



The Northern European Solar Energy Leader

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## “Integrētu saules enerģijas risinājumu veidošana” 13.02.2020

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# OUR TEAM



Andrejs – Sales manager Scandinavia

In B2B sales from 2002

Sold > 38MW

Master of science telecommunications

Julija – BIPV Business Developer

6 years in PV module sales

> 140 projects delivered

> 10 MW sold

Master of Science

International Marketing

Bachelor

International Business Management



# PARTNERSHIP

**SOLI**  **TEK**

**PROELEKTRO**  
DISTRIBUTION





# 1. SOLITEK COMPANY INTRODUCTION

SOLITEK is a leading Northern European manufacturer of PV cells and modules with a solid background in R&D. Furthermore, together with architects and building industry contractors, SOLITEK develops and implements building integrated photovoltaic solutions.

SOLITEK belongs to holding Global BOD Group, which is combined of high-tech manufacturing companies (PV cells & modules, ophthalmic lenses, optical discs) and large-scale real estate and PV projects development. By empowering the vertical supply chain benefit from raw material production to engineering and PV installation, SOLITEK shares great market expertise and helps to generate stable return on investment.



SOLITEK

Unique Clients 2019

#150

Countries 2019

#14

PV module capacity

120 MW

## COMPANY'S BUSINESS DIRECTIONS:

- Manufacturer of PV cell & module
- PV installer in Lithuania
- BIPV supplier and project manager
- Large-scale PV project development

Revenue 2019

€12mIn

Equity Capital

€8.6mIn

Debts / Loans

€0





# PRODUCT PORTFOLIO



Glass - Foil  
STANDARD  
280W/320W



**Glass - Glass PRO**  
**280W/320W**



Glass - Glass  
SOLRIF  
280W/320W



Glass - Glass  
Framed



Glass - Glass  
SolidWALL



Glass - Glass  
BIFACIAL



SELF-CLEANING  
EFFECT



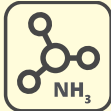
SALT MIST  
RESISTANCE



FIRE CLASS A



DUST & SAND  
RESISTANCE



AMMONIA  
RESISTANCE



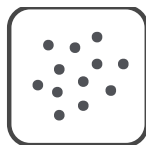
EXTREME LOAD  
RESISTANCE



# GLASS-GLASS ADVANTAGES



SELF-CLEANING  
EFFECT



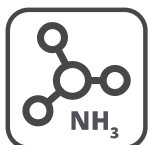
SALT MIST  
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FIRE CLASS A



