ISSOL

ACTIVE FACADES & ENVELOPES

PHOTOVOLTAICS FOR ARCHITECTURE

Delivering an active building skin that meets strict aesthetic requirements of Norwegian architects

Solenergidagen, OSLO – September 6th, 2018

1

«Which issue are we solving?»

BEAUTIFUL SOLAR SOLUTIONS

PREMIUM CLIENTELE | INCREASE OF ASSET VALUE

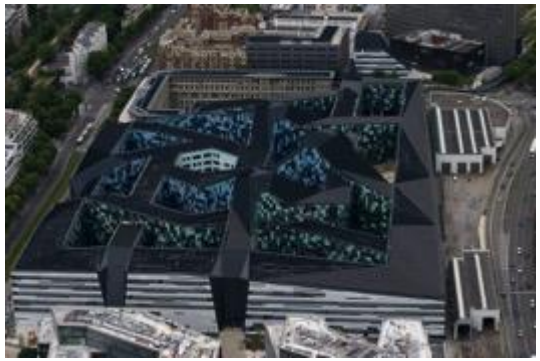
Worked from Oslo to Riyadh with most famous architects in the last 12 years

Tribunal de Grande Instance
Renzo Piano– Paris

La Seine Musicale – Shigeru Ban – Paris

Finance Tower – Jaspers Eyers - Liege

Besson – Switerzerland



Council of the European Union - P. Samyn – Brussels

Union Eiendomsutvikling - Oslo

Brussels Environment | Cepezed / Philippe SAMYN and PARTNERS Architects & Engineers © Van Laere

DICHORIC PHOTOVOLTAICS

La CREA 2016 - Rouen (France) **Jacques Ferrier** Architectures

® ISSOL Solar Terra
For heritage conservation

Union Eiendomsutvikling AS – OSLO (Norway) © Arch. Ingebjørg Lien, LOF Arkitekter as + Fusen.no

Cité Musicale de L'Île Seguin (Paris – 2016) ISSOL for TCE Solar and Bouygues Constructions - Architect : **Shigeru Ban**

2

«How do we solve it?»

