

Renewable Energies: How to accelerate technology uptake?

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The commentator of the online workshop is **Chris Burns**.

Agenda



- ECCP news: Support for Ukraine on energy equipment
 Gian Marco Desogus, Programme Officer, Directorate-General for European Civil Protection and
 Humanitarian Aid Operations (DG ECHO), European Commission
 Iryna Krymus, Ukraine Support Task Force, Energy Community Secretariat
- 2. From Our Own Correspondent: ELBE Eurocluster
- Perspectives from the European Commission
 Jacek Truszczynski, Deputy Head of Unit at Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), European Commission
- Panel debate: how can we accelerate the technology uptake for renewable energies?
 Frederik Loeckx, Managing Director, Flux50
 Marc Rechter, Board Member, MCPV
 Marcos Suárez García, Project Manager, Basque Energy Cluster
 Sean Finlay, Director, Geoscience Ireland
- 5. Funding opportunities



The session starts with the support for Ukraine – energy equipment. The first speaker is Gian Marco Desogus.









Gian Marco briefly describes the role of the EU Civil Protection Mechanism.



It was initiated in October 2001 to strengthen the cooperation between the EU member states and other state participants. The principle behind this is that when we have an emergency that overwhelms the country's response capability in Europe and beyond, the country can request assistance through the Mechanism. The EU Commission plays a key role in coordinating the disaster response by contributing to the transport and all operational costs of deployment.

As you can see, the Mechanism has been activated over 600 times since 2001, in emergencies ranging from natural disasters to pandemics and conflicts.





Channeling energy items to UA – Backgr



- Since the outset of the invasion, UA has sent to the EU, MS and companies lists of needs in the energy sector.
- Commissioners LENARCIC and SIMSON agreed to join forces and associate the UCPM to channel eventual offers of assistance and support the delivery to UA;
- DG ECHO agreed to run a pilot whereby specific in-kind offers from private companies in the energy sector are to be donated to UA through the UCPM.
- Energy Community DG ECHO cooperation: channeling offers from private companies in the energy sector.

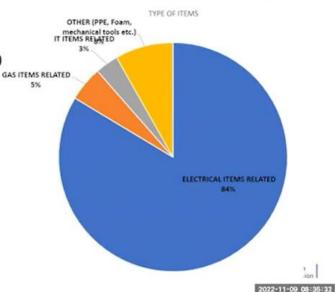


After the Russian invasion, Ukraine has been sending several lists of needs to the EU commission. This list also includes the energy sector – mostly equipment needed to repair existing energy systems that were damaged or destroyed because of the war.

The EU Commission is currently collaborating with the Energy Community secretariat in the donation process that also involves the national authorities of civil protection, which agreed to channel the offer on behalf of the private companies based on their respective countries. These deliveries are supported by the use of the European civil protection mechanism logistic hubs that are based in Poland, Romania and Slovakia, and the transport is financed 100% by the EU.

Russian war to Ukraine – Donations from MS

- From the beginning of the Russian invasion into UA, over 70 donations of Energy related items have been channelled by MS/PS under the UCPM.
- Over 30 donations out of the 70 were channelled through the framework of cooperation between ECHO and Energy Community.







WHAT ARE THE URGENT NEEDS OF THE UKRAINE?





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Next speaker is Iryna Krymus



Physical donations are needed, such as energy equipment, fuels and materials. Energy Community Secretariat was established and currently assists with providing energy equipment to Ukraine. They work with the Ministry of Energy, which collects the needs and requests of energy companies in Ukraine. That created a long list of their needs. They then communicate this list with donors and assist them with their donations from A to Z. They do administration and everything that donors need to make the contributions happen (f.e. logistics).

Iryna draws attention to the importance of support and donations for Ukraine.





Follows the video of the ELBE Eurocluster.



Next speaker is Jacek Truszczynski

A few words about the policy and plans.

How to speed up the uptake of renewable energies?

One aspect is the deployment and how to instal windmills and solar panels; the second is how to strengthen the supply chain of those technologies.

How to make sure we have enough of the supply chain in the EU?

We should only depend a little on foreign suppliers with the current situation. There is a real risk that our dependence on Russia would be exchanged for our reliance on China, and we must avoid this.

