

DOCUMENTATION ON FINAL PROJECT CONFERENCE

Store4HUC_D.C.6.3

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1. Summary

The event started with a welcome and a short introduction of the two projects and the agenda for the event. While Fabio Remondino (FBK Trento, Italy) introduced the TARGET-CE project, Katja Karba (Development agency Sinergija, Slovenia) gave an overview about the store4HUC project.

Afterwards Viktorija Dobravec (Interreg-CE Joint Secretariat, Austria) gave an outlook to the Interreg CENTRAL EUROPE programming period 2021-2027 and first calls.

Subsequently, the solutions which were developed within the project were presented. For each project there were two presentations about different tools and results.

Anna Nowacka (EUWT, Poland) demonstrated the TARGET- CE OnePlace platform. There solutions and tools, which were developed in former projects, are collected and adjusted for the general use. Moreover, the function of the different tools was explained. The speaker also talked about challenges concerning the project.

Ilaria Bertuzzi (UCBR, Italy) and Hana Kolenc (KSSENA, Slovenia) shared their experiences in training students and teachers towards energy savings. They organized workshops concerning the thematic and helped the students to become energy guardians. The focus was to implement the Energy@school app at several schools in order to gain some experiences with the tool and to make the simulation game more popular.

Robert Pratter (4ward energy, Austria) explained the function and the benefits of the Autarky Rate Tool, which he developed within the Store4HUC project. He also demonstrated how it is used.

As last presentation for the agenda item Filip Rukavina (FER, Croatia) introduced and demonstrated the Optimal Sizing Calculator and the Optimal Heat Source Scheduler, which are energy management tools for expert users.

Before the next presentations, there was a coffee break where the participants had the opportunity to exchange ideas and make new contacts.

After the break some partners of the two projects presented their pilot activities. At first two speakers of the TARGET- CE project shared their results. In addition, three representatives of the Store4HUC project talked about their implementations.

Karol Slupiński (EUWT, Poland) explained the creation and the benefits of the solar cadastre for municipalities in polish- czech cross- border areas.

Mateus Kruz (MAE, Poland) introduced the Energy Monitoring System in Podkowa and presented the pilot sites which were chosen for the implementation of the system.

Andrea Dornhofer (W.E.I.Z., Austria) talked about the challenges and benefits of the implementation of the central heat storage in Weizberg in Austria.

Elisa Marino (City of Cuneo, Italy) presented the inclined sloping elevator at Cuneo, which was made more energy efficient by installing photovoltaic plants and a storage system.

Martina Krizmanić Pečnik (REGEA, Croatia) introduced the Bračak Manor, where photovoltaic and battery systems were integrated in order to make the listed building more energy efficient.

Following the presentation of the activities there was a lunch break with further networking possibilities.

Afterwards four speakers presented similar activities which also concerned energy efficiency.

Michael Heidenreich (CES, Austria) presented the STARDUST project which aims to find long-run solutions for energy, mobility and ICT. The following presentation was held by Piergiorgio Cipriano (Dedagroup, Italy), who worked on solutions on energy- related geodata for urban applications for 15 years. He shared the results of two of his projects which are the Sunshine project and the CitiEnGov project. Subsequently,



Ivana Ostoic (Sustainable Solutions, Croatia) presented the MED Pegasus project, which simulated the functioning of Migrogrids in 7 pilot areas. The last presentation was held by Prof. Davide Astiaso Garcia (Università La Sapienza, Italy) who shared his experiences on transferring a toolkit for the integration of renewable energy sources to Mediterranean islands and rural areas.

The end of the event was planned more interactive. The participants should answer to 12 questions concerning solutions for the energy transition, the organisation of the European projects and other issues.

2. Date and place

The conference took place on the 23th of March 2022 at the Riva del Garda Congress Centre. For participants who could not come to Italy there was the possibility to join via Zoom.

The address of the congress centre: Parco Lido, 1, 38066 Riva del Garda TN, Italy



3. Number and types of participants/target groups

The number of people who signed the list is 36. Eight participants joined the event via Zoom. Thus, the total number of participating people is 44. Most of the participants were partners of one of the two projects. But there were also representatives from municipalities and universities.