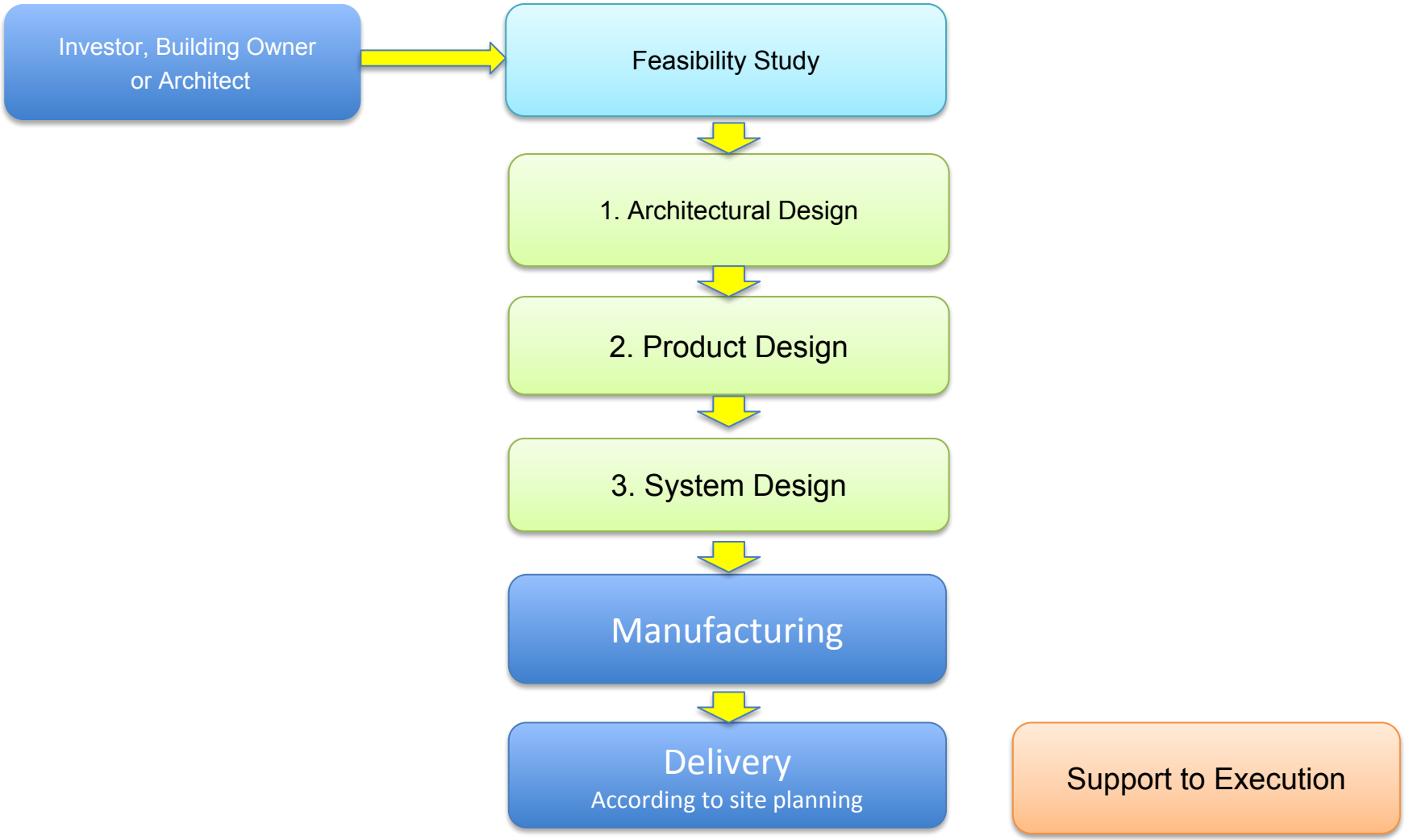
ISSOL

Engineering of the building envelopes

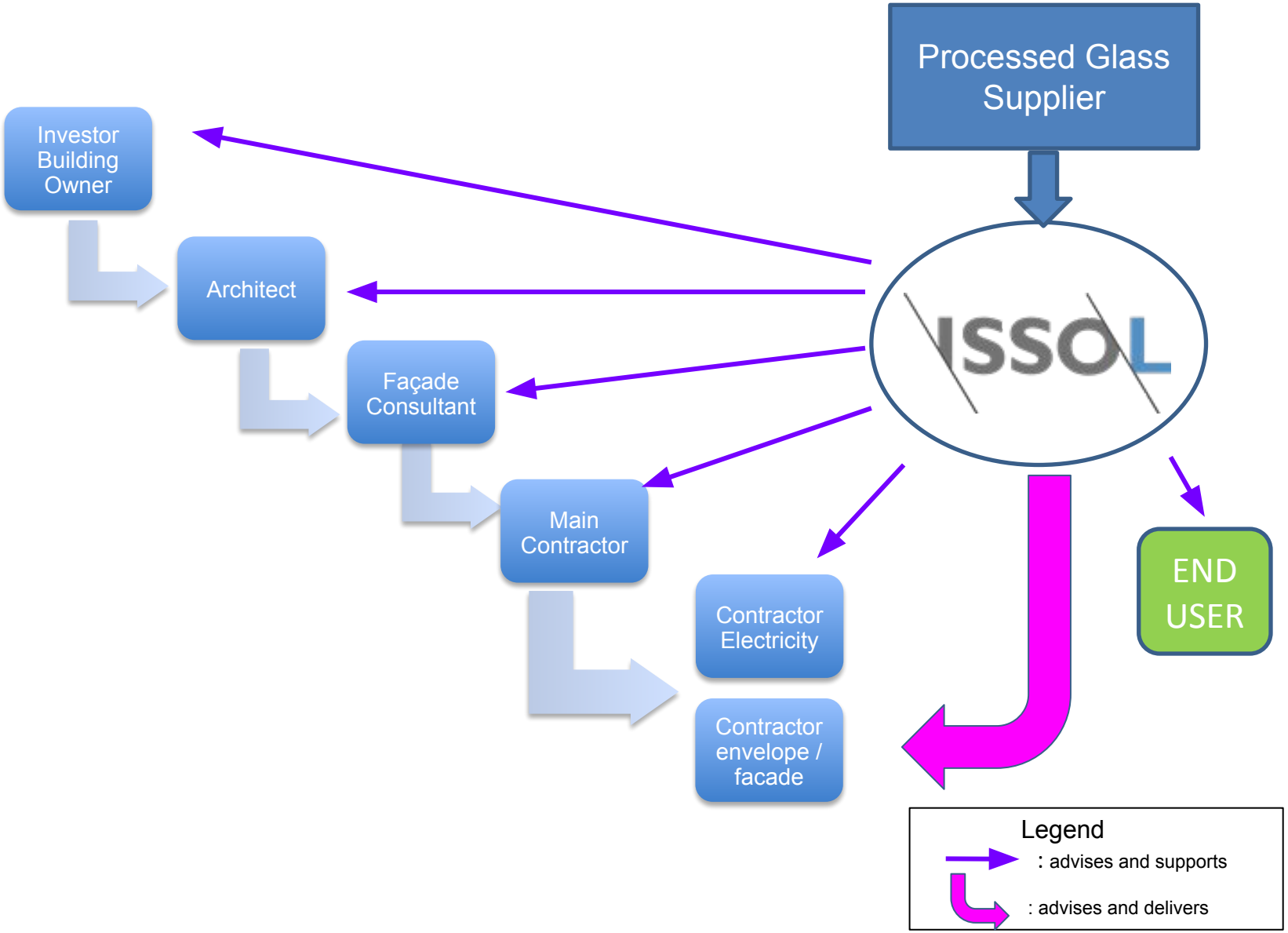
Manufacturing of active building components