DUST & SAND  
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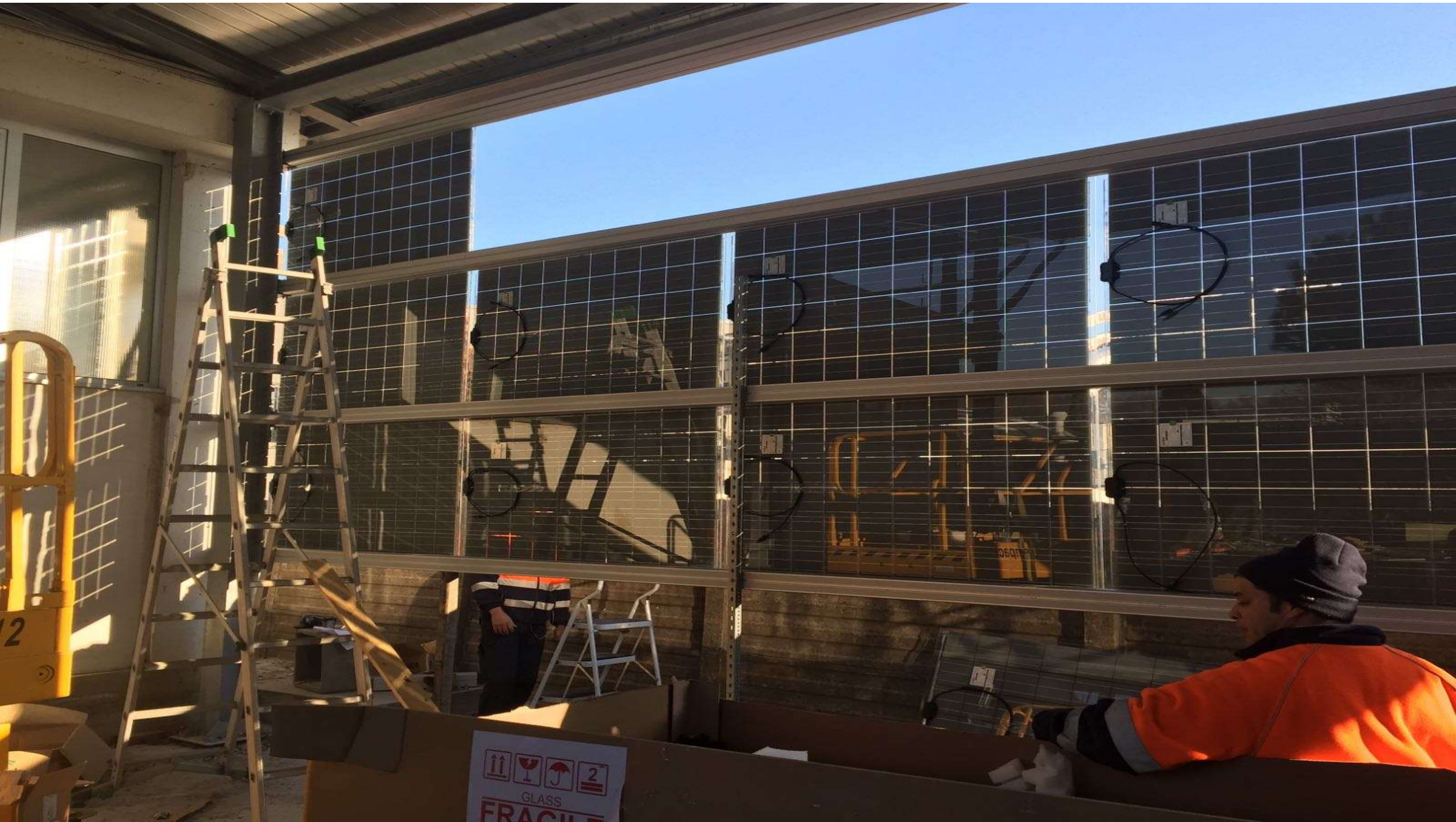
AMMONIA  
RESISTANCE



