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Deliverable 5.3 – Organisation and outcomes of the Ecolabels for PV panels event

Prepared by: EUREC



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About PV IMPACT

PV IMPACT will try out a variety of approaches to stimulate PV research, development and innovation initiatives in Europe. The first part of the project will focus on inviting companies to matchmaking events so they can find partners with whom to work on future projects under EU and/or national funding schemes. The project will also target two specific industrial companies: ENEL Green Power and Photowatt. Another important part of the project will be to monitor progress in PV. Data will be collected on public spending in the EU, on private spending, on the kinds of projects being funded and on the overall performance of PV technology. Forecasts for future spending will be made according to various scenarios. The project will track whether improvements in the performance of technology are keeping pace with expectations and will make recommendations to European funding authorities.

PV IMPACT Partners







Document information

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RE	Restricted to a group specified by the Consortium (including the Commission Services)	
СО	Confidential, only for members of the consortium (including the Commission Services)	





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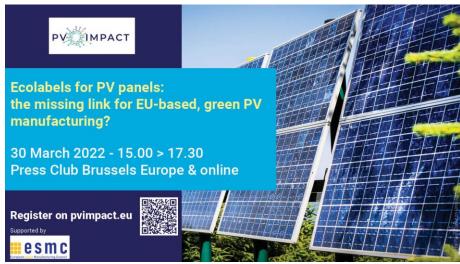
1. Introduction

The Deliverable 5.3 was originally titled *List of briefings with EU Authorities* and is part of the Task 5.3 *European level dissemination – regional funding*, included within Work Package 5 on communication and dissemination activities. However, following the unsuccessful attempts to arrange briefings at the DG Energy's biannual Energy and Managing Authorities meeting and after consultation with the project officer, it was agreed to refocus the task towards organisation of an event on ecolabels for PV panels. The objective of the present deliverable is to give an overview of the *Ecolabels for PV panels: the missing link for EU-based, green PV manufacturing?* event organised in-person and online on 30 March 2022.

This deliverable includes the agenda and summary of panels, pictures, number of participants, role of the partners participating in the organisation of the event, and communication activities to promote the event.

The present deliverable is due by the end of month 36 of the project, which is the end of March 2022. EUREC led the event organization with the support from InnoEnergy, Becquerel Institute, Photowatt, WIP, the European Solar Manufacturing Council and the support of the other project partners, who used their networks and channels to attract relevant participants, and to widely promote the event.

2. Ecolabels for PV panels: the missing link for EU-based, green PV manufacturing? event







Event's focus and objective

While the solar photovoltaic market is booming globally, the question of sustainability has never been more important than now. PV paves the way for drastically reducing carbon emissions in Europe and globally, accelerating the energy transition and significantly contributing to job creation and economic value. However, the question of how to improve the sustainability of PV products remains at the core of the political agenda, as the energy sector must be made cleaner, greener and more sustainable. One key policy instrument to increase the sustainability of PV products is the concept of ecodesign and its derivatives. This event intended to provide an overview of the current situation and highlight the positive impacts on the market and industry that such policies could trigger.

The event in numbers

The Ecolabels for PV panels: the missing link for EU-based, green PV manufacturing? event was organised in a hybrid manner (i.e. in-person and online) on 30 March 2022 in the <u>PressClub Brussels</u> <u>Europe</u>. It hosted 35 participants in-person and further 93 unique participants joining remotely via Zoom platform, totalling 128 participants, including 12 expert speakers (i.e. including moderators).

The event in a nutshell

Introduction by Gaëtan Masson (Founder and Managing Director, Becquerel Institute) Welcoming and presentation of the Agenda and the speakers. Intro to PV IMPACT project and to the PV ecodesign concept.

