

POLIS building Arch. Galgano Città di Lugano

BIPV Facades

"BIPV beyond Task 15" - Hosted by IEA PVPS Task 15 -

Moderation by Johannes Eisenlohr, Fraunhofer ISE & Francesco Frontini, SUPSI

23.11.2021

Technology Collaboration Programme

Organization of the event

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We are using Zoom

- Please mute your microphone
- Please use the chat for questions
- We will pick up short, direct questions after each talk
- We will have more time for discussions after session 1 and after session 2
- Some of the slides will be shared <u>https://oc.ise.fraunhofer.de/index.php/s/hCP3RqrTiknCmiM</u> Password: BIPV15

(folder still empty, will be filled after the event)

What is IEA PVPS Task 15?



IEA PVPS Task 15 – Enabling Framework for the Development of BIPV

Objective:

- Create an enabling framework to accelerate the penetration of BIPV products in the global market of renewables.
- Resulting in an equal playing field for BIPV products, BAPV products and regular building envelope components.
- Respecting multifunctional aspects, mandatory issues, regulatory issues, aesthetic issues, reliability and financial issues.





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Who is Task 15?



- Task Managers: Johannes Eisenlohr, Francesco Frontini
- Subtask leaders: Michiel van Noord, Gabriele Eder, Costa Kapsis, Nuria Martin, Rebecca Yang, Helen Rose Wilson
- Experts from 18 countries, from research, architecture, industry etc.



 Contacts: https://iea-pvps.org/research-tasks/enabling-framework-for-the-development-ofbipv/contacts t15/

Overview Task 15 - Subtasks



- Subtask A: Technical Innovation System (TIS) Analysis for BIPV (van Noord)
 - Identifying measures to increase implementation of BIPV, clear action and business plan, etc.
- Subtask B: Cross-sectional analysis: learning from existing BIPV installations (Eder)
 - Analysis and comparison of the multi-functionality of BIPV (energy relevant, economic, environmental, visual impact)
- Subtask C: BIPV Guidelines (Kapsis, Martin)
 - Guidebook and technical presentation that provide a complete pathway from BIPV design to installation, maintenance and safety
- Subtask D: Digitalization for BIPV (Yang)
 - · Using the opportunities of digitalization to make BIPV more easily accessible, more reliable and cheaper
- Subtask E: Pre-normative international research on BIPV characterization methods (Wilson)
 - Optimized characterization methods, facilitate local/national building component approval of BIPV. contribute to international alignment of normative requirements on BIPV products and systems

Reports of Task 15









Multifunctional







BIPV Design and Characterisation of BIPV Performance Modelling: Tools and Methods

Analysis of requirements specifications regulation of BIPV

Coloured BIPV Market Research and

https://ieapvps.org/researchtasks/enablingframework-for-thedevelopment-of-bipv/



of User Needs for BIPV

and its Functions

ional Projects



3IPV R&D facilities An

second version

nternational mapping,



of "BIPV"

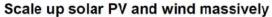
Business Models, Opportunities and Iss for BIPV

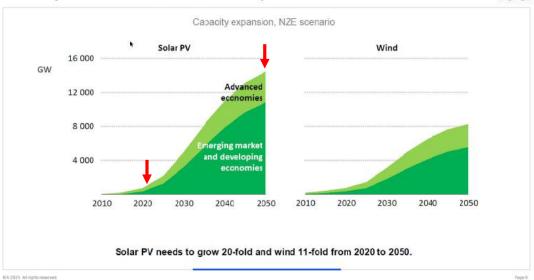


and BIPV RD Fecilities. An Inter Mapping

lea

- Presentation by Paolo Frankl, Head of Renewables, IEA, **Paris**
- Social acceptance one of the key issues.

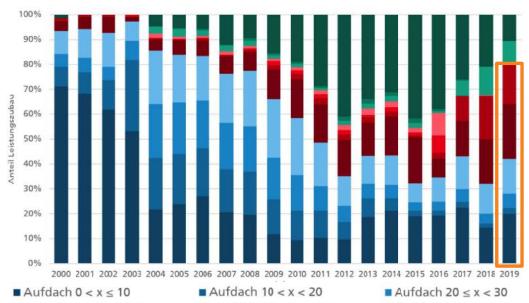




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70% of PV installed at building level (Germany)





Additionally installed power 2000 to 2019 according to size and application.

80 % on buildings

Calculation according to "EEG-Anlagenstammdaten"

■ Aufdach 30 ≤ x < 100

■ Aufdach 750 $< x \le 1000$

■ FFA 750 < x ≤ 1000</p>

■ Aufdach 100 ≤ x < 500

Aufdach 1000 < x

■ FFA 1000 < x

■ Aufdach 500 ≤ x ≤ 750

FFA 0 < x ≤ 750</p>

http://publica.fraunhofer.de/eprints/urn nbn de 0011-n-6339972.pdf

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"BIPV beyond Task 15"



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"BIPV beyond Task 15" - Session 1 – 13:15-15:00



- <u>Miguel Herrero, Solar Power Europe</u>

 EU policy opportunities for BIPV in the Fit for 55 Package, Next Generation EU, and the New European Bauhaus
- <u>Patrick Hofer Noser, 3S Solar Plus</u>
 BIPV as an opportunity of the EU Manufacturer and the EU energy transition
- <u>Gabi Friesen, SUPSI</u>
 IEA-PVPS Task 13: Performance, Operation and Reliability of Photovoltaic Systems
- <u>Harald Drück, University Stuttgart</u> *IEA-SHC Task 66: Solar Energy Buildings, Integrated solar energy supply concepts for climate-neutral buildings and communities for the "City of the Future"*

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• Q & A	15min	
Coffee Break	15 min	

PVF

"BIPV beyond Task 15" - Session 2 - 15:00-16:30



- Pierluigi Bonomo, SUPSI
 Research for BIPV in Switzerland. A collaboration model between applied research and industry
- Chris Klinga / Stan Pipkin, Architectural Solar Association Connecting the architectural and solar Industry
- Karl Viriden, Ecorenova AG Investment in PV yield and/or aesthetics?
- Rolf Frischknecht, Treeze IEA-PVPS Task 12: PV Sustainability Activities

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• Q & A 15min

END of the conference/meeting

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Thank you



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