42 workers - Capacity: 100.000 m^2/year

Project Workflow



Competence Centre



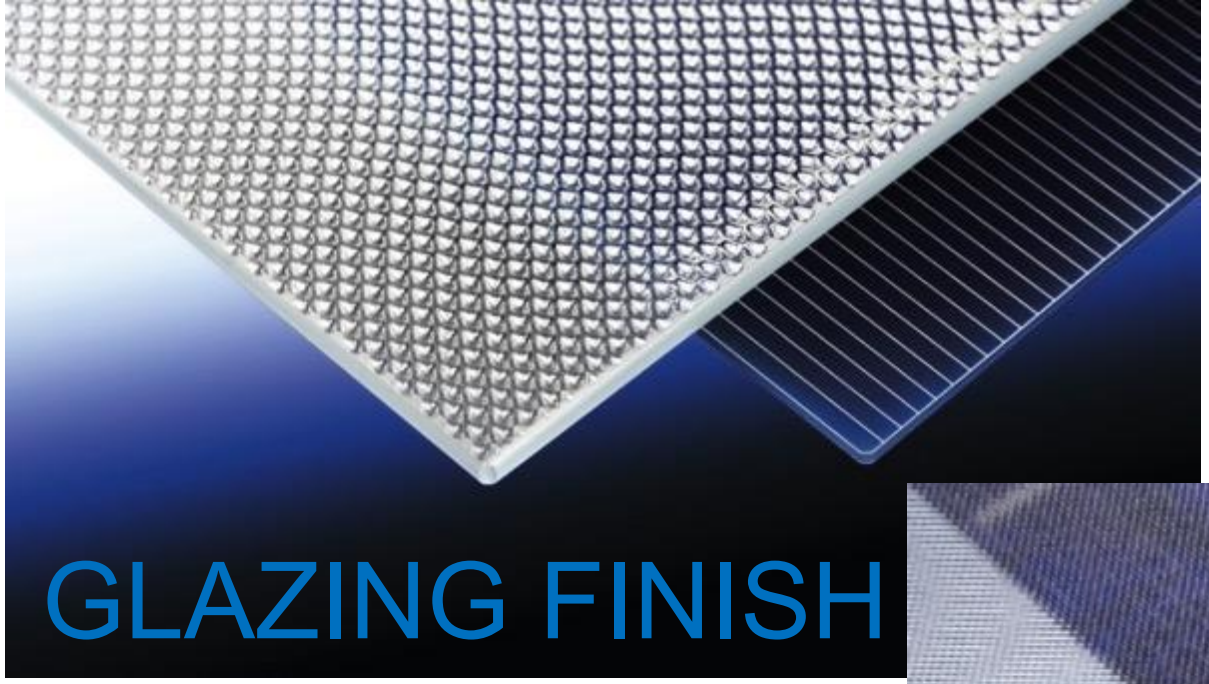
3

«Which solutions do we bring?»

