

**DOCUMENTATION OF THE
INTERNATIONAL FINAL CONFERENCE
OF THE BIOVILL AND COOLHEATING PROJECTS
28TH NOVEMBER 2018, BRUSSELS**



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Further information about the BioVill project on: www.biovill.eu



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1. Introduction

1.1 The BioVill project

BioVill is a three years project supported by the European Union's Horizon 2020 research and innovation programme with a budget of around 1.99 Mio EUR. The project started in March 2016 and is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in collaboration with 8 partners from the BioVill target partner countries Croatia, Macedonia, Romania, Serbia and Slovenia, as well as from Germany and Austria.

Many South East European countries have high biomass potentials, but they are often not or only inefficiently used for local energy supply and regional economic development. Thus, the overall objective of the BioVill project is to support the development of regional bioenergy concepts and the establishment of bioenergy villages in Croatia, Macedonia, Romania, Serbia and Slovenia. This will be achieved by identifying suitable biomass value chains according to local and regional needs and transferring existing experiences in Austria, Germany and other European countries to the South-Eastern European partners. Thereby the market uptake of domestic bioenergy supply chains will be increased and the role of locally produced biomass as a main source of energy supply and added value for the local and regional economy will be strengthened.

Core activities of the BioVill project include national and local framework analyses, technological and economic assessments of local bioenergy value chains, development of the institutional set-up and energy management concepts for the potential Bioenergy villages as well as capacity building on financing schemes and business models. As a key factor of success, the BioVill project uses a multi stakeholder approach fostering the involvement and active participation of the citizens and all relevant stakeholders in the planning and implementation process.

Major results of the BioVill project will be the initiation of at least five bioenergy villages in the target partner countries up to the investment stage for physical infrastructure, the raise of public acceptance and awareness of a sustainable bioenergy production and its commercial opportunities as well as increased capacities of users and key actors in business and legislation to sustainably manage bioenergy villages and to enact national and EU legislation. Altogether the BioVill project will contribute to the expansion and sustainability of the bioenergy markets in Europe and the European Union.

1.2 Scope of the task/deliverable

At the end of the project, the BioVill consortium has organized a one-day International Conference in Brussels, serving as the major platform for the presentation and discussion of the BioVill results to the political, economic and scientific communities in Europe, fostering alliances between public and private sector and aiming to the further roll out of the bioenergy villages approach. In order to enable exchange of knowledge and experiences and to identify regional and professional synergies among the projects and partners the conference was jointly organized and facilitated with the H2020 CoolHeating project focusing on small modular renewable heating and cooling grids for communities in South-Eastern Europe. Thus, the costs of the event were split between the BioVill and CoolHeating projects.

This report presents the documentation of the performed final international conference, including information about the venue and date, the conference programme, list of speakers and participants, the major results and lessons learnt from presentations and discussions as well as the participants' evaluation. A summary of this documentation published in the form of the press release and the presentations held at the conference are presented on the websites of the BioVill and Coolheating projects.

2. Documentation of the Final International Conference

2.1 Venue and Date

The Final International Conference of the BioVill project was jointly organized with the Horizon2020 project CoolHeating on 28th November 2018 at the Manos Conference Center in Brussels, Belgium.

2.2 Target Group and Participation

More than 80 representatives of the EU commission, national and international partner organisations, companies involved in renewable energy as well as district heating and cooling investments and both project consortia took part in the event. Over 100 invited network partners had registered for the conference. The participants had been invited by the BioVill and CoolHeating consortia via several invitation emails to the partners' networks. The target group of participants was selected as such that the conference offered the opportunity to meet renewable energy experts, to talk to possible investors, and to discuss the project results and the implementation progress of renewable bioenergy villages and sustainable district heating and cooling systems in Europe. A large share of the attendees came from the project target countries in South-Eastern Europe as well as from Austria, Denmark and Germany. Further, there were participants from non-project countries, such as Belgium, France, the Netherlands, Spain and Ukraine.

The participants including the speakers were informed about the new EU data protection procedures, both along with the invitation and registration process as well as at the opening of the event.

