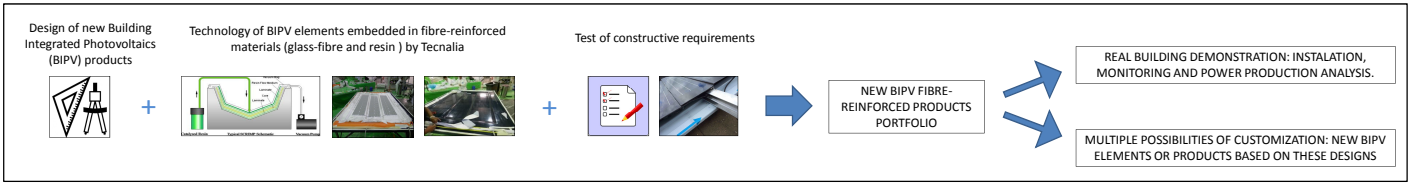


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## Scientific and Technical development of BIPV light-weighted composite-based product portfolio



## BIPV Products Portfolio

### 1. Canopy shading element

**Architectural functionality:** used as shading element for windows.

**Power:** 95 Wp.  
**Dimensions:** 1274 x 794 x 60 mm.  
**Weight:** 11,6 kg, frames inc.

**Demo system:** Residential building, Pikermi (Greece).

### 2. Balcony shading element

**Architectural functionality:** used as covering and shading element for balconies, with adaptation to curved shapes ability.

**Power:** 486 Wp.  
**Dimensions:** 1161 x R1345 x 60 mm.  
**Weight:** 59,0 kg, frames inc.

**Demo system:** Residential building, Pikermi (Greece).

### 3. Ventilated façade element

**Architectural functionality:** used as ventilated façade allowing thermal dissipation.

**Power:** 270 Wp.  
**Dimensions:** 1652 x 1209 x 3 mm.  
**Weight:** 10,5 kg, anchors inc.

**Demo system:** Residential building, Pikermi (Greece).

### 4. Skylight Element

**Architectural functionality:** Used as skylight closings, allowing the entrance of sunlight.

**Power:** 86 Wp.  
**Dimensions:** 1497 x 1207 x 50 mm.  
**Weight:** 12,3 kg, frames inc.

**Demo system:** Office building, Tecnalia, Zamudio (Spain).

### 5. Roofing shingle element

**Architectural functionality:** Used for roofing solutions with an aesthetical results similar than an slate roof.

**Power:** 144 Wp.  
**Dimensions:** 1395 x 905 x 3 mm.  
**Weight:** 7,1 kg, anchors inc.

**Demo system:** Residential building, Mons (Belgium).

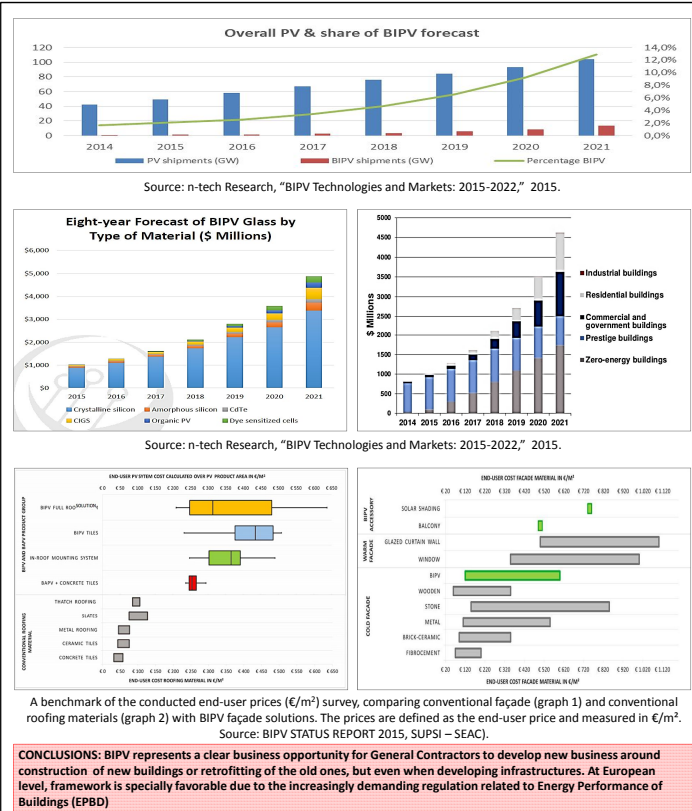
### 6. Aluminum tray

**Architectural functionality:** Used as ventilated façade and curtain wall applications.

**Power:** 76 Wp.  
**Dimensions:** 1637 x 355 x 3 mm.  
**Weight:** 1,8 kg, frames inc.

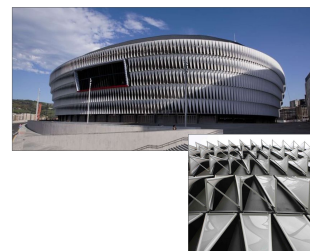
**Demo system:** Office building, Tecnalia, Zamudio (Spain).

## BIPV market expectative



## Acciona past and present projects with BIPV potential

### San Mamés Football stadium – Sept´2013



The new roof of the San Mames football stadium forms several layers of foil within an aluminium frame to create an inflated panel that retains its shape with compressed air ETFE cladding cushions to the stadium roof.

In the case of the San Mames stadium it was also important that the portion of the canopy to be as transparent as possible to ensure that the maximum levels of sunlight fall on the pitch during the winter months to maintain grass growth. Conversely, the outer section of the canopy covering the highest tiers of seating needed to minimize solar transmission to ensure user comfort during the summer months when heat gain from the sun is at its highest.

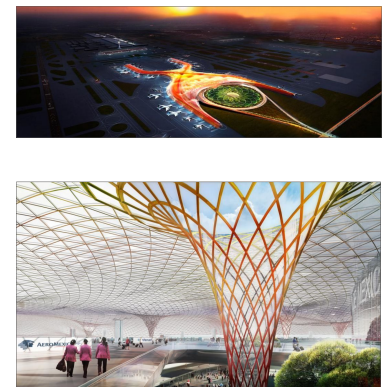
### Mexico City international Airport: Contract signed Feb´2017

ACCIONA will construct the terminal for the future airport with a floor area of 743,000 m2, distributed over four levels, which is expected to serve some 68 million passengers.

The building will be based on an X-shaped design created by the architects Norman Foster and Fernando Romero.

The terminal is housed under a continuous lightweight membrane, with an almost aerodynamic silhouette, which forms the walls and the roof, supported by 21 large funnel-shaped columns.

The modular mesh structure is extremely light in response to the requirements of the site and to minimize its environmental impact. Both the materials (primarily steel, aluminum and glass) and the design are intended to make the most of the natural light and to facilitate natural ventilation, reducing energy consumption. The building will also be self-sufficient in terms of power and water. The new terminal will include specific features compatible with LEED Platinum certification.



Coordinator:

Consortium members:



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