4. Topics tackled and links to deliverables, outputs

At the beginning of the event the aims and idea of the two projects were demonstrated by the two project coordinators. Fabio Remondino (FBK Trento, Italy) explained that the project collected, adjusted and deployed new ICT tools, financial models, action plans and trainings to the local and regional administrations and integrated them into territorial and thematic strategies. For this purpose a platform was created. Katja Karba (Development agency Sinergija, Slovenia) gave an overview of the achievements



which were made within the project. She introduced the energy storage solutions, the tools and the objectives, of which all have been achieved. Moreover, she showed a video which was produced by the German consortium partners and which tells the whole story of the Store4HUC project in a few minutes.

Viktorija Dobravec (Interreg-CE Joint Secretariat, Austria) informed about the new programming period 2021- 2027. The Interreg funding line will apply to 81 regions in 9 countries. Furthermore, the four programming priorities, which are innovative societies, water-smart societies, climate-neutral societies and cooperation governance, were named. The speaker stated that the first call, which already closed, was successful because there were many applications. She also mentioned that the second call will open soon.

Anna Nowacka (EUWT, Poland) explained the aims and the function of the TARGET-CE OnePlace platform. On the platform tools, outputs and strategies from eight former projects, which are related to energy efficiency, are collected. The website is divided in 5 modules which are marketplace, EE cities, EE strategies, EE finances and EE tools. The speaker explained that the tools were the most challenging part because they were dedicated to specific pilot sites and therefore needed to be adjusted. The five tools were also demonstrated during the presentation.

Ilaria Bertuzzi (UCBR, Italy) and Hana Kolenc (KSENA, Slovenia) explained the function of the Energy@school app. It should train children and teachers to save energy. The students have to collect data related to the temperature and time. As result the app calculates the electric and thermal consumption of the school. If the app detects something that can be improved a ghost will appear and the school has to find the mistake. During the game points can be gained or lost. Therefore, it is possible to compete with other schools.

Robert Pratter (4ward energy, Austria) presented the aims and function of the Autarky Rate Tool. The tool should show the potential of storages in combination with renewable energy resources by doing a technical, economic and ecological evaluation. No special knowledge is necessary to use the tool. The speaker switched to the tool and demonstrated how it works by explaining all the parameters which need to be inserted. He also conducted an example calculation and explained the results. Through a checklist the users can save their calculations in order to compare different combination possibilities.

Filip Rukavina (FER, Croatia) explained the idea and function of two energy management systems. The idea of the Optimal Sizing Calculator is to increase the amount of renewable energy sources and to improve the flexibility of the system. It can be useful while planning an investment. In contrast to that, the Optimal Heating Scheduler helps to find the most efficient way to use the system. Hence, the full potential of thermal energy storages can be exploited. In addition to the explanation of the benefits example calculations were demonstrated while the different features which need to be filled in were clarified. The tools are designed for expert users.

Karol Slupiński (EUWT, Poland) talked about the process of developing a solar cadastre for municipalities. At the beginning the definition and advantages of a solar cadastre were given. Afterwards the speaker explained the steps which were necessary to create the solar cadastre. Firstly, geospatial data has to be collected. After that, the insolation sum and possible energy yields can be calculated. As a final step an interactive map, which gives information about the possible energy yield of different buildings, can be created.

Mateus Kruz (MAE, Poland) introduced the energy monitoring system in Podkowa. For the implementation of the system seven buildings, which differed in their functionality, parameters and energy classes, were chosen. The system provides accurate measurements to monitor the electricity and water consumption as well as the energy production. The system is easily transferable because the installed meters do not need much space. One benefit of the system is that it shows how the building can be managed and modernized in order to achieve savings.

Andrea Dornhofer (W.E.I.Z., Austria) presented the Weizberg parish, which received a central thermal energy storage tank in connection with decentralized hot water storage tanks in order to increase the energy efficiency. She gave some information about the location and challenges they had to face.



Afterwards the participants learned about the investment costs, the payback time and several advantages of the implementation. Through the project activity carbon dioxide emissions could be saved and the lifetime of the plant could be increased.