2.3 Speakers

The following speakers and session moderators were involved in the conference sessions and panel discussion (in chronological order of the agenda, see Annex 1):

- JENS ADLER, Project Coordinator BioVill, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Germany
- DOMINIK RUTZ, Project Coordinator CoolHeating, WIP Renewable Energies, Germany
- THOMAS SCHLEKER, DG RTD, European Commission
- KARLIS GOLDSTEIN, DG ENER, European Commission
- TOSHIMASA MASUYAMA, International Renewable Energy Agency (IRENA)
- HERMANN HANSEN, Fachagentur Nachwachsende Rohstoffe e.V., Germany
- MARTIN HÖHER, Austrian Energy Agency, Austria
- KONSTANZE STEIN, Klimaschutz und Energieagentur Baden-Württemberg GmbH, Germany
- JOŽE PRAH, Slovenian Forest Service, Slovenia
- DARJA KOCJAN, Slovenian Forestry Institute, Slovenia
- LJUPCHO DIMOV, Municipality of Karposh, Macedonia
- VASIL BOZHICALIEV, SDEWES-Skopje, Macedonia
- CHRISTIAN DOCZEKAL, Güssing Energy Technologies, Austria
- SLOBODAN JEROTIC, President of Toplana Šabac, Serbia
- MARIN PETROVIC, Municipality of Visoko, Bosnia and Herzegovina
- PROF. NEVEN DUIC, University of Zagreb, Croatia
- PROF. ION VISA, Transylvania University of Brasov, Romania
- JAKOB WORM, PlanEnergi, Denmark
- NADA MARIJANOVIĆ, Municipality of Perušić, Croatia
- Moderation Session 1: NATAŠA MARKOVSKA, SDEWES-Skopje
- Moderation Session 2: MIODRAG GLUŠČEVIĆ, Standing Conference of Towns and Municipalities, Serbia
- Moderation Session 3: Dr. ANES KAZAGIĆ, JP Elektroprivreda BiH d.d. Sarajevo (EPBiH), Bosnia and Herzegovina
- Moderation Session 4: NIKE KRAJNC, Slovenian Forestry Institute, Slovenia

The speakers were selected by the project consortia with the objective to give an insight in the bioenergy market uptake and approaches on an EU policy level as well as input on the international implementation sight on renewable energy policies with focus of South-East Europe. Furthermore, project partners of selected BioVill and CoolHeating target villages presented the current state on the implementation of the bioenergy and district heating and cooling concepts in their communities. Additionally, the perspective of implementation energy agencies on a European level (INEA) and on a national level was outlined.

2.4 Conference Objectives and Programme

The major objective of the final international conference was to provide a platform for the presentation and discussion of the projects results to the political, economic and scientific communities in Europe. Moreover, it fostered alliances between the public and the private sector to promote the further roll out of bioenergy villages and renewable energies based local district networks for heating and cooling.

The event was structured in four sessions including two key note speeches and a panel discussion, which are outlined in detail in the following. The conference agenda can be found in the Annex 1. The presentations by all speakers are available on the BioVill website for download (<http://biovill.eu/final-conference/>).

Session 1 – Overview on Renewable Heating Developments

The one-day conference was opened by the joint welcome address of Mr. Dominik Rutz (WIP), project coordinator of CoolHeating, and Mr. Jens Adler (GIZ), project coordinator of BioVill. They also welcomed the participants on behalf of INEA, since the respective project officers could not attend the conference due to other urgent obligations. Mrs. Natasa Markovska of the Macedonian BioVill and CoolHeating partner SDEWES-Skopje was the moderator of the first session, which included the following keynote speeches.

Mr. Thomas Schleker, representative of the Directorate-General for Research and Innovation of the European Commission (DG RTD) outlined in his presentation the current trends on renewable heating and cooling in research and development. He pointed out that research and innovation are essential to accomplish the Paris Agreement and to accelerate the energy transition. Furthermore, the right policy signals as well as the accessibility to financial instruments and funding programmes play a vital role in the transition. Thus, the EU has made a substantial budget available for the renewable energy research and innovation sector over the last few years. The DG RTD is responsible for the collaborative projects in the market update of renewables and accompanying the new current trends in this area. Main challenges faced in the energy transition are to increase technology performances, to reduce costs – not only running costs, but also installation costs -, and to integrate the new technology in the existing energy systems. He also outlined, that the new EU Horizon Europe strategy is developed for the period 2021 – 2027 and titled it an “evolution, not revolution”.