In DG GROW, focus on the second aspect. It is a challenging context. **First**, the price of energy is high; on the other hand, it opens up new opportunities for investments, but still, prices are eight times higher than in the USA. **Second**, they would like to restore those supply chains for clean technology, but other countries and jurisdictions are doing the same at the same time. **Third**, supply chain distributions – we are still facing the post-pandemic situation where access to certain raw materials and components is difficult. This makes the emergence of new ecosystems challenging. Even though we face challenging contexts, this does not mean we are starting from zero.

Europe is still an influential actor in those technologies. Look at the batteries. In 2018 they set up a so-called European battery alliance to become one of the leading producers of the leading technology in the world, and they have succeeded. More than 120 bil EUR have been mobilised in investments since then. EU will soon have 30 gigafactories of batteries in Europe.





Even though the batteries were made in the EU, we still depend on materials from China that are necessary to produce those batteries.

What are they working on right now?

They are working on permits. Accelerate project deployment is really about the deployment, not the supply chain, but not only. The permitting aspect is an issue at the moment. If our industry lacks sufficient projects in the EU, the EU Commission has proposed to radically accelerate permitting procedures and shorten from seven years to one or a maximum of two years to issue a permit and deploy Renewables projects.

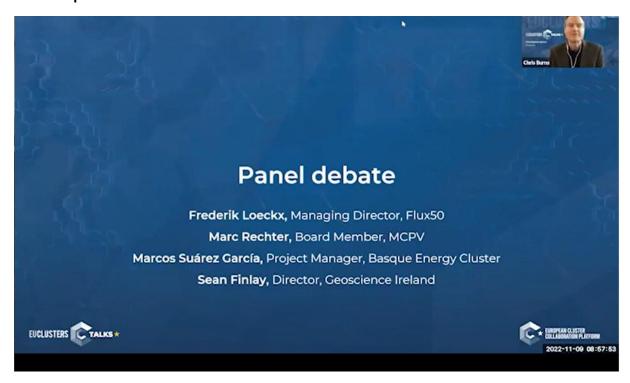
Second, Battery Alliance which was mentioned already. They have the Battery Alliance and would like to continue with Alliance for solar or, in the future, for wind.

Third, product standards. The EU must protect their excellence in certain environmental aspects of Technology production. If you look at the EU solar panels or other energy equipment produced in the EU, the environmental impact is smaller than in China, and that is because of the mix of clean energy. There are standards in the EU, and the EU needs to ensure that products imported into the EU face the exact requirements as those manufactured in the EU. There is an Eco design framework where they set standards and battery regulations.

Fourth, financing. The EU is trying to increase available funds.

Fifth, the EU is still dependent on raw materials, which needs to change in the future.

Follows questions and Panel debate









The first speaker in the panel is **Frederik Loeckx**.

Chris asks: Can you please tell us about your company and how you are trying to accelerate this?

Frederik is the Managing Director of Flux50. It is a cluster organisation in Flanders, Belgium, managing a cluster of around 230 companies, new knowledge institutes, and local authorities. They try to accelerate the energy transition from a system perspective. For them, Renewables are part of the energy system, and they need to find airspace inside that Energy system. They are managing the cluster not only to accelerate the energy transition but also to prove that there is economic value in it.

Chris asks: Do you already see a lot more members and a lot more interest in what you are doing since the energy crisis we are facing?

Frederik: In Flanders, we are one of the sectors doing quite well. We can't complain in terms of the number of our members. If we compare ourselves to another sector in Flanders, we have a rather positive than the negative problem. But still, there are things we are facing—F.e. lack of trained people, supply chain.

Chris: Can you mention how you help clusters?

Frederik: We are managing some collaborative projects between research institutes and companies. One is a project on building digital twins for neighbourhoods where we can quickly identify similar buildings in a specific neighbourhood and approach them with group purchase programs for renewables, heat pumps or solar panels. We have installation companies who can approach a neighbourhood rather than separate buildings. On the other hand, we are also quite busy teaming up with many installation course providers in Flanders and internationally through collaboration with other clusters to create courses for those installation companies to help them accelerate the uptake.







We are moving on to Marcos Suárez Garcia from the Basque Energy Cluster.