• **Keynote speech** by Davide Polverini (Policy Officer, DG GROW, European Commission) (joining in-person)

Davide made a presentation of the ongoing preparatory work carried out for ecodesign in Europe. He also made an introduction to the sustainable products policy and the existing tools to make it effective. He explained how every case can be treated differently; depending on the type of product a different tool shall be implemented, and regulation might be mandatory or not. The optimal objective of the European Commission is to implement regulation in a way that will improve the circularity of the products. In 2017 already, the European Commission started to work on a preparatory study based on 4 legal tools: ecodesign, ecolabel, energy label and green public procurement. The results of the study showed that the most effective way was to create a policy mix with a combination of mandatory instruments and green public procurement. Later, through stakeholder meetings, it was decided that the products to be covered by such measures should be PV modules, inverters and systems. Davide presented a generic explanation of the scope of the products and the existing exclusions. Some of the details being considered for the labelling are, among others, durability, energy yield, repairability, recyclability and carbon footprint. When proposing an energy labelling scheme, the Commission needs to define an energy efficiency index. The outcome: two labels meant to act in synergy, one for modules and one for smaller systems. These would be based on two novelty requirements: carbon footprint and quality control of the system. Finally, Davide explained how the Commission is working to prepare a framework with the right procedures, requirements and with a third-party assessment. The process for ecodesign implementation is very long and it is currently in its initial phase – consultation forum. It is





important for all interested parties to participate in this consultation phase, where it is still a working document with the possible legal documents for the potential legal terms. The following phases will still require one more year. Once it becomes official, there will also be a transition period to implement the new law.

Panel 1: Ecodesign & Ecolabel

The first panel focused on the current status of ecodesign and ecolabel options in Europe, the major differences between these concepts, some international experiences and the views of policy actors in Europe.

• *Moderator: Gaëtan Masson (Founder and Managing Director, Becquerel Institute)* (joining in-person)

Speakers:

• Debbie Graham-Clifford (Senior Manager, Global Electronics Council) (joining remotely)

As demonstrated by the recent events such as the war in Ukraine or international negotiations, the global supply chain proves to be fragile; there is still a big dependency in other countries. Debbie presented an overview of GEC's ecolabel concept, and how its implementation and use in the USA is well positioned and suggested this could definitely be a key strategy to position Europe into the circularity of the PV industry. She explained that it is a good tool to apply without the burden of due diligences, which makes it very appealing and motivating for the market itself. Debbie emphasised the importance of a global harmonisation, in order to reach consistency for manufacturers to meet the requirements across different regions around the world. Finally, she announced that already by Q3 of 2022, GEC expects to have their product available in the EPEAT registry.

• Josco Kester (Researcher, TNO) (joining in-person)

Josco talked about the importance of attempts to make PV more sustainable; there is an urgent need to combine transparency (i.e. through labels) and mandatory minimum standards/requirements. He also mentioned how necessary it is for the industry to have a roadmap with clear targets for the short and long run. In his speech, Josco also highlighted the relevance of innovations to achieve sustainable goals and investors to finance these. And for this to become a reality, there needs to be specific regulations to lower the carbon footprint of PV systems and to be able to reach the EU targets. His key message was: quick action is needed and many benefits can come from this, even as an important economic impact in the PV value chain itself.

• Davide Polverini (Policy Officer, DG GROW, European Commission) (joining in-person)

His keynote speech was considered also as an introduction and input for the 1st panel.

Q&A Panel 1:

1. Is technology innovation compatible with ecolabel/ecodesign?





- (Josco) Not only compatible but it is in fact needed to stimulate it. The right targets need to be set.
- As long as it is possible to combine the regulatory approach with innovation.
- 2. Do we need global harmonisation?
 - (Davide) Maybe not global, but we do need an interaction with third party jurisdictions, even as an inspiration/example of good practices.
 - (Debbie) More than a global standardisation, what she suggests is a right management of substances. Not necessary to have a complete global alignment, but at least in materials.
 - Will it be compulsory for manufacturers not to use some specific materials, e.g. lead? Each product, at different stage of the value chain, will fall under a different legal framework. For example, the European Commission would not rule anything affecting the REACH law.

Panel 2: Industry view

The second session highlighted the view of the PV industry in Europe and whether the measures and concepts discussed before could support the ongoing rebirth of the manufacturing industry in Europe. Several industry players presented their views and experiences and provided guidelines on how to best benefit from such policies.