Elisa Marino (City of Cuneo, Italy) talked about the process and the results of the implementation at Cuneo. As Cuneo is located on a plateau, the different in height is eased through a sloping elevator, which is widely used. The speaker explained the costs, the steps and the challenges of the project. The first monitoring period showed that more than half of the needed energy was provided by the photovoltaic plants. But it must be noted that the insolation will be higher during the spring and summer months.

Martina Krizmanić Pećnik (REGEA, Croatia) introduced the Manor Bračak, where photovoltaic plants, a storage system and a computer-based monitoring system were implemented. Some numbers about the investment were shown. Since the electricity prices increased significantly, there have been some monitoring issues. The building can serve as a best practice example from which other projects can learn.

Michael Heidenreich (CES, Austria) presented the STARDUST project. The aims of the project are to implement and validate green technical and non-technical solutions at three lighthouse cities. Thereby, all measurements should be bankable and replicable for other cities. In order to achieve a long-term impact the financing of the solutions should be possible for follower cities. Moreover, stakeholder and citizen have to be integrated in the project.

Piergiorgio Cipriano (Dedagroup, Italy) presented two of his projects concerning energy- related geodata for urban applications. During the Sunshine project simple data about buildings was used to estimate the energy performance. The result was the creation of the Ferrara Energy Map which includes 50000 buildings. The CitiEnGov project defined a way to standardize data from different sources.

Ivana Ostoic (Sustainable Solutions, Croatia) introduced one of the pilot sites (the Preko Case) where a micro grid was implemented. Hereby, a photovoltaic plant, which should supply four users, was installed. Afterwards data on the energy consumption was collected. The results show that the micro grid leads to financial and environmental savings. Moreover, it has a good social impact. Business models for micro grids on islands should be developed within the project.

Prof. Davide Astiaso Garcia (Università La Sapienza, Italy) presented the PRISMI Plus Project. The aims of the project are to decarbonise the energy mix of islands and to reduce unemployment by creating green jobs.

5. Expected effects and follow up

The aim of the event was to present all the solutions and results which were made within the two projects. Moreover, projects with similar topics could introduce themselves. Interested communities can adopt the developed strategies and use the tools in order to become more energy efficient. The best practice examples show what is possible and can therefore encourage other stakeholders to implement storages and renewable energy sources. Some of the tools will be updated frequently.

6. Discussion

After every presentation there was the opportunity to answer questions. In some cases the questions could also start to a discussion on several issues.

The presentation of the new programming period and the first calls lead to a question concerning the second call. It was not clear what the new projects should look like exactly. Viktorija Dobravec (Interreg-CE Joint Secretariat, Austria) explained that the projects will be smaller and should include concrete implementations, because the solutions would already be there.



Moreover, a participant wanted to know how the municipalities replied to the tools used within the TARGET-CE project. Anna Nowacka (EUWT, Poland) replied that the tools are really useful for small cities, which do not have their own software and knowledge. Several follow up cities stated that they want to use the tools.

The next question concerned the Energy@school app. It was asked whether it was complicated to transfer the game to other schools also because the school needed the right sensors which the children can read. Hana Kolenc (KSSENA, Slovenia) stated that the game itself is pretty clear and simple. Hence, the integration of the app in a school is rather easy. Furthermore, many schools do already have the right sensors. If the school does not have the sensors yet, it might be a good investment because it helps to lower the energy consumption.

Concerning the Autarky Rate Tool a participant wanted to know whether the background information like the energy price will be updated. Robert Pratter (4ward energy, Austria) insured that it will be updated at least once a year. If prices change more quickly, this will be the case more often.

In addition, there was a question about the creation of the solar cadastre. It was asked whether the information of the angles of the roofs had been available. Karol Slupiński (EUWT, Poland) answered that the data derived from a digital surface model.

About the thermal energy storage at Weiz it was asked if it is easily replicable. Andrea Dornhofer (W.E.I.Z., Austria) affirmed that it can be transferred to other places. She said that it was the first project of this kind and that other cities are interested because there are many little district heating systems in Austria which can profit from the experiences of the pilot activity. The higher gas prices might even increase the interest.

