

# AEGR project Workshop Project introduction

Shaping sustainable futures event  
06.03.2025, Brussels



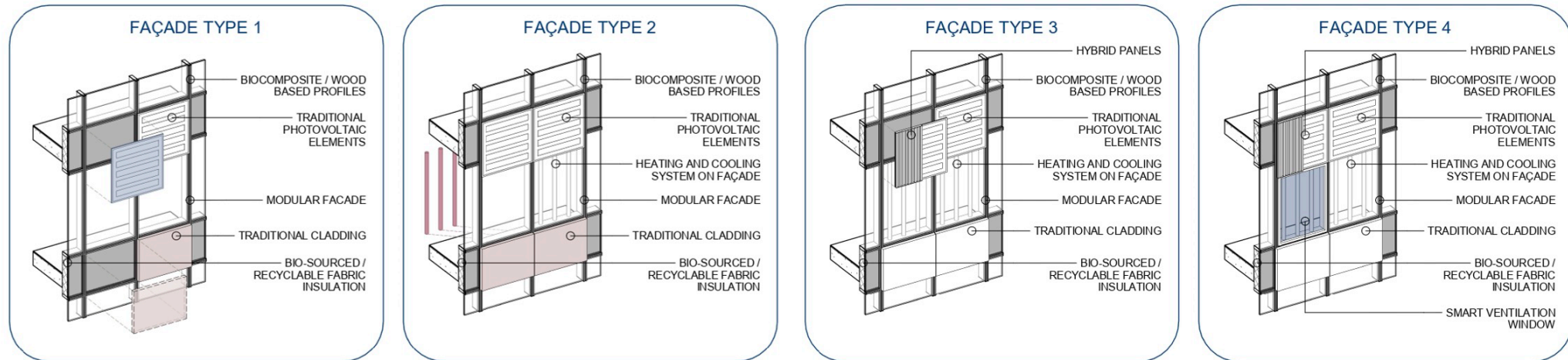
Follow aegir  
on LinkedIn



Funded by  
the European Union

[aegirproject.eu](https://aegirproject.eu)

## Develop modular, renewable, and industrialized building envelopes for energy renovation



1. Design multifunctional (passive & active) scalable building energy renovation envelope packages to answer to a different range of needs.
2. Develop and implement an ecosystem of digital services in a common data environment.
3. Demonstrate AEGIR technical solution through its implementation and monitoring in four different building typologies (residential, office and educational) located in different climatic zones.

# Technologies from AEGIR Project

## Construction Components

1. Scalable prefabricated renovation packages approach
2. Bio-composite profile system for prefabricated modules of envelope
3. Timber profile system for prefabricated modules of envelope
4. Bio-based thermal insulation system
5. Acoustic insulation system based on recycled fabric materials
6. Ventilation ducts integration in envelope solutions for retrofitting
7. Smart Windows

## Energetic components

8. Flexible PV system
9. PVT panels
10. Second life batteries

## Digital eco-system

11. Common Data Environment (CDE)- digital framework.
12. Digital services for a cost-effective renovation design
13. Façade modules configuration service. Façade Cloud Configurator
14. On-site building data capture system. PointPix Reality capture
15. Automated generation of Digital Twin. Ag2DT
16. Augmented reality for execution validation
17. Energy metamodels and artificial intelligence for building O&M



The grid contains 17 numbered images illustrating various technologies from the AEGIR project:

- 1. Four cross-sectional diagrams of different facade types (FAÇADE TYPE 1, 2, 3, 4) showing their internal structure and components like profiles, photovoltaic elements, and insulation.
- 2. A close-up photograph of a facade profile.
- 3. A photograph of a building facade with a renovation package installed.
- 4. A photograph of a timber profile system.
- 5. A photograph of a bio-based thermal insulation system.
- 6. A photograph of an acoustic insulation system.
- 7. A photograph of a smart window.
- 8. A photograph of a flexible PV system.
- 9. A photograph of PVT panels.
- 10. A photograph of second life batteries.
- 11. A diagram illustrating a Common Data Environment (CDE) framework.
- 12. A screenshot of a digital service interface for renovation design.
- 13. A screenshot of a facade modules configuration service interface.
- 14. A photograph of an on-site building data capture system.
- 15. A photograph of an automated generation of Digital Twin.
- 16. A photograph of an augmented reality headset.
- 17. A photograph of energy metamodels and artificial intelligence for building O&M.



# Thank you!

---

[Julen.astudillo@tecnalia.com](mailto:Julen.astudillo@tecnalia.com)

Follow aegir  
on LinkedIn



Funded by  
the European Union

[aegirproject.eu](http://aegirproject.eu)