

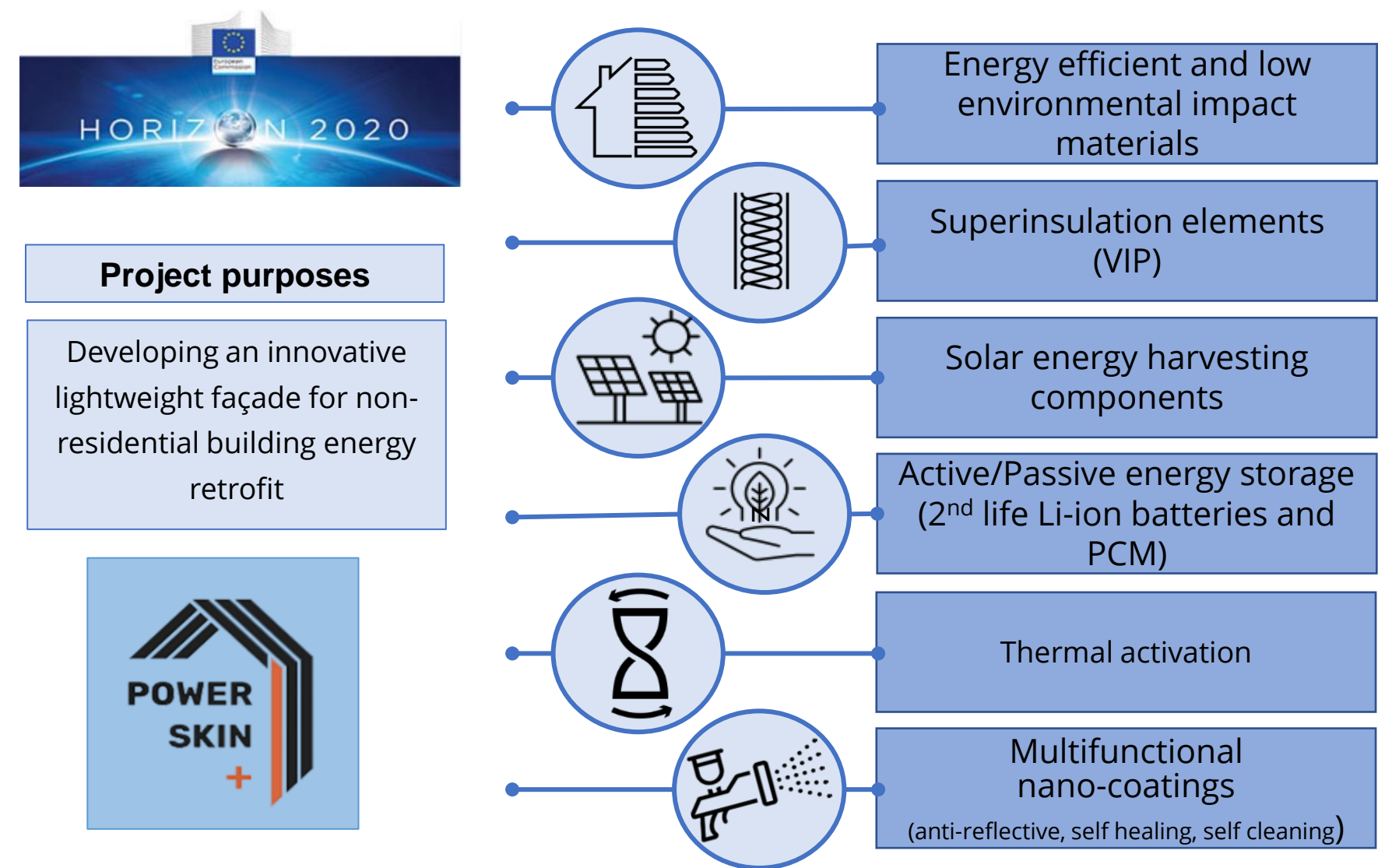
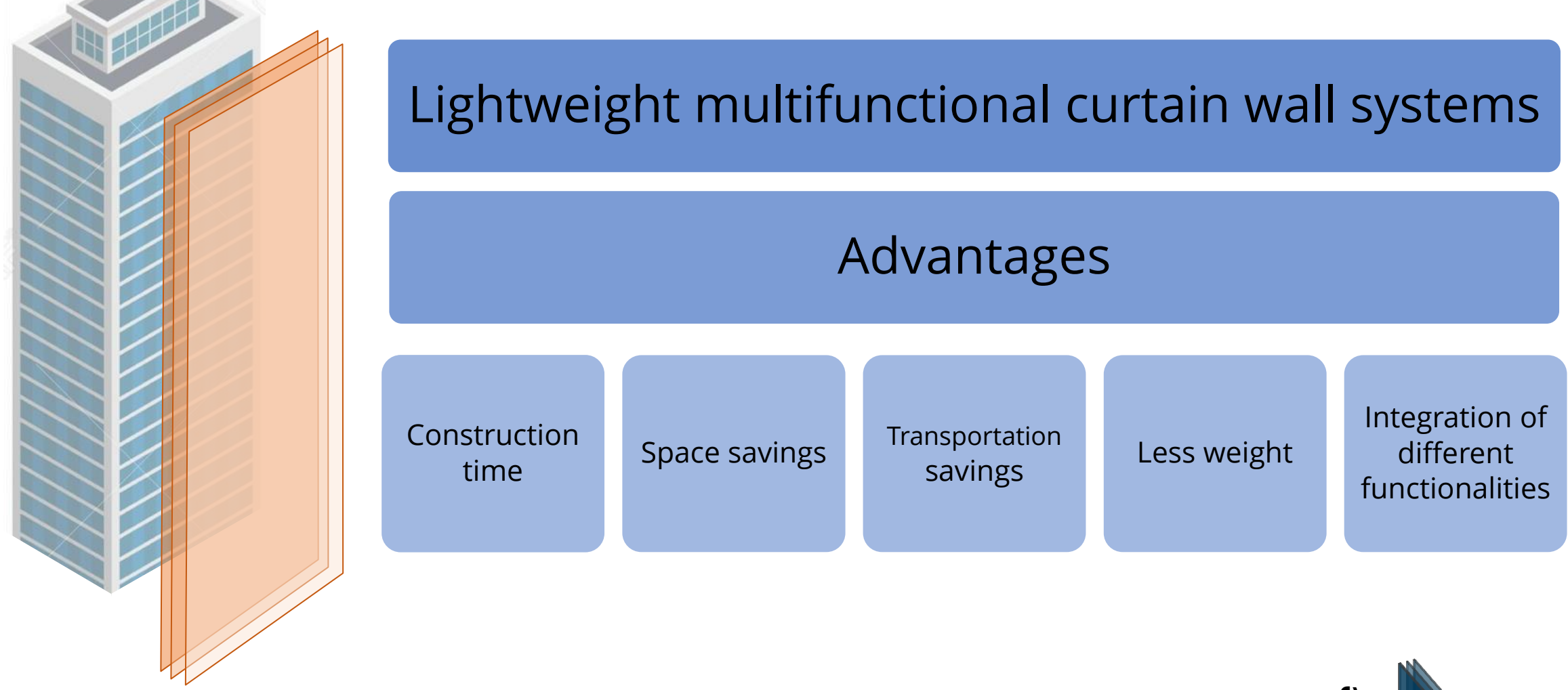
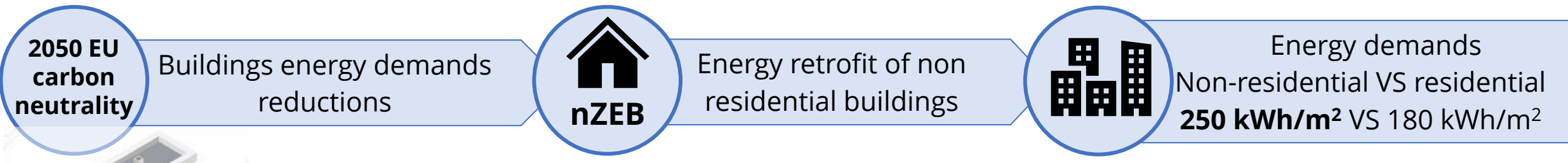
The Powerskin+ project: Integrating Vacuum Insulation Panels in multifunctional façade systems