Chris: How are you accelerating things?

Marcos introduces their cluster. It is very similar to cluster Flux50. They also have around 200 members in the north of Spain, in the Basque country. They are working in the energy field but are focused on the wind and renewable energy sectors in general.

They support their companies. He believes that Renewable energy is an excellent opportunity since there are yet to be enough supply chains. There is a lack of wind energy supply chains. They travel and collaborate with their members with American and Asian companies. They bring their members to trade events and connect them with the local network.

Moving to Marc Rechter, the Board Member of MCPV.







How do we accelerate solar power through the clusters?

MCPV is doing what Jacek indicated before. We are accelerating the EU supply chain by developing, implementing, and operating gigawatt-scale PV cell and module manufacturing plants throughout Europe and three European countries. About three or four years ago, we identified that this would be a crucial energy security risk apart from addressing European industrial renewal. We look at Europe's industry today; it is highly energy-dependent, and much of that energy comes from outside Europe. And I think that is the crucial risk that Europe faces. This is one of the topics which is also one of their goals. To have more sources in Europe. Back in 2019, when we mentioned that we would develop 15 gigawatts of annual PV capacity cells and modules in Europe, most people were laughing at us. Isn't that done in China, and can we ever compete in Europe? But we are doing it!

Chris: What about the supply chain? How are you addressing that supply change too?

Mark: It is not something that one company could do by itself. We must build the supply chain and the value chain in Europe. It is a challenge. We need to coordinate with our upstream and downstream supply chain partners, so it's our clients and suppliers. Let's say the combined risk of making a very substantial investment in productive assets, and so the challenge in that is the timing and raw materials. The good thing about solar PV is that we have those raw materials in Europe so that we can be independent; we need to scale up. That is what we are trying to achieve.

Let's move on to Sean Finely over in Ireland, the director of Geoscience Ireland.



How are things going over there regarding the transitions to renewable energy?

Before he talks about geothermal energy, it is worth noting that our potential in Ireland for offshore wind energy is an event. Our land area is ten times smaller than our marine area, should put it the other way, our marine area is ten times bigger than the land area, and there is a potential to produce up to 80 gigawatts of electricity which of course we don't need in Ireland but would need to be transported to Europe.

Chris jumps in: There is the grid issue.





Sean agrees. He is interested to hear the comments from DG GROW colleagues. There is a significant overall of our planning system underway and likely to come before Parliament before the end of the year, and that's absolutely essential, as is the upgrading of the grid and course connectors to Mainland Europa and Britain. There is a connector on the way between France and Ireland, and he thinks that is extremely important, but their internal commitment also needs to be strengthened.

Sean is glad to know that the renewable energy directive does include mention of geothermal energy as a vector. Still, he is disappointed that there are yet to be dedicated measures in DG GROW. It is an area where we could be very legitimately included in the renewable energy mix; it's already a feature in parts of European countries. About 60% comes from geothermal energy in Sweden, and Sweden is not considered a traditionally very endowed country. In Paris, he thinks it's either a million homes or a million people enjoy districts teaching from geothermal energy. Also, Turkey and Germany. So the potential is there, but data is the big problem with risking geothermal energy. Good data always risks any project. He thinks there is a role for the commission and local and National governments to get more information on the subsurface by carrying out seismic surveys and drilling projects; without data, your risks in every area increase.

They are delighted to be part of the European project called Geo energy Europe too, which COSME manages. The objective is to understand opportunities for EU SMEs to develop business in geothermal energy and for a selected mark. Our ability to deliver that project has been dramatically constrained by our inability to travel in recent years. Still, we have Market study visits to Kenya, Chile, and Canada, currently underway to Costa Rica.

The other project is European technology and an Innovative partnership project on geothermal energy. It looks at the challenges and opportunities we must address to develop this sector.

Chris asks, what percentage of energy could be generated by geothermal in your dreams?

Sean: 80% globally; in Europe, it could be 10%. It isn't a silver bullet, but it is a mix.

FOLLOWS A SHORT DISCUSSION





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- HORIZON-RIA HORIZON Research and Innovation Actions; TOPIC ID: HORIZON-CL5-2022-D3-03-03
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