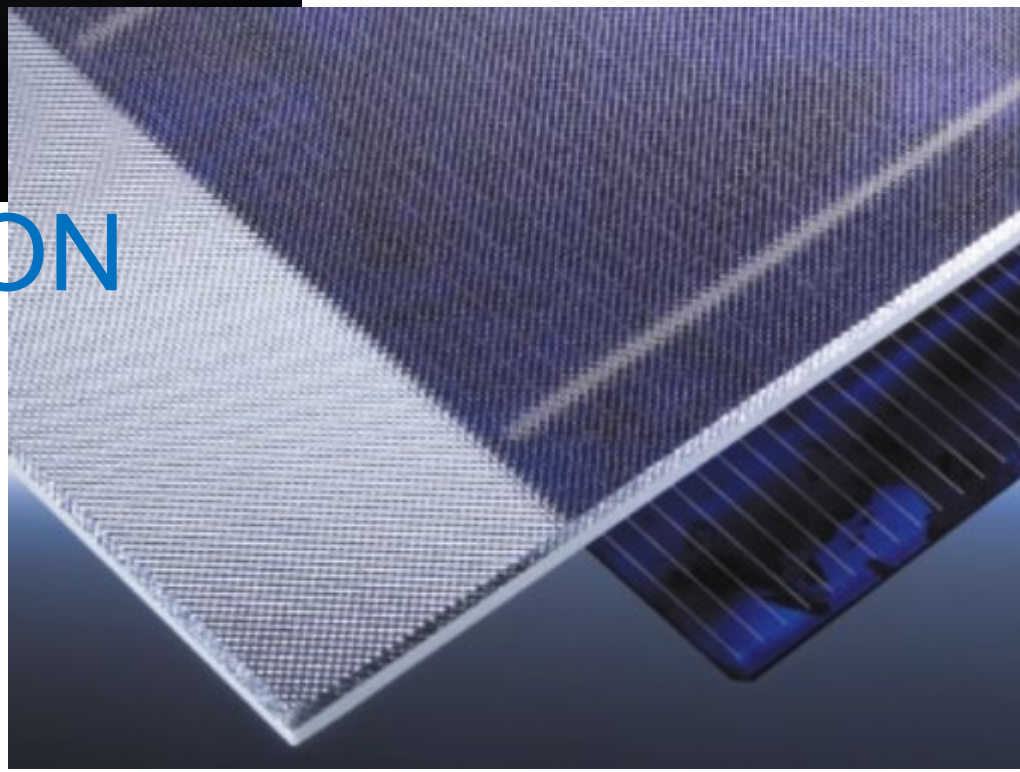
At ISSOL, we manufacture one single product:

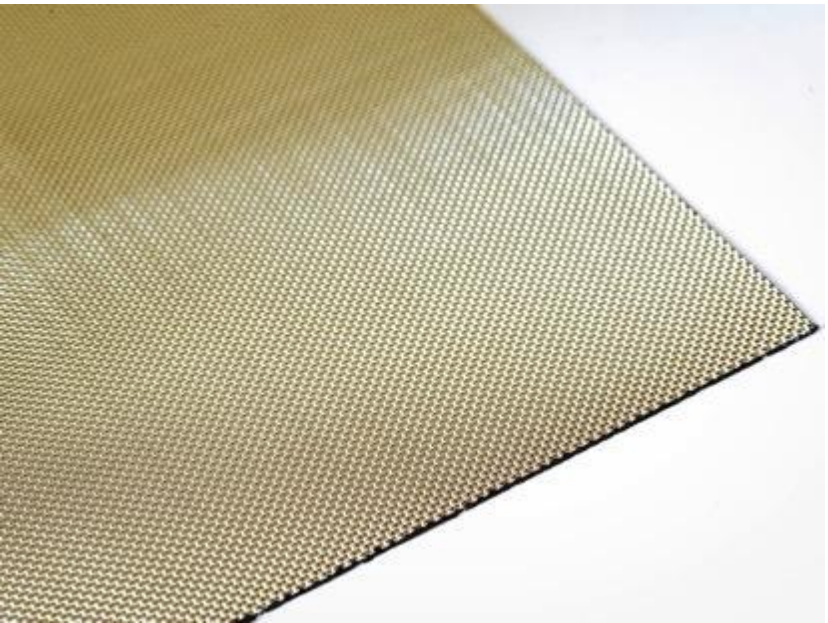
Laminated safety glass with solar cells inside