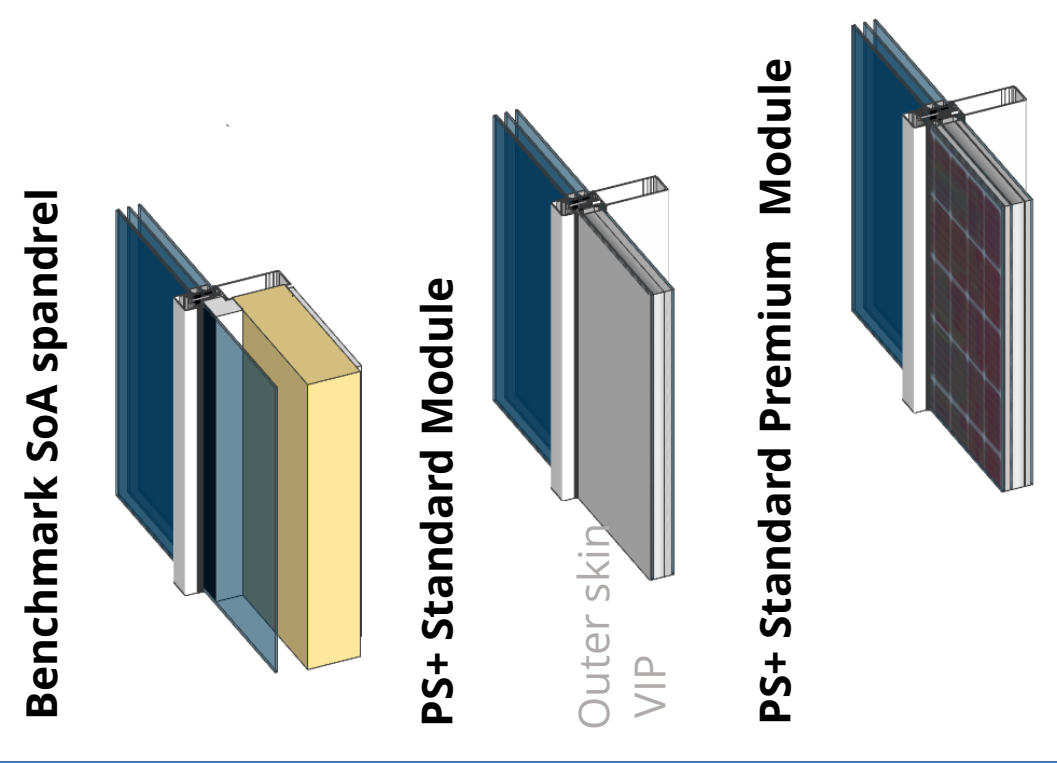
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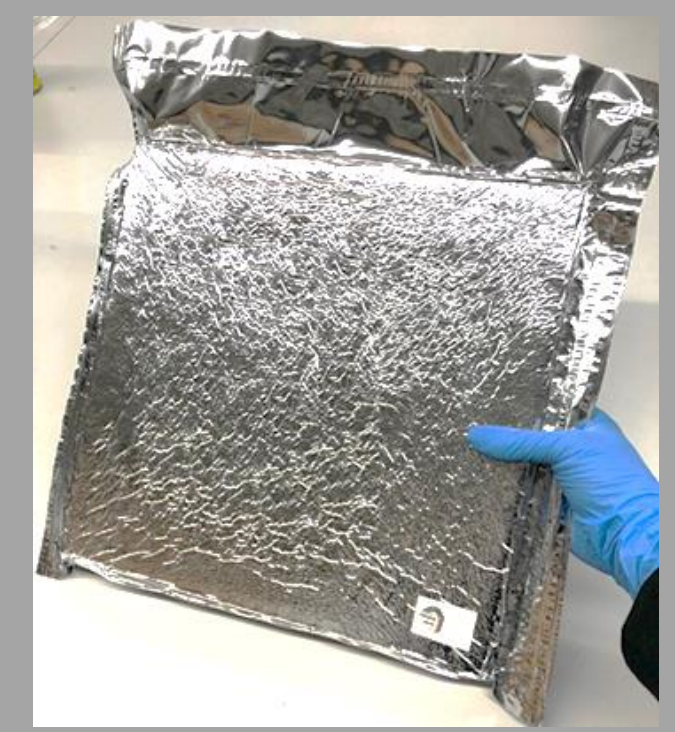
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Opaque module Target values:
 U-value $\leq 0.098 \text{ W/m}^2\text{K}$
 Surface mass $\leq 5 \text{ kg/m}^2$
 * For PS+ standard module