Another participant wanted to know why the photovoltaic plants at Cuneo were only installed at the lower part of the sloping elevator and whether there have been any complaints concerning the project. Elisa Marino (City of Cuneo, Italy) explained that they intended to reduce the visual impact of the installation. Furthermore, the installed plants produce enough energy. There actually have been complaints because there is a protected area nearby. However, the city of Cuneo replied that they had the permission for the installation, given by the landscape organisation, and that the benefits would be much higher than the disadvantages.

Because of the duration of the payback period of the Croatian pilot (41 years) astonishment was expressed. It was discussed whether the costs would discourage people to realize similar projects. It was also asked if projects like that are subsidized in Croatia. But that is not the case.

The last question linked the developed tools to the functioning of micro grids. It was asked whether the tools would be useful for the Pegasus project. Ivana Ostoic stated that the tools could help to decide in which way the storages are installed.

At the end of the event the participants had to answer some questions concerning the future of European projects and the energy transition. Everybody who wanted could express and explain their own opinion on the proposed topics.

Most of the participants agreed that light pollution needs more investment (R and D) and innovative solutions.

Afterwards there was a discussion whether biomass could be a green solution. In bigger cities the measurement leads to high air pollution but in smaller communities like Weiz it can be a reasonable solution.

The next question concerned local and regional strategies and how they could be implemented more effectively. Some suggestions were to provide more funds, to make them legally binding and to engage citizen.



It was asked what topic was not addressed at the event but should have been. Some of the named topics were policy makers, transportation and investment efficiency.

Another discussion point was how tools and solutions can be sustained and further deployed. Participants stated that outcomes should be simple and freely accessible. Furthermore, there should be more promotion and showcases.

In addition, it was asked how public authorities could be motivated to take part in projects. Most of the participants think that the benefits of the projects should be clearly demonstrated. Moreover, pilot investments are important.

The next questions concerned the output of the projects. The majority thinks that pilot actions and trainings contribute the most to achieve the desired change in targeted regions. Tools, pilot actions, trainings and success stories are seen as outputs which can be transferred most effectively.

At the end, the effect of synergies between projects were discussed. Most of the participants think that it depends on the type of a project whether synergies bring additional value to regions and target groups. Since the majority does not have clear experiences, they do not know if the programme should further support synergies between projects. But there were also people who stated that synergies are really important because they prevent project from doing the same work twice. Some added values of synergies could be the exchange of know-how and the deployment of lower costs.



7. Annexes

7.1. Invitation



INVITATION TO STORE4HUC CONFERENCE

Zoom login: Store4HUC Conference in Riva del Garda, Italy

Time: 09:30 - 16:00 on March 23rd 2022

The Joint Final Event!

The Store4HUC conference is coming up soon! It will take place at the Riva del Garda Congress Centre in Italy. All achievements and results made through the Store4HUC project are presented. You are very welcome to join us to learn all about the projects solutions and the pilot activities.

The exact address of the congress centre: Parco Lido, 1, 38066 Riva del Garda TN, Italy

If you would like to attend the event online, please use the following link:

Join Zoom Meeting

us06web.zoom.us/j/82366534828

Meeting ID: 823 6653 4828

Find your local number: us06web.zoom.us/u/kecdq1hFRz

9:30- 9:50, **Welcome and intro**

- Fabio Remondino (FBK Trento, Italy - TARGET-CE coordinator)
- Katja Karba (Development agency Sinergija, Slovenia - STORE4HUC coordinator)



9:50- 10:00, Outlook to the Interreg CENTRAL EUROPE programming period 2021-2027 and first calls

- Viktorija Dobravec (Interreg-CE Joint Secretariat, Austria)

10:00- 11:00, Presentation of project solutions

- The TARGET-CE OnePlace platform: a hub of energy efficiency solutions
Anna Nowacka (EUWT, Poland)
- Experiences in training students and teachers towards energy saving and becoming energy guardians
UCBR + KSSENA
- Autarky rate tool: indicator for the (in)dependence from the public grid
Robert Pratter (4ward energy, Austria)
- Optimal Sizing Calculator and Optimal Heat Source Scheduler
Filip Rukavina (FER, Croatia)