Mr. Karlis Goldstein as the representative of the Directorate-General for Energy of the European Commission (DG ENER) focused his keynote speech on policies, trends and opportunities of renewable heating and cooling in Europe. At the beginning, he highlighted the new EU Commission’s strategic long-term vision for a prosperous, modern, competitive and climate-neutral economy by 2050, which was officially published at the day of the BioVill and CoolHeating final international conference. The draft will be open for EU-citizens to assess the energy and heating potential in their communities and to give feedback on the new decarbonisation goals until 2030. It will be finalized at the end of 2018. Mr. Goldstein emphasized that the heating and cooling sector as one of the main drivers in the energy share is essential for reducing GHG emissions. The energy demand level in the EU have been continuously decreased until 2014, when it suddenly started to increase. This rise mainly results from a higher energy demand in the transport and service sector, as well as from a higher domestic use of more electronic devices because of an overall increase of wealth. This arouses the need for both, additional assessments and data collection, and the increased use of renewable energy resources in different steps of the energy value chain, such as using residuals from biomass for heating and cooling systems. Mr. Goldstein pointed out that the new trend of the internet of things (IoT), will further increase energy demands because of more appliances in full-time-use-mode. But with the introduction of smart grids the energy demands can be spread to avoid peaks in the energy consumption.

The implementation component was represented in the keynote speech of Mr. Toshimasa Masuyama of the International Renewable Energy Agency (IRENA) on renewable energy potentials and policies in South-East Europe. He accentuated, that according to analyses of IRENA, renewable energies are already competitive and cost effective

in comparison with fossil fuels. Further, he pointed out, that the South-East European countries provide large biomass resources for energy use. But more efforts have to be made in the SEE countries to fully use their potentials for sustainable energy production, economic development, emission reduction and climate protection.

Session 2 – Bioenergy Villages (BioVill) – Increasing the Market Uptake of Sustainable Bioenergy

Session 2 was dedicated to the presentation of the BioVill project, its objectives and achieved results. It was moderated by Mr. Miodrag Gluscevic of the Standing Conference of Towns and Municipalities (SKGO) in Serbia, a project partner of BioVill. The session included presentations on the overall project approach, objectives and results, on examples of a successful national support programme for bioenergy villages and regions in Germany, on the specifics of different bioenergy village business models and on two projects developed within the BioVill project.

Mr. Jens Adler from GIZ, the project coordinator of the BioVill project, opened the second session with an introduction to the BioVill project and its results and achievements. He briefly presented the bioenergy village approach, which was implemented in the BioVill target villages and emphasized local leadership and local stakeholder and citizen involvement as crucial aspects for a successful bioenergy project implementation. As main achievements of the BioVill project, he mentioned the signing of Letters of Commitment by the major stakeholders from the target villages and the high number and motivation of the involved citizens and stakeholders in various information events, European-wide study tours and bioenergy working groups. The planned bioenergy projects in the target villages will create about 100 new jobs and save several thousand tons of emissions. In all target villages, viable business models have been developed with the support and expertise of the project consortium. He concluded that the BioVill project can be assessed as very successful and the BioVill target villages have the potential to become new best practice examples for bioenergy villages in South-Eastern Europe.

The national bioenergy village support programme in Germany was presented by Mr. Hermann Hansen, representative of the FNR (Fachagentur Nachwachsende Rohstoffe e.V.), the central coordinating institution for research, development and demonstration projects in the field of renewable resources in Germany. He pointed out that the entire value chain of renewable energy production can be covered with support programmes. In Germany, the current political and public discussion on sustainable energy focuses mainly on wind and solar energy, although, two third of the turnover from renewable energy comes from biomass. Wind and solar energy is provided by nature for free, in comparison to biomass, which involves additional costs for the inputs. However, energy production from biomass provides more jobs and the turnover is higher. The FNR database counts 9.000 biogas plants and 147 bioenergy villages in Germany, while additional 44 bioenergy villages are currently in the development stage. German bioenergy villages provide a broad variety of approaches depending on the setting of the villages. The FNR aims at the establishment of more bioenergy villages in Germany, yet the policy support “could be much better” according to Mr. Hansen. Thus, the image of bioenergy villages should be improved and promoted. One measure in this direction by FNR is the “Bioenergy village challenge”. The competition started in 2010 and awards innovative and successful bioenergy villages. Finally, he also mentioned that in future, FNR will also support the integration of other renewable energy sources in the bioenergy village concept.