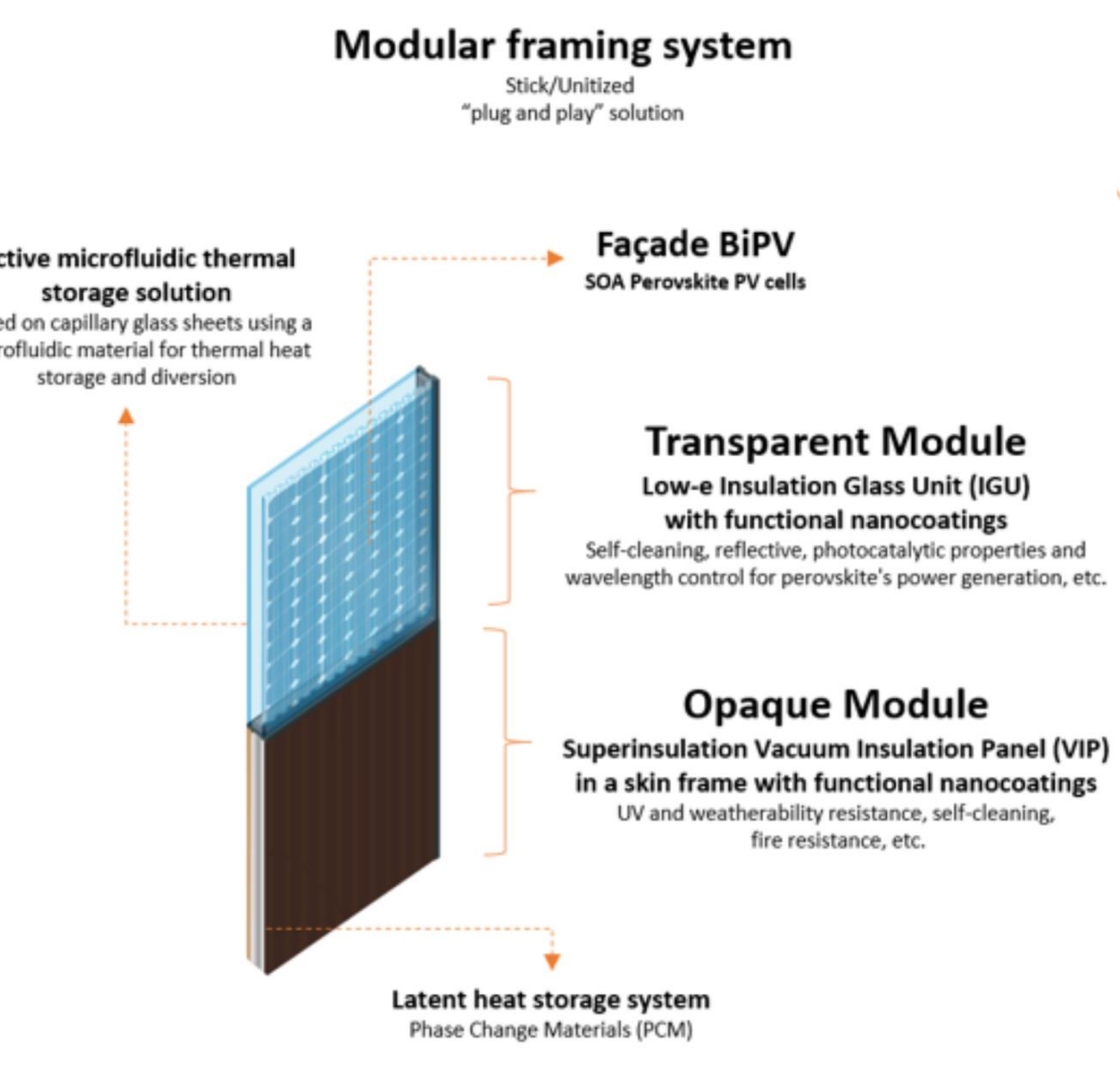
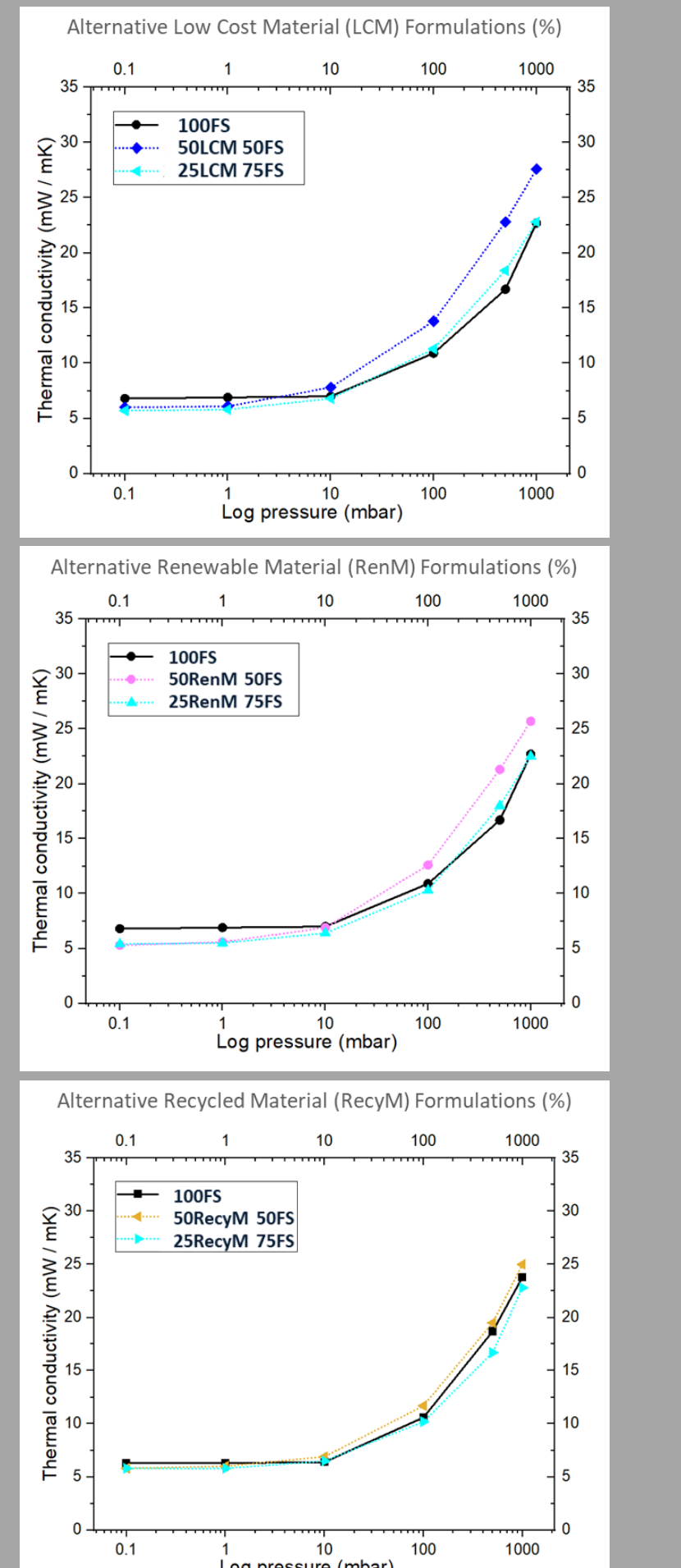