• *Moderator: Javier Sanz (Thematic Leader, Renewable energy, InnoEnergy)* (joining inperson)

Speakers:

• Carsten Rohr (VP Business Development, NorSun AS) (joining in-person)

Carsten talked about sustainable production in Europe from an industrial perspective. NorSun AS factory is producing ingots and wafers with low CO2 footprint, using hydropower, which for them creates competitive advantages in the EU manufacturing sector. In their processes, they cover innovation resulting in the low emissions production process. Modules produced in China do not reach or reach much lower low-emission production. Also, NorSun AS takes into account social and labour standards. For their company it is of strategic importance to be located in Europe – local production leads to less dependency on supply chain issues. Carsten highlighted how social and environmental standard in Europe should never become a competitive disadvantage. On top of this, there should be the right policies in place to promote sustainability. The right local tools and regulations will promote the local European production for the PV value chain. Good practices nowadays: Norwegian environmental footprint studies and French PV tenders.

• Vincent Bes (CEO, Photowatt) (joining in-person)

Vincent talked about how there has been a very strong competition in the manufacturing market in the past 15 years, especially considering the battle against China lost in Europe. Vincent highlighted how we need to recover the energy independency in Europe; and the fact that there is less competitive advantage because of regulation in Europe. He said that every country is trying to play with their own competitive advantage. Key message: We should be strict in the application



of the regulation to have a competitive market and reach a basic product aligned with a sustainable manufacturing and with competitive advantage and protect the values.

• Antoine Chalaux (Commercial Director, ROSI Solar) (joining in-person)

Antoine talked about PV recycling in France. There is a new wave of waste coming to the market. This amount increased in the past years with huge collections of waste. The problem is that the infrastructure for collection and recycling is not there yet. Only a small part is collected, and the process is mostly through crushing, where you lose the valuable raw materials. ROSI allows to recover this critical material. Two main challenges: proving that there is no pollution, and having an economically viable process. Ecolabels would allow recycling companies, such as themselves, to access information on what is inside the module, which would make their processes more effective. Antoine also highlighted the Importance of having our own source of materials (silicon, silver, etc.) specially with the current geopolitical issues.

Q&A Panel 2:

- 1. In rebuilding the EU PV industry through regulation: How far shall we go? How to avoid a boomerang effect like we have seen before?
 - (Carsten) By having minimum requirements or giving value to CO₂ criteria, trying to make the positive effects into a positive advantage.
 - (Vincent) Using lower CO₂ in Europe as a competitive advantage. No need for tariffs, we tried to apply these kinds of rules and we failed, we need to be strict in the application of the basic rules, be consistent.
 - (Antoine) Ecolabel and eco-design won't have a short time effect for rebuilding the PV industry in Europe because the waste will be very low compared with the deployment.
- 2. LG is closing down because of low margins. To what extend is the European industry interested in lowering these margins for a long-term impact? Are there any measures to support this? Why Europe and the United States do not have the appetite to invest more?
 - (Carsten) One thing is environmental aspects, the other is the economy, the profits (financing of manufacturing) In Europe we are not quite yet there in terms of capacity like in the US or India. Financing support will be needed to make it work (OPEX and CAPEX).
 - (Vincent) In the past 15 years, the industry has gone up and down. What is missing is the wheel, like in Hydrogen and batteries, that supports in the hard times, integrating a solar value chain in Europe. And the LG situation is happening in the US. In Europe we still have very relevant skills, which must be used.
 - (Antoine) Recycling activities are used to having low margins. But in the long run, when there is enough waste, recycling will allow the materials to stay in Europe and could bring cheaper materials into the PV market.

Panel 3: Carbon footprint & Green procurement

The second session concerned carbon footprint requirements and discussed past lessons learnt and future possibilities for the European industry. Green public procurement was also at



the core of the debate with the option to create some public markets for virtuous products.