Mr. Martin Höher of AEA and Mrs. Konstanze Stein of KEA, both project consortium partner of BioVill, gave an insight in the process from the idea to the business model of a bioenergy village. Mr. Höher presented the steps regarding the techno-economic feasibility assessment, while Mrs. Stein talked about the business model development for bioenergy villages. Mr. Höher outlined the bottom-up approach of BioVill as a relatively new concept in South-East Europe. Once more, the involvement of citizens and stakeholders and the joint development of bioenergy strategies and objectives were emphasized. The framework conditions for the implementations have to be assessed thoroughly in long-term assessments and calculations of the techno-economic feasibility, and further, should be commonly comprehensive by including citizen surveys. Mrs. Stein also highlighted the importance of energy efficiency and conservation measures, which should be considered when setting up a business model for a bioenergy village. It is further essential to build up an entire value chain of the bioenergy production process. This involves the biomass production and gathering as well as the heat production and distribution. The basis for a viable business model are lifecycle and full cash-flow calculations that consider the full-cost heat price including the operation and capital costs.

Mr. Joze Prah of the Slovenian Forest Service and Mrs. Darja Stare of the Slovenian Forestry Institute as a project partner of BioVill, presented the current developments in the Slovenian BioVill target village Dole pri Litiji, which has named itself the first energy self-sufficient village in the charcoal land of Slovenia. The community is currently in the planning and application phase and plans to start the implementation during the next year. The installation of a new

heating central and the small district heating system will be connected with other infrastructure investments, e.g. the construction of a new firefighter house and water supply, sewer, fibre internet, electricity and road renovation. Besides the use of biomass, the village also plans to integrate other renewable energy resources in the energy production of the region. As an additional value in Dole, the bioenergy village approach is also used to promote sustainable energy production as a touristic highlight in this region characterized by the traditional production and use of charcoal.

Another insight to the implementation of the BioVill approach and the bioenergy concept for a larger settlement, the town of Kicevo in Macedonia, was given by Mr. Ljupcho Dimov, representative of the Municipality of Karposh, and Mr. Vasil Bozhikaliev of SDEWES-Skopje. The BioVill approach in Kichevo foresees the intensive use of forest residuals for district heating, to supply several public buildings in the first phase and also private households in a later stage. The concept was very well communicated within the community among the relevant stakeholders and decision makers and is thus well accepted by the citizens. The municipality is currently in communication with the World Bank to receive a grant for the planned investments. SDEWES-Skopje will further continue the intensive cooperation with the municipalities of Kichevo and Karposh for the further implementation of the bioenergy village approach.

Session 3 – CoolHeating – Market Uptake of Small Modular Renewable District Heating and Cooling Grids for Communities

The third session was moderated by Dr. Anes Kazagic of JP Elektroprivreda BiH d.d. Sarajevo (EPBiH), Bosnia and Herzegovina. The sequence highlighted the main planning steps of the implementation of small modular renewable heating and cooling grids in communities including an outline on technical concepts and seasonal storage issues – not only with focus on biomass, but also solar thermal energy supply. The speakers Mr. Dominik Rutz as project coordinator of CoolHeating, Mr. Slobodan Jerotic, President of Toplana Sabac (Serbia), and Mr. Marin Petrovic of the Municipality of Visoko (Bosnia and Herzegovina) presented a deeper insight in the major achievements of the CoolHeating project to be reached within the next three to five years. Highlight in Mr. Petrovic's speech was the presentation of their developed 3D-Modell and the respective database for the analysis of consumption patterns in the Municipality of Visoko. The CoolHeating project's success was underlined by the signing of the Letter of Commitment for the Municipality of Visoko during the conference itself.

Furthermore, Mr. Christian Doczekal of Güssing Energy Technologies (Austria) spoke about the challenges in the planning process of small district heating grids, more explicitly, the technical concepts for heating with biomass, solar thermal and heat pumps. These challenges include the awareness raising process of the citizens and stakeholders, the techno-economical assessments in regards to the individual local conditions and legal frameworks and well as the connection of the small district heating grids themselves with consideration of a constantly high temperature flow and daily peaks in heat and cooling patterns. Mr. Doczekal's experience shows that the proposed heat price by renewable energy is very low, but still too high for some citizens in the partner countries to compete with the fossil fuel prices. Nevertheless, in Croatia, for example, the oil price is higher compared to the renewables, if all costs are taken into account. The Güssing Energy Technologies Company showed many best-practice-examples of bioenergy use for small district heating and cooling concepts in the CoolHeating study tours. They further produced a handbook with important facts and figures on the implementation of small modular renewable district heating and cooling grids for communities.