EXTREEME LOAD  
RESISTANCE































# WHAT IS BIPV (Building Integrated Photovoltaics)?

ARCHITECTURE



ENGINEERING DESIGN

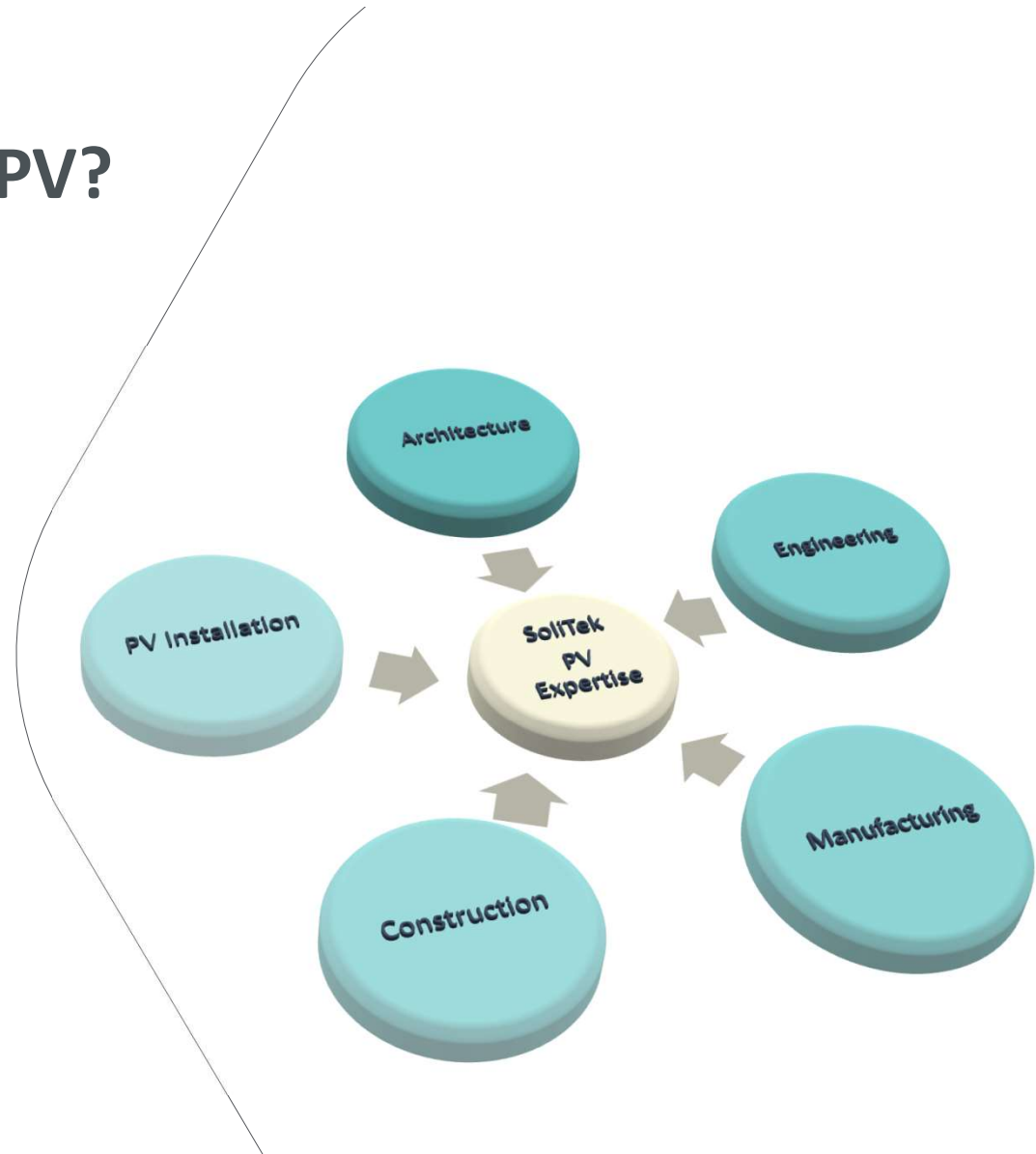


ENERGY GENERATION



# WHY WE GO TOWARDS BIPV?

1. Company's long-term strategy
  - Module = building material
  - Each building should be sustainable
2. Experience
  - Scientific expertise level in PV
  - Network in Nordics
  - Diversified activities
3. Demand
  - EU regulations for building efficiency
  - Increased market education