Moderator: Nieves Espinosa (Scientific Officer, Joint Research Centre, European Commission) (joining remotely)

Speakers:

• Lucas Weiss (CEO, Voltec) (joining in-person)

Lucas introduced his work at Voltec, a solar manufacturer. They are growing in turnover every year and working right now towards next expansion of 500 GW. He explained how their location in France, a country which invests in low-carbon footprint and eco-design enables them to grow. At Voltec, they have considered not only the energy demand, but also the environmental impact. Through their clean processes, they have been able to lower the quantity of energy in their manufacturing processes to a half in the past 5 years, very significant to lower costs. He explained how it's a cost driven market and at the same time it will also allow to reduce environmental footprint, a non-stop innovation race. Also, in terms of electricity mix; lower footprint if locally produced. In parallel, they are also working towards reducing the use of raw material and increase the recyclability. He considers that it is complicated to put a threshold on carbon footprint because it wouldn't last very long due to the continuous improvement of the technologies.

• Pierre Rale (Photovoltaics Engineer, ADEME) (joining remotely)

Pierre was invited to the session to talk about the carbon footprint criteria in France and the recent tenders. He focused on the call for tenders because the criteria and fit for tariffs is too recent, and not so clear yet. In terms of tenders, he explained how manufacturers must certify their products in 2 ways: through the evaluation of their carbon footprint and by adding sub-values to get the total value for their products. Methodologies to evaluate:

- 1. Standardised methodology through electrical mix of the country. The goal is to give incentives to the industry to use the second methodology
- 2. Life cycle analysis do the LCA (e.g. include water consumption, electricity consumption, etc.)

Then there is a neutral body who validates this. This methodology is constantly being adapted to be able to optimise it because of the industry evolution. Two major impacts; sourcing of industries and incentive for the industry to optimise their processes. For now, only France and South Korea are applying these criteria. If more countries did the same, the incentive would be more effective for the industry. He also explained that there is a special certificate for the products with the environmental proof.

• Tom Rommens (Project Coordinator, VITO) (joining in-person)

Tom presented the conclusions of a recent EU project where VITO is a partner, CIRCUSOL:

- 1. We will run into a waste problem within a couple of years because of the success of installation of solar panels in Europe. What are we going to do?
- 2. Problem of losing materials we are vulnerable in Europe.





- 3. Ecodesign could be part of the solution, but there are already other solutions; new types of encapsulation techniques, reuse/repair in a better way etc..
- 4. Reuse need for standards for the testing because there are some routes for external countries, which ends in a loss of materials if not recycled.

He also talked about another project, **Re/Sourced**, which is more focused on the point of view of the end-users and their willingness to install green panels. In this project, they worked on circular procurement for PV panels, defining a good criterion to avoid all manufacturers to say their panels are green. They saw there is still little awareness in this regard. What exactly is a circular panel? The aim of the project was to install a sustainable microgrid to demonstrate what an energy community in Europe could look like in the future. They also did an analysis on the types of labels that could be applied and which criterion to implement.

His key message was: green public procurement is more than carbon footprint, we also need to ask for a good service, for quality, clarity about the supply chain, labour conditions etc.. We should not only come up with the criterion of carbon footprint, but also on service, repairability, dismantling service, routes for recycling etc.. All these factors are equally important to build a circular system.

Q&A Panel 3:

- 1. Could the fact of having a product label help the carbon footprint?
 - (Lucas) Yes, it would help to harmonise the method all over Europe.
- 2. How many customers would be interested?
 - (Tom) Interest is low. Willingness to pay to have a green product is usually low. Green is "a nice to have", but people are also interested in the ROI.
 - (Lucas) I would say they are interested, until they see the price.
- 3. What about the impact on repairing/reusing?
 - (Tom) Does it make sense to repair? We did a study with the EIA different scenarios compared (replace partly, refurbishment when old, or when new, etc.) Results: from an environmental perspective, the impact is lower when used for the whole technical lifetime. Repairing before changing for efficiency performance. Nevertheless, from a financial perspective, repair and reuse only makes sense for early loss panels.

Closing words (Gaetan): Gaetan highlighted that after years of discussions around this topic with little impact achieved, he believes there is progress seeing that companies are starting to own the concept.