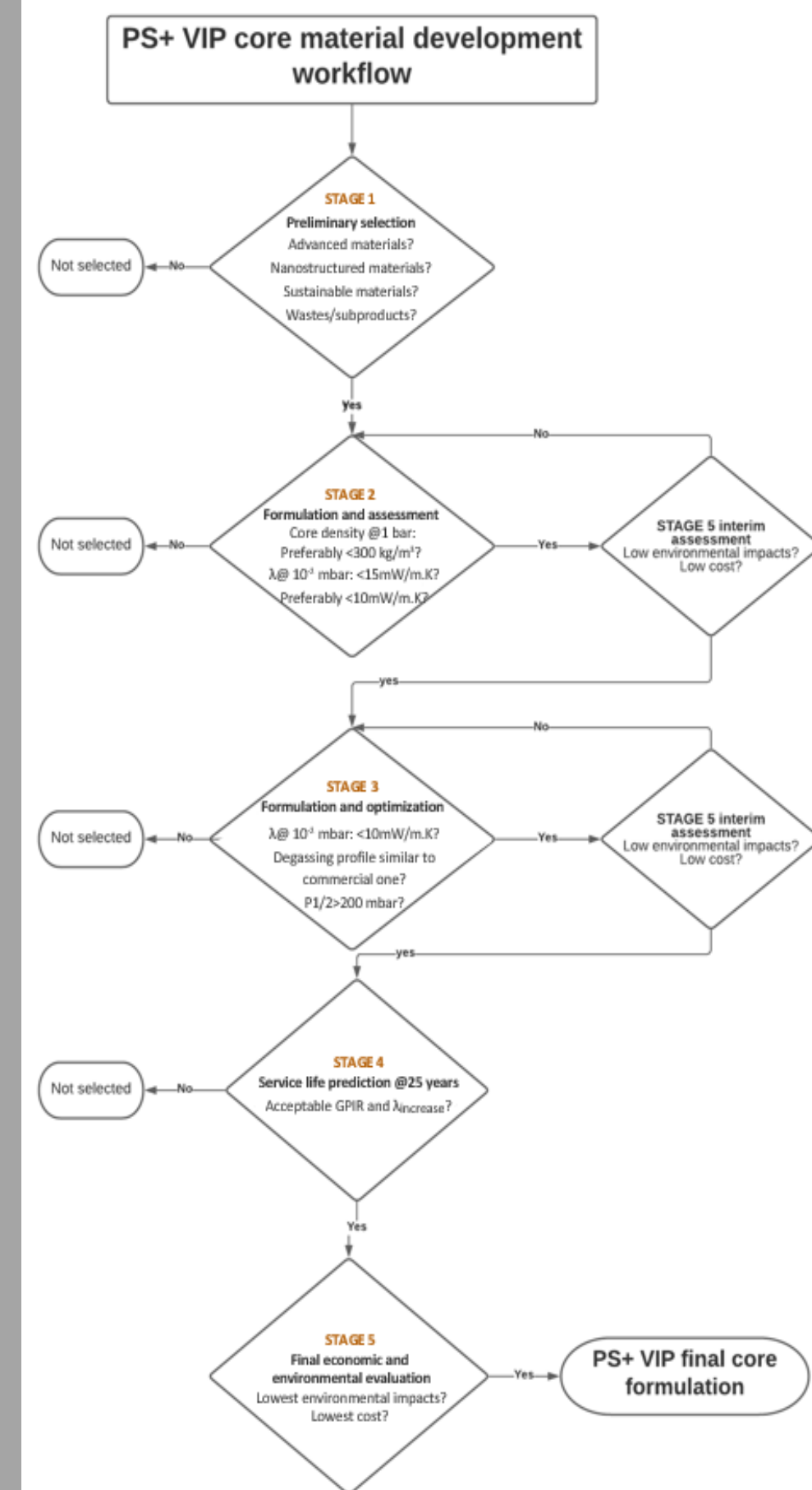
Advanced and sustainable materials alternatives for novel VIP