Session 4 – Market uptake of renewable energies for heating and cooling in Europe – The impact of the projects BioVill and CoolHeating

In the last session, a very vivid panel discussion including various comments and questions of the conference participants took place and was moderated by Mrs. Nike Krajnc, BioVill partner and representative of the Slovenian Forestry Institute. The experienced panelists were selected in order to provide broad opinions to the debate on bioenergy use from a European political and academic level as well as from the perspective of municipalities and energy agencies, currently implementing bioenergy projects in the target countries of the projects. Due to other obligations, the panelists from the European Bank of Reconstruction and Development, Mr. Greg Gabriel, could not attend the conference. The panelists discussed the following guiding question and the auditorium was invited to provide comments to their statements and ask further questions.

Which are major impacts of the two projects BioVill and CoolHeating?

Mrs. Nada Marijanovic, representative of the BioVill partner municipality Perusic, highlighted as a major impact of the BioVill project, that the planning process for the bioenergy project in Perusic has reached a mature stage, so that already by the end of 2018 the permission for constructing the necessary infrastructure for the implementation of the new district heating systems is expected. Nevertheless, according to her, Perusic and all villages in Croatia still face major challenges, especially the lack of support programmes and too small budgets for investments in such bioenergy initiatives. If better funding opportunities would be provided, definitely more communities in the country would switch to renewable energy concepts.

Professor Ion Visa from the Romanian Transilvania University of Brasov argued for BioVill that the project has a high relevance for the public media promotion of the bioenergy village idea and concept. The two Romanian partner villages work towards the establishment of an entire value chain, either with biomass from forest residues or with biomass cultivation (e.g. short rotation coppice). Further, the infrastructure for the use of the biomass has been developed and implemented. The actual use and further development of new bioenergy systems should be improved also by the support of the universities in the respective countries. This refers mainly to the task of data collection and analyses as well as model calculations.

The impacts of CoolHeating were highlighted by Professor Neven Duic of the University of Zagreb and Mr. Jakob Worm of the consulting company PlanEnergi, Denmark. Prof. Neven stated that biomass heating currently is not really trendy in the Balkan region. Thus, the promotion of this idea by the CoolHeating and BioVill projects has to be highlighted and very much appreciated. The University of Zagreb developed a heating map tool for Croatia and is currently working on another map for Bosnia-Herzegovina. He recommended the further development of such open database tools. According to Prof. Neven, the role of gas as competitor for the bioenergy production from biomass (residuals) is significant. Therefore, it is very difficult to increase public awareness and acceptance for the benefits of biomass-based district heating and cooling systems. He also pointed out that these measures are only possible with appropriate and sufficient funding.

Mr. Jakob Worm completed the question round with his statement, that the Balkan region has plenty of renewable resources. It is therefore very important to elaborate detailed feasibility studies and develop appropriate software tools for the implementation of concepts like the ones developed and promoted by the CoolHeating and BioVill projects. He stated that the capacity building measures provided by the project proved to be very good in regards to the knowledge transfer to the South-East European partner countries and to raise the awareness for the potential, which is available in the region. It is essential to find the right resources for such implementations and CoolHeating has shown the right approach, e.g. for feasibility studies in order to convince the local politicians and citizens that the new strategies will bring higher benefits on many levels.

The audience provided several comments and remarks to the panelists' statements. It was pointed out, that the two projects have already made a big impact especially on the local and regional but also on the national and political legislative level and thus, have supported an environmental change. The collaboration with the academia was further emphasized as a vital role for continuing implementation and dissemination of the bioenergy village concept. It was highlighted, that in the two BioVill target villages in Romania Ghelinta and Estelnic, already several bioenergy heating systems have been newly installed and the local private sector has stated a great interest in further investments in the bioenergy value chain. It was concluded, that the implemented approach of installing new biomass boilers first in public buildings to raise public awareness on the bioenergy concept has also turned out to be the right way.

What are next steps regarding financing, support instruments, awareness creation and stakeholder involvement?

Mrs. Nada Marijanovic stated that a next step for the Municipality of Perusic is to wait for the results of the EU tenders for funding the planned bioenergy project, since the current budget of the municipality is too small, to cover the entire implementation and investment steps. But also more national funds and support programmes have to be provided and developed. And another issue to be worked on is policy harmonization. For instance, in Croatia exist a support programme for the exchange of old boilers which counteracts with the objective of the municipality to establish a district heating system.