11:00- 11:30, Coffee break and networking

11:30- 13:00, Presentation of pilot activities

- Solar cadastre for municipalities in cross-border area
Anna Nowacka (EUWT, Poland)
- Energy monitoring system in Podkowa (Poland)
Mateusz Kruk (MAE, Poland)
- Central heat storage in Weizberg in Austria
Andrea Dornhofer (W.E.I.Z., Austria)
- Inclined lift energy efficiency pilot project in Cuneo in Italy
Elisa Marino (City of Cuneo, Italy)
- Integration of photovoltaic and battery systems in Bračak Manor
Miljenko Jagarčec (REGEA, Croatia)

13:00- 14:00, Lunch break, pictures and networking

- Presentation of similar activities 15 years of technology development to support energy efficiency in urban scenarios
Piergiorgio Cipriano (DedaGroup, Italy)

15:30- 16:00, Questionnaire, wrap up and conclusions

- Fabio Remondino (FBK Trento, Italy - TARGET-CE coordinator),
- Štefan Žohar (Development agency Sinergija, Slovenia - STORE4HUC expert)



Quelle: „Catamarano“ Archivio Garda Dolomiti S.p.A.

STORE4HUC - ENERGY STORAGES AT HISTORICAL URBAN CENTRES

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DISCOVER MORE ABOUT STORE4HUC



7.2. Agenda

<p style="text-align: center;">AGENDA <u>Congress Centre, Riva del Garda, Italy</u></p>	
09:30-09:50	Welcome and intro - Fabio Remondino (FBK Trento, Italy - TARGET-CE coordinator), Katja Karba (Development agency Sinergija, Slovenia - STORE4HUC coordinator)
09:50-10:00	Outlook to the Interreg CENTRAL EUROPE programming period 2021-2027 and first calls - Viktorija Dobravec (Interreg-CE Joint Secretariat, Austria)
PRESENTATIONS OF PROJECT SOLUTIONS	
10:00-11:00	<ul style="list-style-type: none"> ● <u>The TARGET-CE OnePlace platform: a hub of energy efficiency solutions</u> - Anna <u>Nowacka</u> (EUWT, Poland) - 15' ● <u>Experiences in training students and teachers towards energy saving and becoming energy guardians</u> - <u>Ilaria Bertuzzi</u> (UCBR, Italy) + Hana <u>Kolenc KSENA</u> - 15' ● <u>Autarky rate tool: indicator for the (in)dependence from the public grid</u> - Robert Pratter (4ward energy, Austria) - 10' ● <u>Optimal Sizing Calculator and Optimal Heat Source Scheduler</u> - Filip Rukavina (FER, Croatia) - 20'
11:00-11:30	Coffee break and networking



PRESENTATIONS OF PILOT ACTIVITIES	
11:30-13:00	<ul style="list-style-type: none"> ● Solar <u>cadastre</u> for municipalities in <u>polish-czech</u> cross-border area - <u>Karol Slupiński</u> (EUWT, Poland) ● Energy monitoring system in <u>Podkowa</u> (Poland) - <u>Mateusz Kruk</u> (MAE, Poland) ● Central heat storage in <u>Weizberg</u> in Austria - <u>Andrea Dornhofer</u> (W.E.I.Z., Austria) ● Inclined lift energy efficiency pilot project in <u>Cuneo</u> in Italy - <u>Elisa Marino</u> (City of Cuneo, Italy) ● Integration of photovoltaic and battery systems in <u>Bračak Manor</u> - <u>Miljenko Jagarčec</u> (REGEA, Croatia)
13:00-14:00	Lunch break, networking and group picture
PRESENTATIONS OF SIMILAR ACTIVITIES	
14:00-15:30	<ul style="list-style-type: none"> ● STARDUST, intelligent solutions for energy, mobility & ICT - <u>Michael Heidenreich</u> (CES, Austria) ● 15 years of solutions on energy-related geodata for urban applications - <u>Piergiorgio Cipriano</u> (DedaGroup, Italy) ● Enlarging renewable production in Trentino province: solar source and sharing uses - <u>Sara Verones</u> (Autonomous Province of Trento, Italy) ● PRISMI Plus Project - Transferring a toolkit for RES Integration in Smart Mediterranean Islands and rural areas - Prof. <u>Davide Astiaso Garcia</u> (Università La Sapienza, Italy) - online ● MED Pegasus - Functioning of <u>microgrids</u> - <u>Ivana Ostoic</u> (Sustainable Solutions, Croatia) - online
15:30-16:00	Questionnaire, wrap up and conclusions - <u>Fabio Remondino</u> (FBK Trento, Italy - TARGET-CE coordinator), <u>Axel Veitengruber</u> (Climate Alliance, Germany - STORE4HUC communication coordinator)