EPoG - Energy Positive Glazing – Smart Glass



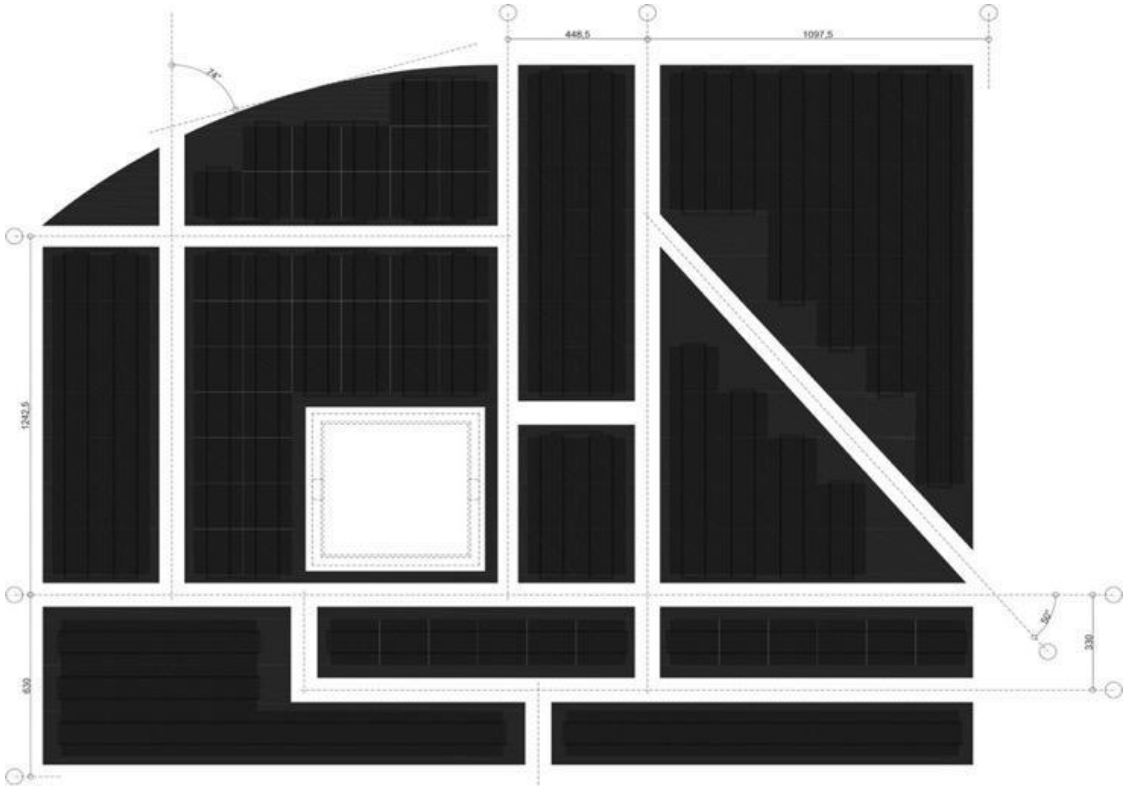
GLAZING FINISH & CUSTOMIZATION





(PV) Glass Transformation

- Shape
- Size
- Thickness
- Patterns
- Screen Printing
- Insulation
- Curvature
- Substrate

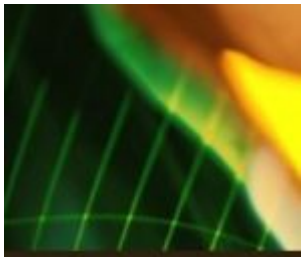


PV Technology

- For ISSOL, the PV technology is tool to serve the building and glass industries
- ISSOL is technology independent
- Today Silicone is the dominant technology. 95% of ISSOL's projects are made using mono crystalline solar cells >22% efficiency
- Organic and thin film technologies will reach maturity in 4 to 6 years
- Thin film is proposed on request to reach 100% transparency of PV Glazing