Prof. Visa claimed, on a more general level, the major steps are to convince more local councils and mayors to accept such new approaches. The second step would be to identify the energy needs in the target regions and to determine which areas are feasible to install the bioenergy village concept. Thirdly, a mixed energy system should be designed individually per target community. All these steps have to include the constant and transparent communication with experts and the involvement of all relevant stakeholders, decision makers and citizens. The barriers regarding financing are found not only on a national level in terms of lacking support, but also on the level of local councils. The role of the local authorities must not be underestimated when introducing these new concepts. Prof. Visa emphasized again the role of human resources in these approaches, meaning cooperation with developers and engineers, and the academia. When speaking of private investors, it is vital that the regular management of companies has to stay within the company's hands to have an own economic life. Unfortunately, too often, the national and local politicians interfere too much in these business developments and alliances instead of providing adequate support, hence, no long-term development of companies can prosper.

Prof. Neven agreed with this interference-issue mentioned by Prof. Visa and added the example of Romanian development projects in the 90'ies where local politicians used the bottom-up approaches for their own purposes. The separation between local companies and the local communities is crucial for a successful implementation of projects like BioVill and CoolHeating, and more intense focus should be placed on the stakeholder and citizen involvement based on agreed rules. Sometimes, the intention of local politicians is good, but results in non-feasible projects. He stated that in terms of reaching the EU climate targets for 2050, the idea of local district heating and cooling needs to be pushed in the urban areas. It is much easier to distribute renewable energies to (newer) urban areas than to refurbish old buildings. Slowly, the national governments will have to react accordingly and implement the right strategies, since it is much cheaper to start the distribution of renewable energy systems now than later, when the energy demand has been increasing continuously. This is, for example, for Croatia very significant, since 50% of the population lives in rural areas. He mentioned further that the Danish approach of sustainable energy supply and bioenergy villages is not equally adaptable to the South-Eastern European region. The aim should be to develop suitable local solutions, which provide jobs and maintain the knowledge on these concepts within the countries.

Which are your policy advices to the national and EU level?

The panellists agreed to advice national and EU level policy and decision makers to develop more support programmes, credit lines and funding opportunities. This shall foster the implementation of private investments (even on household level) and of further projects which will result in more case studies and best practice examples for renewable energy solutions based on the resources available in the Balkan countries. The overall objective should be to decarbonize the heating and cooling sector. This has to be included in national development strategies. It was also agreed, that existing solutions in northern European countries cannot be simply transferred to South-East Europe, but they have to be adapted to local conditions and legal frameworks. For instance, in South-East Europe mayors and local politicians play a more important role in the project implementation and awareness raising process. Thus, a high priority for further projects should be to involve them from the very beginning along with the other relevant stakeholders. On the other hand, local politicians in the partner countries like to interfere in business decisions, e.g. of public companies like district heating operators. This has to be avoided in future, to ensure viable economic solutions. Finally, a high need for further research on such renewable energy concepts was highlighted, especially in regards to the implementation of smart grids.

During the discussion, a participating representative of a private company and potential investor expressed his interest in the presented approaches and his openness for further discussions about investments with the present project partners.

Closing

At the end of the day, Mr. Jens Adler and Mr. Dominik Rutz closed the conference with special thanks to the EU for funding the two Horizon2020 projects BioVill and Coolheating and making this event possible, to the speakers, panelists and the session moderators for their contributions to the success of the conference and to the audience for their active participation.

3. Major Results and Lessons Learnt from Presentations and Discussions

Major results and lessons learnt gained from the presentations and panel discussion during the conference are:

- In the partner countries of the BioVill and Coolheating projects great opportunities exist for the use of bioenergy and other renewable energy resources for the establishment of local heating and cooling networks
- To foster the market uptake of renewables and bioenergy, more best practice examples in the partner countries are needed to gain the interest of citizens, stakeholders and politicians in renewable energy solutions
- An early involvement of stakeholders, citizens and local authorities and a continuous networking with representatives of European expert networks and best-practice-examples is crucial for a successful project implementation. Study tours to best practice examples should be organized at a time when partners are already involved in planning processes, because then they possess the relevant knowledge and can ask the right questions.
- More financial but also technical and scientific support programs should be made available by national governments but also by EU programmes.
- The early collection of as much relevant data as possible is very important, to overcome the still existing lack of information and adequate feasibility studies for the planning process in the target municipalities.
- The combination of bioenergy with other renewable energy resources in the local energy systems is recommended to ensure a sustainable energy supply.
- A greater involvement of the academic research should be encouraged to receive more and better analyses and scientific information and thus, to have better arguments for the discussion with politicians and decision makers of regional and national governments in the partner countries on the potentials of bioenergy.