7.4. Pictures

Fabio Remondino (FBK Trento, Italy)



Katja Karba (Development agency Sinergija, Slovenia)





Viktorija Dobravec (Interreg-CE Joint Secretariat, Austria)



Anna Nowacka (EUWT, Poland)

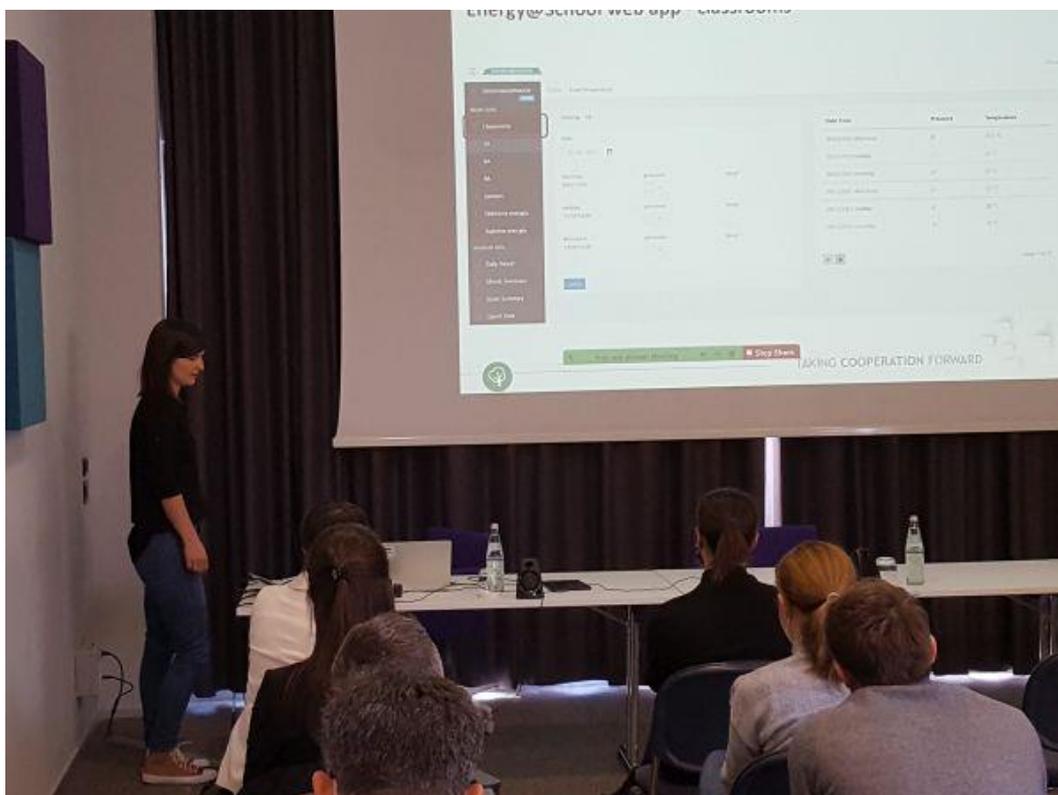




Ilaria Bertuzzi (UCBR, Italy)



Hana Kolenc (KSENA, Slovenia)