+22% eff. cells
Mono crystalline 6 inches

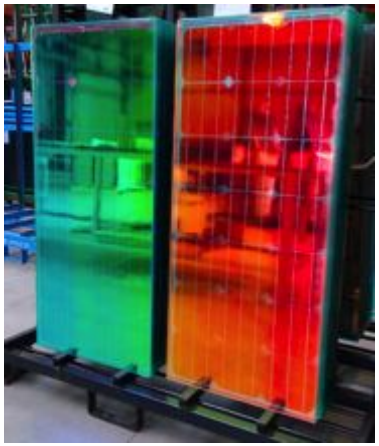
+12% eff. Thin film cell



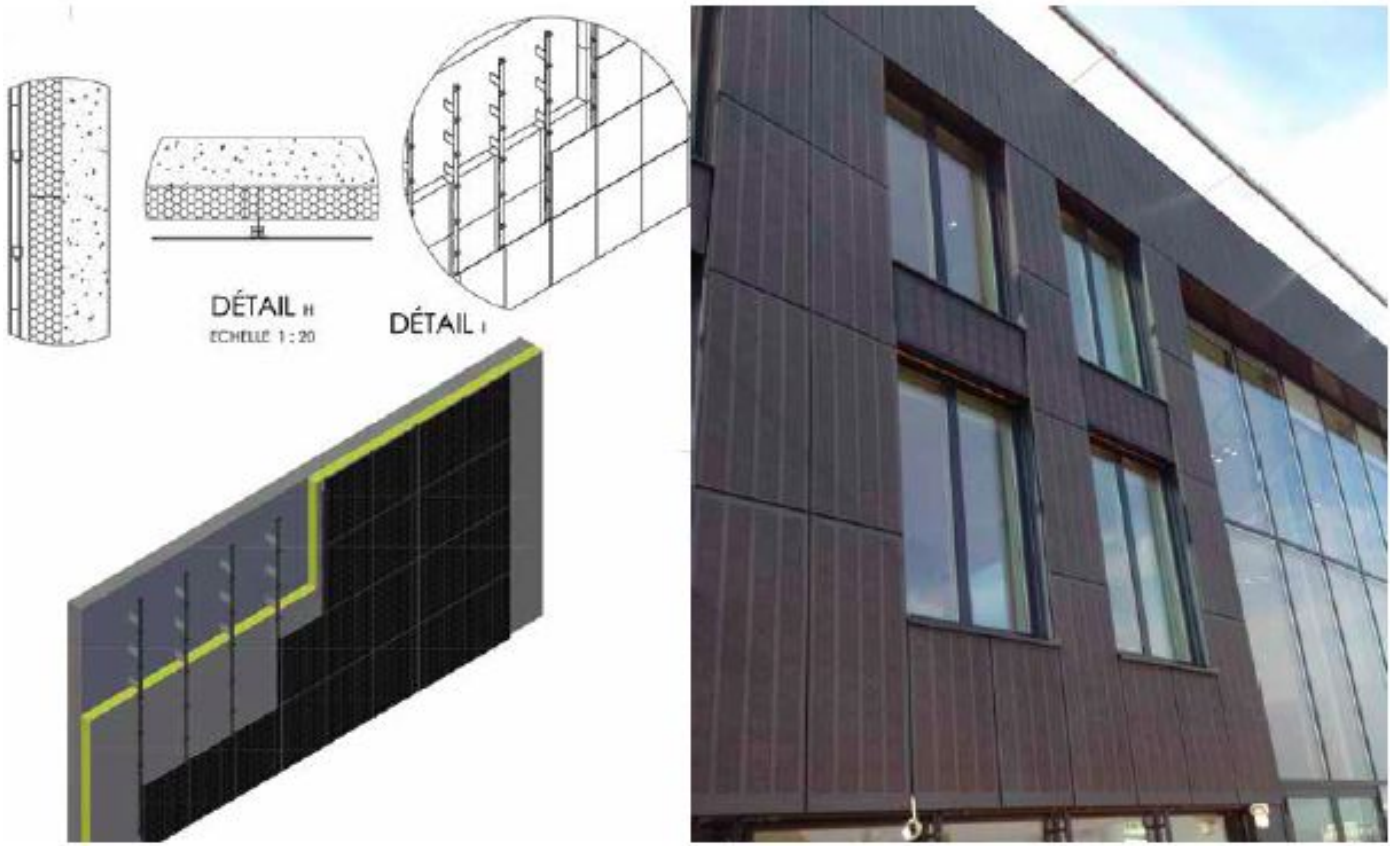
+6% organic cell

Innovations from the glass

- **ANY GLASS TYPE**
- **GLASS COLORING**
  - Even colours
  - Patterns
  - HD printing
- **TEXTILE INTERLAYER**
- **COLORED EVA**
- **FILTERING INTERLAYERS**
- **DICHROIC FILM**



Active Building Materials play a double function :



- 1st : Architectural | Mechanical, Aesthetic, Fire Safety
- 2nd: Electricity Production

INSULATED GLASS

CENTRAAL MUSEUM UTRECHT

Utrech tCentral Museum – Mijn Energie Fabriek

More references

http://references.issol.eu

ISSOL sa

Zoning Industriel des Plénesses

Rue du Progrès 18

4821 Dison (Liège)

Belgium

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www.issol.eu

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