Recording of the event is available <u>here.</u>

Agenda of the event is included as <u>Annex 1</u> and some photos from the event in <u>Annex 2</u>.





3. Organisation and roles

The event was organised by a small team composed from representatives of EUREC, InnoEnergy, Becquerel Institute, Photowatt, WIP and the European Solar Manufacturing Council (ESMC). Organisation activities were divided among the organisations accordingly:

PARTNER	ACTIVITIES RELATED TO
EUREC	Coordination, communication & dissemination and technical responsibility (incl. venue booking)
InnoEnergy	Research and contacting of panellists and panel moderation
Becquerel Institute	Preparing the event agenda and objectives, researching and contacting panellists and event/panel moderation
Photowatt	Research of panellists (with a focus on France)
ESMC	Support in the preparation of the agenda and objectives, research and contacting of panellists
WIP	Communication & dissemination of the event

Collaboration with the European Solar Manufacturing Council (ESMC) turned to be very effective and mutually beneficial as the ecolabel event was organised back-to-back with the Governing Board meeting of the ESMC. This allowed greater visibility and consequent participation from the major PV manufacturing stakeholders.

(NB: PV Impact partners Becquerel Institute and Photowatt are founding members of the ESMC.)

Examples of promotional efforts

EUREC and WIP worked in tandem to widely promote the event, attract speakers and participants:

- The event and its updates were announced via partners' websites, newsletter and social media accounts regularly for 1 month.
- Dedicated website section was created on the <u>PV Impact website</u> under PV Industry in Europe>Ecolabels for PV Panels.
- The event was also published on events platforms such as the EU Agenda.
- PV Impact Newsletter including the event was distributed to the PV Impact newsletter subscribers.





- Mailchimp invitation for subscribers (weekly reminders). "1 week to go" reminder here
- Twitter and LinkedIn campaigns under the hashtag #PVIMPACT_EU. <u>Twitter examples can</u> <u>be found in Annex 3</u>.





4. Conclusions

The overall outcome of the event and its organisation is positive:

- The event hosted 128 participants, which is a satisfactory number considering the narrow topic of the event. Majority of the speakers and moderators (i.e. 9/12) were present inperson, which is an outstanding achievement considering the still very cautious return to business-as-usual organisation of physical events post-COVID. The preparation of the hybrid event was a challenge the organisation team coped with well and no technical issues were encountered during the event.
- The decision to organise the event back-to-back with the General Assembly of the European Solar Manufacturing Council (ESMC) created mutual benefits and the event gained additional attention and visibility from the PV manufacturing stakeholders.
- The well-composed agenda supported by speakers and moderators from the European Commission, research, industry, and national representatives facilitated high quality of exchanges during and after the event and served to disseminate the activities of PV Impact project.
- The participation of experts from different areas of PV value chain encouraged a wide variety of questions from the audience, allowing a rich interaction between speakers and participants.

EUREC is grateful to other PV Impact project partners and the ESMC for the support in the organisation and dissemination of the Ecolabels for PV panels: the missing link for EU-based, green PV manufacturing? event.





5. Annex 1 – Agenda of the event (online <u>here</u>)



While the solar photovoltaic market is booming globally, the question of sustainability has never been more important than now. PV paves the way for drastically reducing carbon emissions in Europe and globally, accelerating the energy transition and significantly contributing to job creation and economic value. However, the question of how to improve the sustainability of PV products remains at the core of the political agenda, as the energy sector must be made cleaner, greener and more sustainable. One key policy instrument to increase the sustainability of PV products is the concept of ecodesign and its derivatives. This event intends to provide an overview of the current situation and highlight the positive impacts on the market and industry that such policies could trigger.