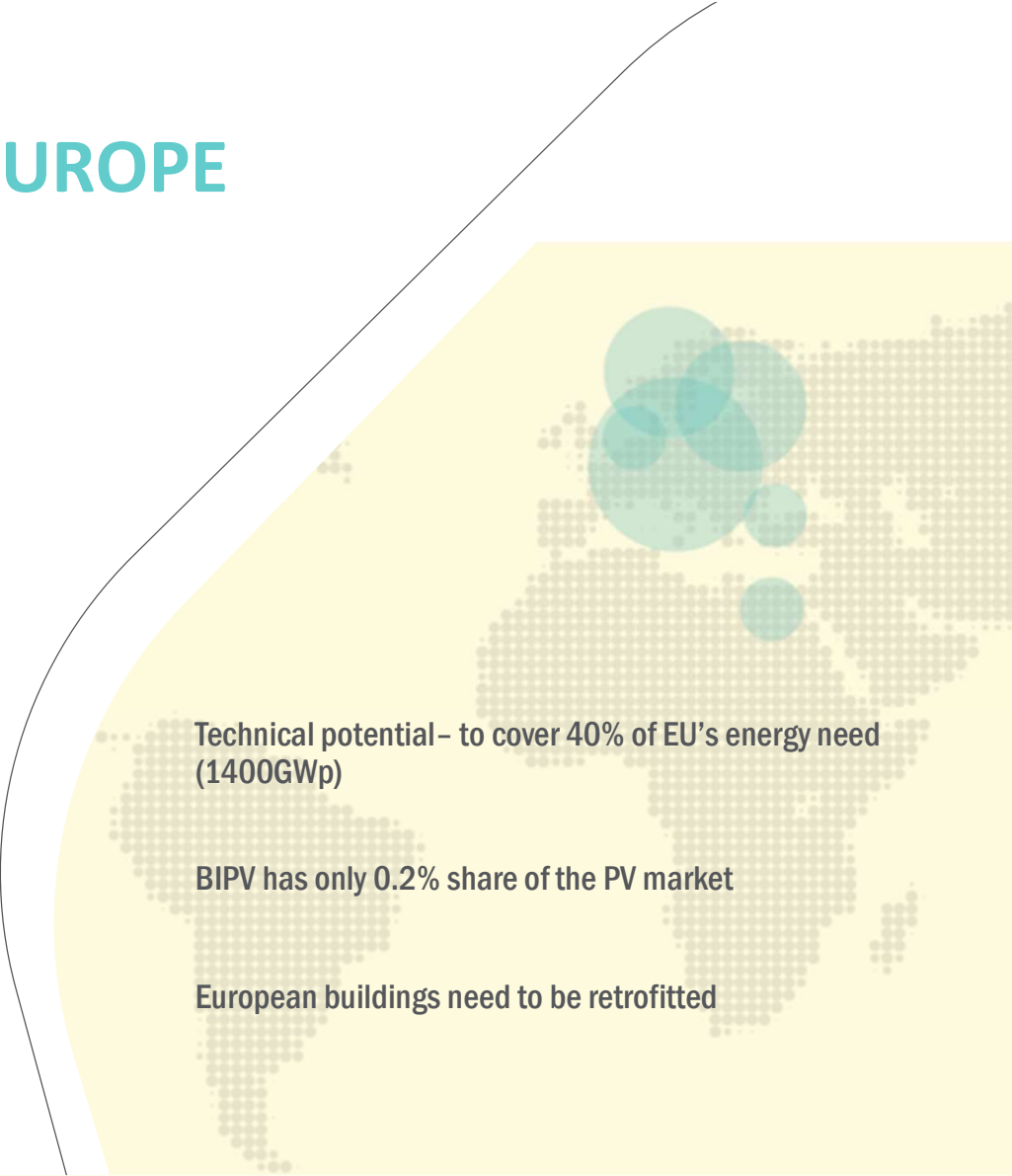
# BIPV IMPLEMENTATION IN EUROPE

## BIPV market drivers

- Buildings become active
- Sustainability becomes obligatory
- Demand for green buildings certification
- Public image
- Increased ROI

## BIPV market challenges

- Cost reduction – each project is a “unicorn”
- Performance vs. design
- Standardization across industry
- Combination of building and PV expertise
- Lack of knowledge – space for myths



Technical potential– to cover 40% of EU’s energy need  
(1400GWp)

BIPV has only 0.2% share of the PV market

European buildings need to be retrofitted

# MARKET SPECIFICS

## NORDIC COUNTRIES

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Roof integration – popular solution

Facades – upcoming more & more

People look for innovations and new technologies

Companies help each other (e.g. share their mistakes)

Sun lower in horizon – good for facades

No Snow load on facade

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Market values:

Quality

Ability to trust in supplier

Sustainability (low CO2 emission)

Ability to inspect suppliers anytime





# BIPV TYPES AND FUNCTIONS

- Electricity generation
- Architectural design
- Sun protection
- Thermal insulation
- Weather protection
- Sound insulation