4. Dissemination of the Final International Conference

The conference was strongly promoted beforehand by various means, e.g. on both project websites, via partners' social media channels, in several newsletters including the BioVill project newsletter, at the national conferences organised by the partners in the BioVill target countries and at other bioenergy related network events. After the conference, the project coordinators GIZ and WIP together with the organizer SDEWES published a press release on the project websites, in German technical journals, in the GIZ newsletter as well as in the BioVill project newsletter (Annex 3). The press release was also translated into national languages and further disseminated by the project partners in national social media and press. Lastly, it was also sent to all invited participants. A professional photographer visually documented the event. A photo gallery of selected pictures was compiled which can be accessed on the BioVill website. All presentations of the speakers are available on the BioVill website for download.

Both projects distributed various information materials at the conference. For BioVill this included the BioVill flyer and fact sheet in several languages; the catalogue of best practice examples of bioenergy villages in Austria, Germany and Croatia; the logwood, woodchip and pellet info sheets; the presentation of individual BioVill concepts of the target villages; the handbook on business models as well as the national versions of the individual project concepts for the BioVill villages. During the coffee break, also animation video about the bioenergy approach produced by the BioVill project was presented.

In addition, another Horizon2020 project KeepWarm (also coordinated by GIZ) used the opportunity to provide project information during the conference at a separate information table, in order to share experiences and to identify and valorise synergies on the topic of district heating. Thus, during the coffee breaks the participants had also the chance to learn more about the KeepWarm project approach and to network with the project coordinator of GIZ.

5. Participants' Feedback and Evaluation

The organisers collected the feedback of the conference participants with a feedback form which was handed out at the registration (see Annex 2). 35 out of 84 participants replied the filled-out form, which represents a normal return rate for such an event. The results are listed below.

Regarding the first question 66% of the participants totally agreed and 34% agreed that objectives of the event were fully achieved. No participant stated that the objectives were not reached.

On the second question, in how far the conference sessions contributed to the achievement of the conference objectives, the respondents replied as follows:

- for Session 1: 60% of the participants totally agreed, 40% agreed.
- for Session 2: 57% of the participants totally agreed, 40% agreed, while 3% disagreed.
- for Session 3: 69% of the participants totally agreed, 31% agreed.
- for Session 4: 69% of the participants totally agreed, 31% agreed.

The third question asked for the participants' assessment whether they feel enabled to embody concrete ideas in their work and to apply methods and instruments presented in the conference sessions in their projects. 53% of the participants totally agreed, 43% agreed, while 2 respondents disagreed.

Lastly, the participants were asked to assess the statement: "I am satisfied with the logistical organization of the conference." The results were: 66% of the participants totally agreed, 29% agreed, while 2 respondents disagreed.

In the "further comments" section, the opportunity was given to add additional comments. Summarized, the given comments thanked the organizers and coordinators for the excellent organization of the conference. Only one pointed out that the quality of some of the speeches could be improved, e.g. in terms of speaking freely.

6. Conclusions

According to the opinion of the organisers and the participants' feedback it can be concluded that the conference objective - providing a platform for the presentation and discussion of the projects results to the political, economic and scientific communities in Europe - was successfully achieved. Alliances between the public and the private sector were endorsed, the main project outcomes were assessed and best practice examples as well as innovative value chains for the sustainable use of renewable energies in local district heating and cooling grids were presented. Furthermore, the idea of jointly organising the final conference for both projects was very much welcomed. The hereby enabled exchange amongst the representatives of public authorities and utility companies, national and regional decision makers and the research community contributed to expand the network within the renewable energy community for district heating and cooling. All BioVill and CoolHeating partners highlighted that they will continue their engaged work and support to foster renewable energy approaches in South-Eastern Europe.

7. Annex

Annex 1 – Agenda of the Final International Conference of the BioVill and CoolHeating projects

Annex 2 – Feedback form

Annex 3 – Press Release