

Development of Smart Solar Glazing (Utveckling av smarta solcellsönster)

Budget: 3.8 MSEK

Project Duration: 2 years

Funding Programme: E2B2

Grant No.: P2022-00859

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UPPSALA
UNIVERSITET

ChromoGenics

The performance glass pioneers

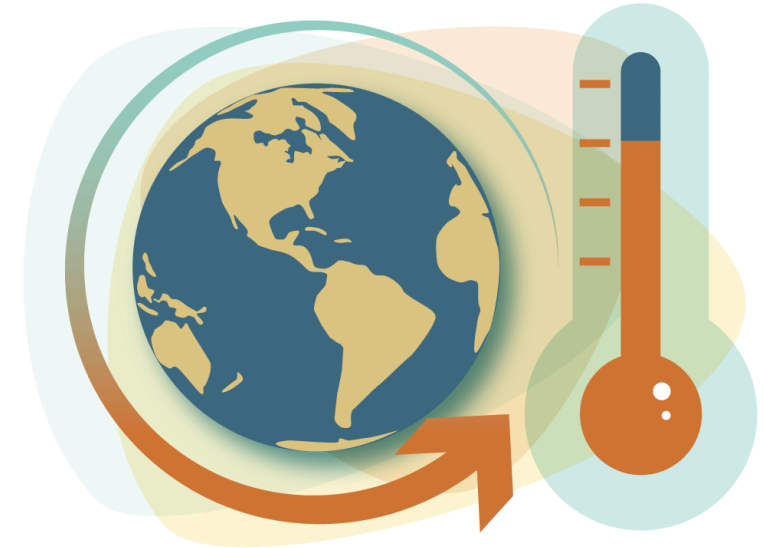


Why is the project important in a larger perspective?

We know that we are facing a global climate challenge

- 17 Global Goals
- Technological advances is a hope

Energy efficiency, Energy Harvesting and Human Comfort are all a part of the Global Goals!



What will the project solve?

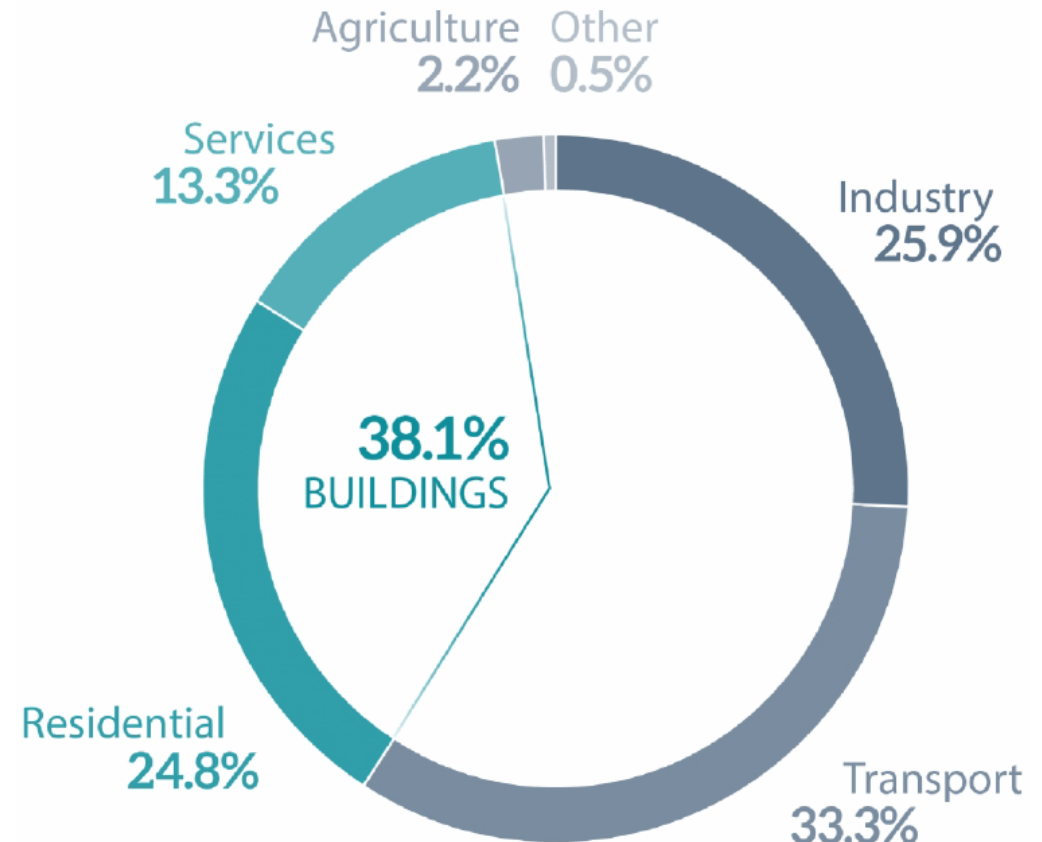
Facts:

- ~90 % of the time we spend indoors
- Building comprise ~38% of the energy consumption
- Heating and Cooling 50% of the energy use

Thus:

Energy efficiency, Energy Harvesting and Human Comfort should be top priority!