Glass facade



Stone facade



Metal facade



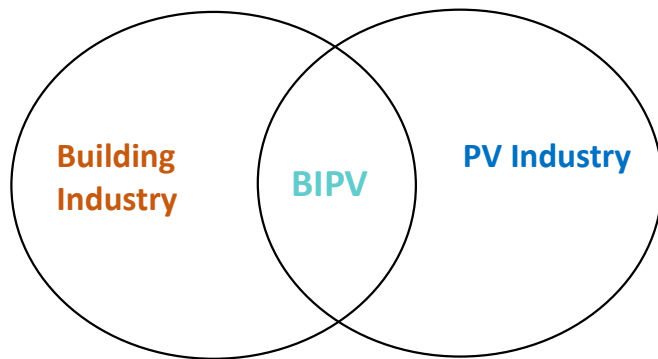
Wood facade



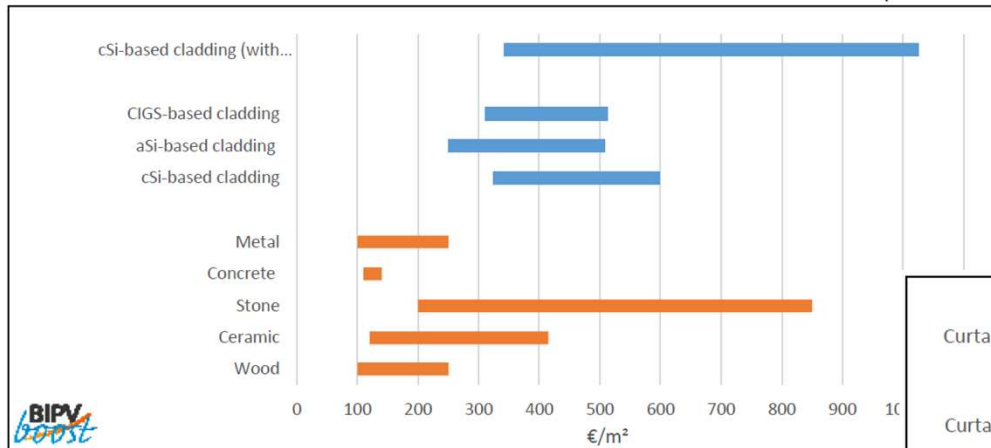
Roof with ceramic tiles



Metal roof



# PRICE LEVELS FOR END-CLIENT

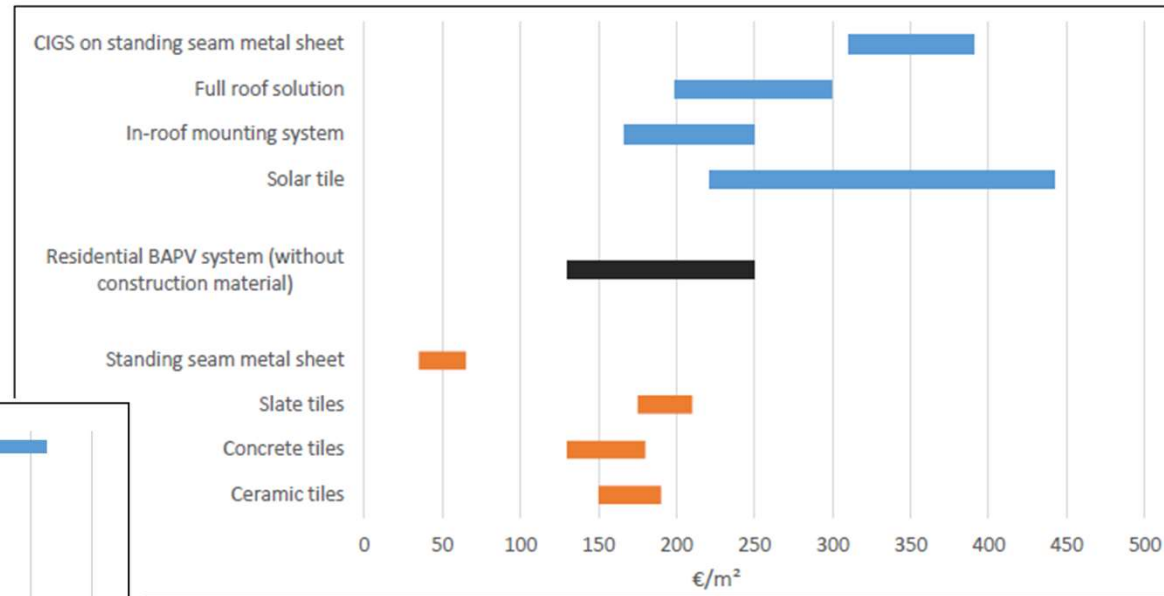


Ventilated façade solutions comparison

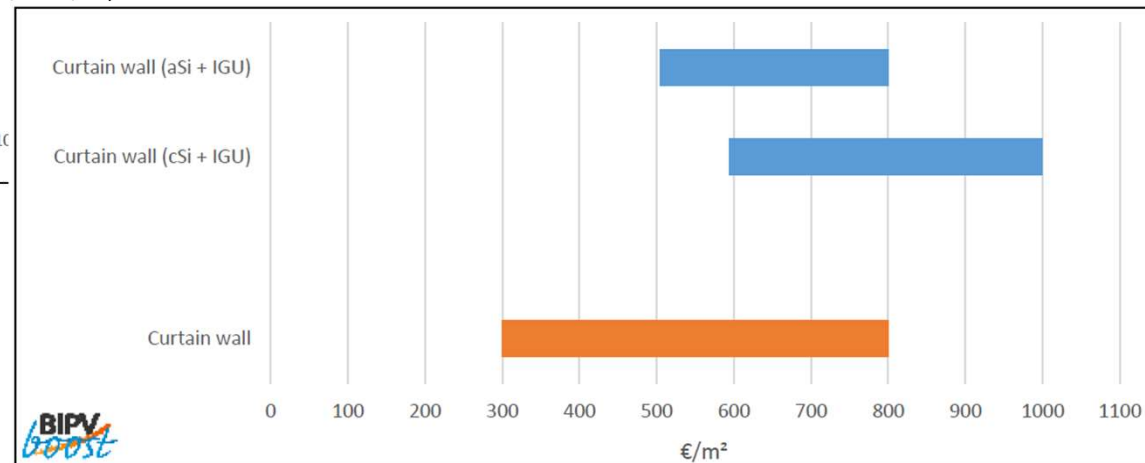
## Conclusions:

1. Price is similar to substitutes
2. Whole project should be evaluated
