

Project proposal:  
Toward a more Liveable City Climate  
using  
Creeper plants and Photovoltaics  
instead of stone walls

**Wegwijs in EU-projectwerking**

Brugge - 22/4/2016



**KU LEUVEN**

# Challenge

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## Better living climate in the city

- Greening the city with low cost green walls/façade
- Reducing urban heat island effect (UHI)
- Reduced need for cooling (airco)

## Low energy buildings

- Local electricity production using Photovoltaic panels
- Reducing energy requirements by better isolation

more liveable city and urban environment

- Improved air quality
- Social well-being
- Biodiversity

## Need for affordable social housing and low cost renovation

- Offering alternatives to stone walls
- Focus on the shell (wall and roof)

- Lower carbon emissions
- Electricity production close to user
- Reduced need for cooling/heating

# Benefits of Greening

IVY is

- Wintergreen
- Fast growing
- Low cost
- Growth delimiter available
- Combining low cost façade (textile)
- Reduction of noise / fine dust
- Social well-being
- Biodiversity in town



# Challenges for Photovoltaic Panels

- Yield hardly monitored → 20% reduction due to shadowing not seen
- Often ugly on the roof

Need for better integration in the roof and wall → architectural challenge

Individual panels coupled to the grid  
→ existing, hardly applied but very useful technology → PV on roof and wall possible

# What kind / type of partners are we looking for:

- **Large towns or regional organisations**
  - Having invested in a **climate study**
  - Being aware of the need to **introduce green elements**
  - Preferably with a **plan for climate adaptation**
- **International partners using other wall technologies not used in Flanders**
- Partners looking for new concepts for **building isolation and low cost textile façades** grown with creeper plants
- **Architects and building constructors** to think about the effects on building of replacing stone façade by creeper plants

# Our offer as partner :

- Research group with knowledge of yield measurements for PV panels (KULeuven, Energy & automation, Gent)
- Experienced partner for limiting the growth of creeper plants (GGGevelgroen bvba)