Technical Assistance is an important contribution to the successful coordination of the Priority Area. The recipient of the TA source in the Priority Area 2 case is the Office of the Government of the Czech Republic and the Ministry of Foreign Affairs and Trade of Hungary. The Technical Assistance is split evenly between the coordinating countries. The use of public funding is guaranteed by strict internal rules of both beneficiary institutions. Both coordinating countries have used the Technical Assistance grant for covering the cost of personnel and implementation of the coordination role.

The TA has been used in relation to:

- cost of participation at the general EUSDR meetings (Annual Forum, National Coordinators/Priority Area Coordinators joint meetings, Priority Area Coordinators meetings, programming meetings);
- meetings concerning the governance of the PA2 (Steering Group meetings, strategic meetings of the Priority Area 2 Coordinators, consultations with the European Commission);
- implementation of concepts and initiatives of the PA2 (project consortia, analyses and analysis, etc.);
- cost related to strengthening visibility of the PA2 (e.g. publications, promo materials, Stakeholder's Seminar, webpage, etc.);
- cost related to participation on conferences and workshops.

8. LIST OF ABBREVIATIONS

DanReGeotherm	Project aiming at data support for the enhanced use of deep geothermal energy in the Danube Region
DANUBIOM	Project aiming at improving sustainable bioenergy use with multinational co-operation in the Danube region
DG ENER	Directorate-General for Energy, European Commission
DG ENV	Directorate-General for the Environment, European Commission
DG REGIO	Directorate-General for Regional and Urban Policy, European Commission
EUSDR	EU Strategy for the Danube Region
PA2	Priority Area 2 “To Encourage More Sustainable Energy“
PAC	Priority Area Coordinator
SMEP	Project aiming at sustainable municipal energy policy (RES & EE)
START	Danube Region Project Fund – seed money programme
RECROS	Project aiming at developing renewable energy cross- border strategy
REPLAN	Project to facilitate renewable energy transition by advanced planning
REMIT	Project aiming to analyse the effects and implementation of the Regulation on the Energy Market Integrity and Transparency in the Danube Region
TA	Technical Assistance
TAF-DRP	Technical Assistance Facility for Danube Region Projects, seed money programme