3. Price range is wide and depends on the product specs

Source: [www.bipvboost.eu](http://www.bipvboost.eu)



Roofing solutions comparison



Non-ventilated (curtain wall) solutions comparison



# BIPV MODULE CAPABILITIES



TRANSPARENCY



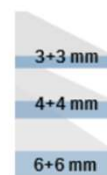
FULL BLACK



GLASS PRINTING



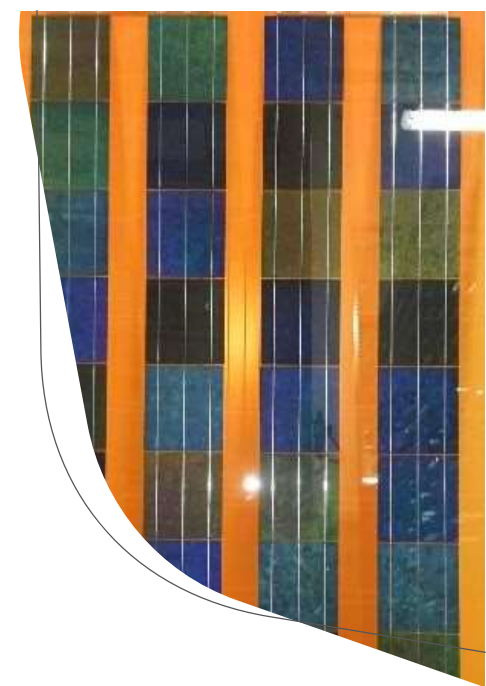
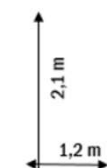
THICKNESS