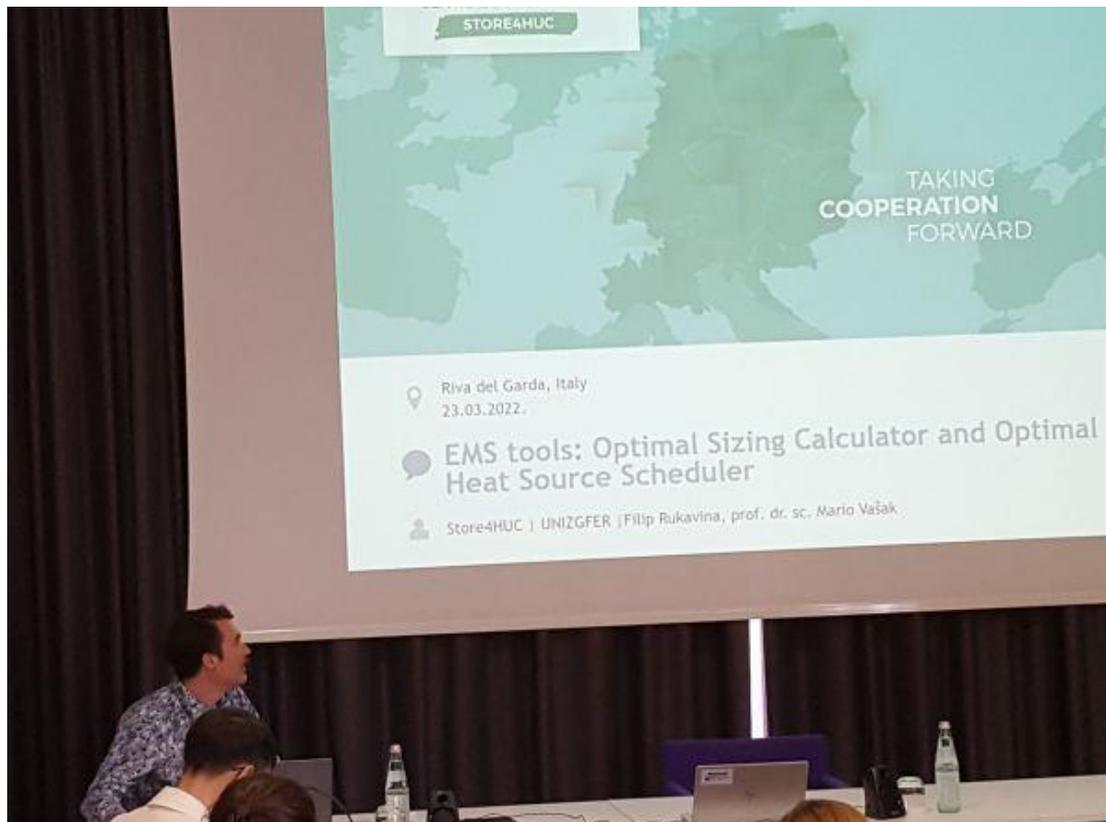




Robert Pratter (4ward energy, Austria)



Filip Rukavina (FER, Croatia)



Karol Slupiński (EUWT, Poland)



Mateus Kruz (MAE, Poland)



Andrea Dornhofer (W.E.I.Z., Austria)



Elisa Marino (City of Cuneo, Italy)





Martina Krizmanić Pećnik (REGEA, Croatia)



Michael Heidenreich (CES, Austria)



Piergiorgio Cipriano (Dedagroup, Italy)



Ivana Ostoic (Sustainable Solutions, Croatia)



Prof. Davide Astiaso Garcia (Università La Sapienza, Italy)



7.5. Media coverage

<https://www.facebook.com/store4huc/posts/2042481559263516>

<https://www.facebook.com/store4huc/posts/2041609279350744>

<https://www.linkedin.com/feed/update/urn:li:activity:6909896960430796800>

<https://www.linkedin.com/feed/update/urn:li:activity:6909472926601793536>

7.6. Web-links

<https://www.interreg-central.eu/Content.Node/news/Final-Conference.html>

<http://www.climatealliance.it/conferenza-finale-store4huc-target-ce-interreg-central-europe/>