PS+ VIP sample
 Panels being developed and tested:
 Lab scale: 300x300 mm
 Real scale: 600x600 mm

Thermal conductivity versus pressure tests* of PS+ VIP core formulations under development (STAGE 3)

PS+ VIP development methodological approach



Preliminary simulations at different scale to assess the performance of different façade configurations and accelerate the module development was carried out

Create a set of different façade module prototypes to be tested in laboratory environment and in real conditions

Assess a set of different pilot site demonstrator in 3 real-size non-residential buildings to test the facade solution in different climate conditions

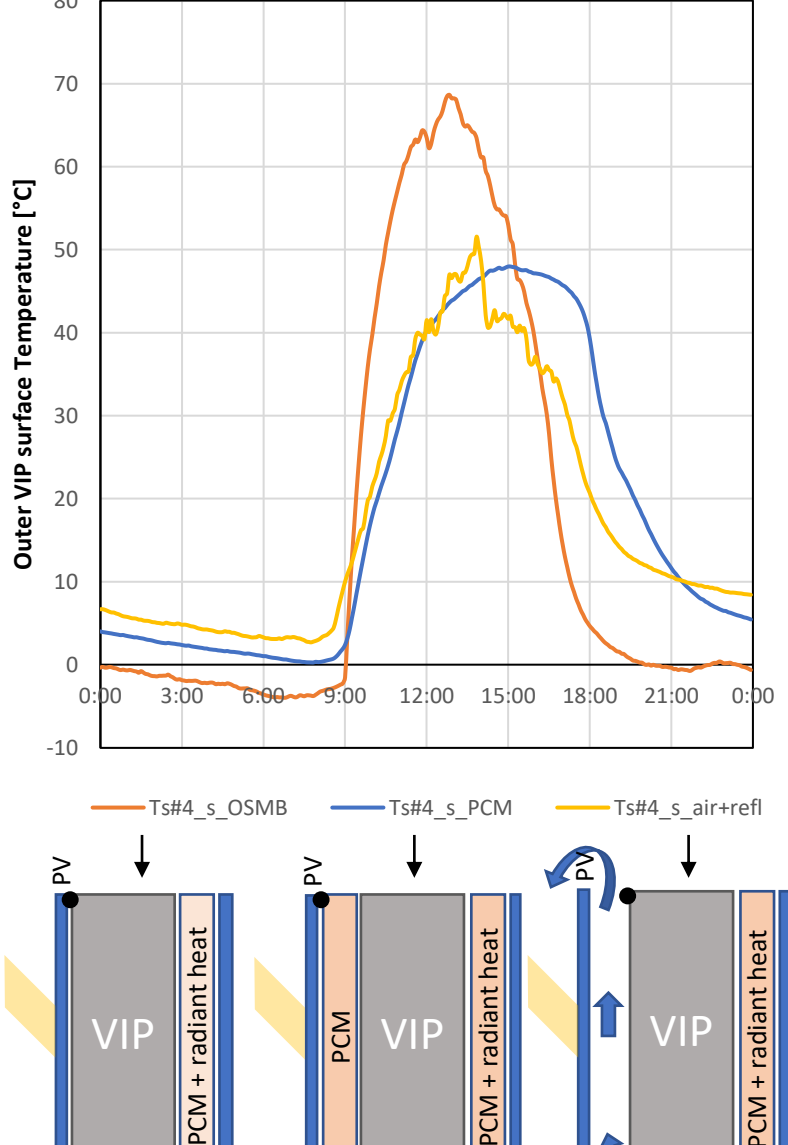
IPN Demo Building (Portugal) Flachglas Demo Building (Germany) CZECH TECHNICAL UNIVERSITY Demo Building (Czech Republic)



First small scale Mock-up installation in Politecnico di Torino (ITALY)



Assessing heat stress risk in VIP:



LIGHTWEIGHT PS+ STANDARD OPAQUE MODULE
 Size: 600x600mm



The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 869898.