GLASS COLOUR



CUSTOM SIZE



**YOU THINK IT'S LOGICAL TO DO THIS?**

# STANDARTIZATION = EFFICIENCY



**FACADE**



**CANOPIE**



**GREENHOUSE**



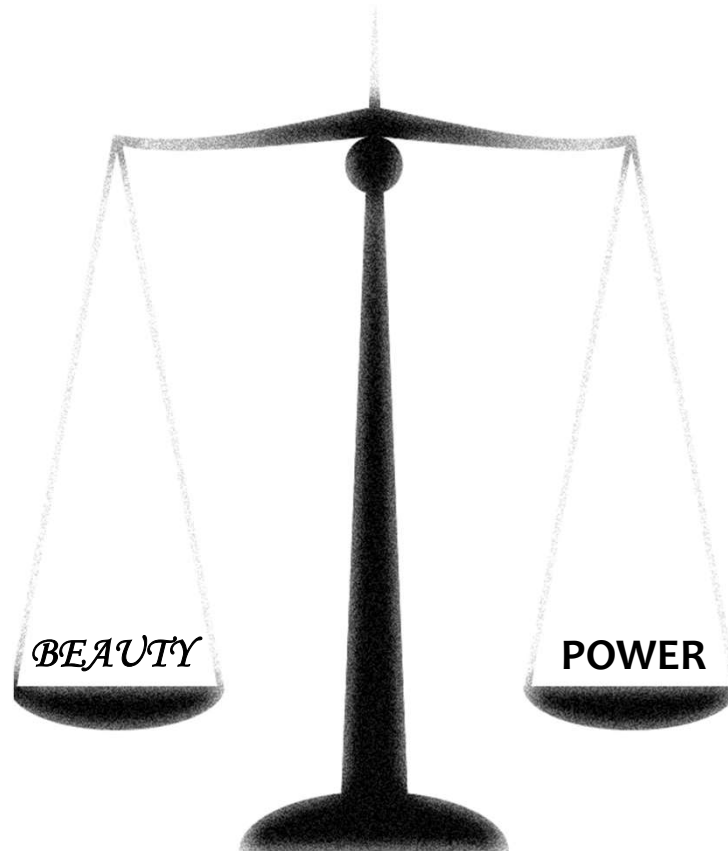
**IN ROOF**



**CARPORT**



# DILEMMA: BEAUTY OR EFFICIENCY?



# HOW WE WORK IN BIPV PROJECTS DEVELOPMENT

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We do not “sell”, we **educate**. Client should be able to make educated decision himself.

Right **partners** selection (clients or suppliers). Same business ideology.

Sales process **tools** according to LEAN. Client questionnaires & internal analysis.

Spectrum of **services**: engineering report, consultations, production, on-site guidance.





# SOLITEK SERVICES

1. Enquiry



Consulting

2. Project analysis



Engineering services:

- System layout
- Electricity generation report
- Payback calculation
- Technological system design
- 3D visualization
- Tech. alternatives comparison
- Documentation, datasheets

3. Communication



Project management

4. Construction



Module production

5. Installation



Installation / On-site support



# LESSONS TO LEARN

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- Look for existing solution
- Ask for warranties & time schedule under agreements
- Visit supplier, meet team
- If you get it cheap, probably something is not included!
- Do not hurry with budget confirmation after preliminary offers
- Check everything twice





# RECENT CASE STUDIES:

Type: Multi-level parking

Country: Sweden

Installation type: façade

PV size: 29 kW grid-connected

Stage: production in progress

Application: customized size and colour glass-glass modules.

Installer: Gridcon AB

Client requirement: [specific dimensions & optimal product development](#)

Project development before implementation – 9 months.



# RECENT CASE STUDIES:

Type: Commercial building

Country: Switzerland

Installation type: façade & flat roof

PV size: 0,7 MW grid-connected

Stage: production in progress

Application: standard size SoliTek glass-glass modules with underconstruction supplied by SoliTek.

Builder: Basler & Hofmann Holding AG

Client requirement: [top quality production and Swiss supplier.](#)

Project development before implementation – 1 year.





# RECENT CASE STUDIES:



Type: Apartment building

Country: Norway

Installation type: façade

PV size: 30 kW grid-connected

Stage: finished

Application: standard size SoliTek glass-glass modules with underconstruction supplied by SoliTek.

Installer: Suno Installasjon

Client requirement: limited space on rooftop, need to cover façade aesthetically

Project development before implementation – 2 months





**Thank you**

[www.solitek.eu](http://www.solitek.eu)