AGENDA

17.10 - 17.20	WRAP-UP & CLOSING REMARKS Gaëtan Masson (Founder and Managing Director, Becquerel Institute)
16.40 - 17.10	PANEL 3: CARBON FOOTPRINT & GREEN PROCUREMENT The second session concerns carbon footprint requirements and discusses past lessons learnt and future possibilities for the European industry. Green public procurement is also at the core of the debate with the option to create some public markets for virtuous products. Moderator: Nieves Espinosa (Scientific Officer, Joint Research Centre, European Commission) • Lucas Weiss (CEO, Voltec) • Pierre Rale (Photovoltaics Engineer, ADEME) • Tom Rommens (Project Coordinator, VITO)
	BREAK - 20 MINUTES
15.50 - 16.20	PANEL 2: INDUSTRY VIEW The third session highlights the view of the PV industry in Europe and whether the measures and concepts discussed before could support the ongoing rebirth of the manufacturing industry in Europe. Several industry players will present their views and experiences and provide guidelines on how to best benefit from such policies. Moderator: Javier Sanz (Thematic Leader, Renewable energy, InnoEnergy) • Carsten Rohr (VP Business Development, NorSun AS) • Vincent Bes (CEO, Photowatt) • Antoine Chalaux (Commercial Director, ROSI Solar)
15.20 - 15.50	PANEL 1: ECODESIGN & ECOLABEL The first panel focuses on the current status of ecodesign and ecolabel options in Europe, the major differences between these concepts, some international experiences and the views of policy actors in Europe. Moderator: Gaëtan Masson (Founder and Managing Director, Becquerel Institute) • Debbie Graham-Clifford (Senior Manager, Global Electronics Council) • Josco Kester (Researcher, TNO) • Davide Polverini (Policy Officer, DG GROW, European Commission)
15.05 - 15.20	KEYNOTE SPEECH Davide Polverini (Policy Officer, DG GROW, European Commission)
15.00 - 15.05	INTRODUCTION Gaëtan Masson (Founder and Managing Director, Becquerel Institute)



PV IMPACT is trying out a variety of approaches to stimulate PV research, development and innovation initiatives in Europe. These include organising matchmaking events for companies so they can find partners with whom to work on future projects under EU and/or national funding schemes; targeting and supporting two specific industrial companies: ENEL Green Power and Photowatt; and monitoring progress in PV through collecting data on public spending in the EU, on private spending, on the kinds of projects being funded and on the overall performance of PV technology, including forecasting of future spending.

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6. Annex 2 – Photos from the event





ORGANISATION AND OUTCOMES OF ECOLABEL EVENT









7. Annex 3 – Speaker cards and Twitter examples



ORGANISATION AND OUTCOMES OF ECOLABEL EVENT





ORGANISATION AND OUTCOMES OF ECOLABEL EVENT



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EUREC @EUREC_Info · Mar 9

Hybrid Event on Ecolabels for #PV panels: the missing link for EU-based, green PV manufacturing? on 30 March: how to improve the #sustainability of PV products in order to develop a cleaner and greener #energy sector. Info bit.ly/364JGda

#PVIMPACT_EU #renewableenergy



WIP Renewable Energies and 9 others







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EUREC @EUREC_Info · Mar 15

Our **#PVIMPACT_EU** event on **#ecodesign** and **#ecolabeling** features a number of experts from the **#PV** industry.

For our 3rd panel highlighting the view from industry experts, .@Photowatt CEO Vincent Bès will share his perspectives.

Infofbit.ly/364JGda #renewableenergy



Photowatt and WIP Renewable Energies





EUREC @EUREC_Info · Mar 16

The 1st panel in the **#PVIMPACT_EU** event focuses on the status of **#ecodesign & #ecolabel** options in Europe

Experts such as Debbie Graham-Clifford (@GEC_org) will help to review some international experiences & the views of policy actors in Europe.

👉 bit.ly/364JGda













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WIP

WIP Renewable Energies @WIPRenewables · Mar 30 ···· Can #Ecodesign and #ecolabelling measures support the rebirth of the EU #PV manufacturing industry? Experts from @NorSun, @Photowatt and @RosiSolar present their views and provide guidelines on how to best benefit from such policies. youtube.com/watch?v=gWFFfH... #PVIMPACT_EU





EUREC @EUREC_Info · Mar 30

The third panel of the **#PVIMPACT_EU** event concerns the **#carbonfootprint** requirements and discusses lessons learnt and future possibilities for the EU industry. **#EUecolabel #PV**







8. Contacts

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