Figure 1 – 2014 energy consumption by sector in the EU-28



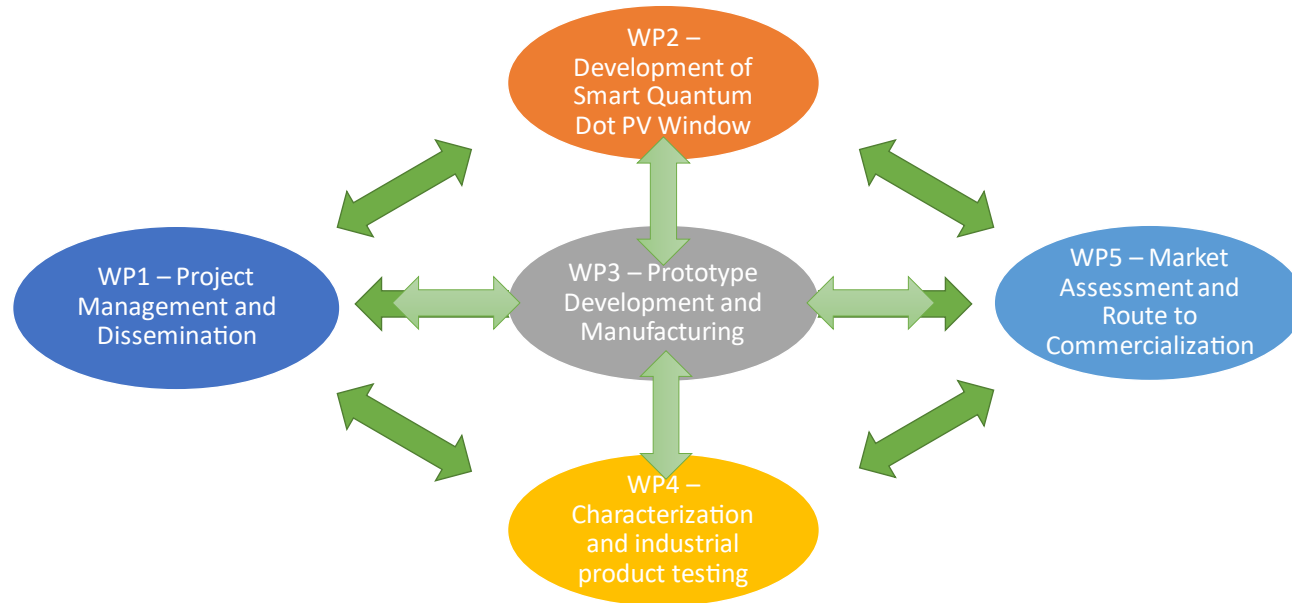
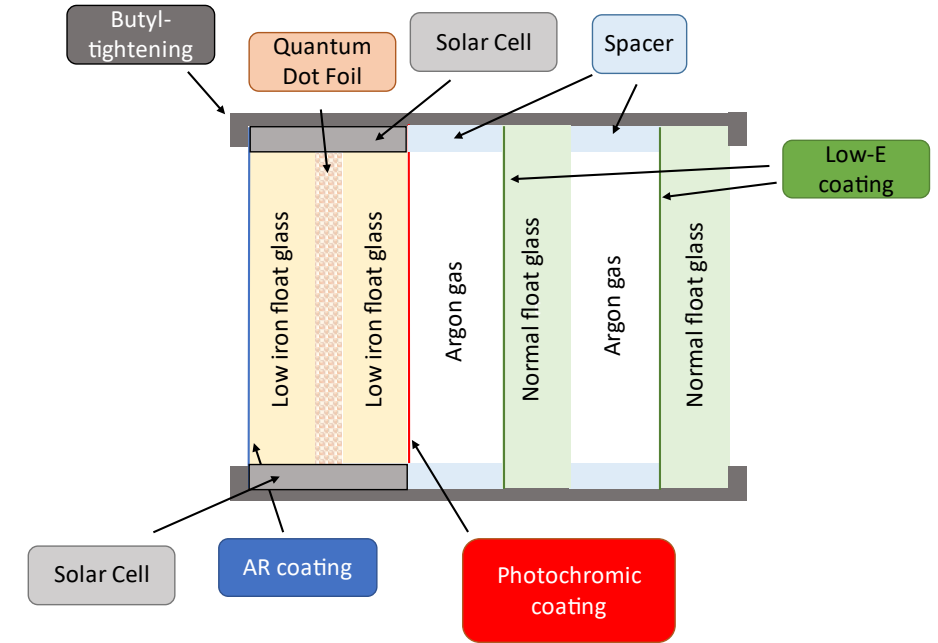
Data source: [Eurostat](#), 2014.

What is the project about?

To develop a glazing that is

- Energy efficient (low U-value)
- Energy harvesting (LSC concept)
- Energy Saving (Dynamic SHGC)

And gives Human Comfort (Dynamic SHGC)



To do in project

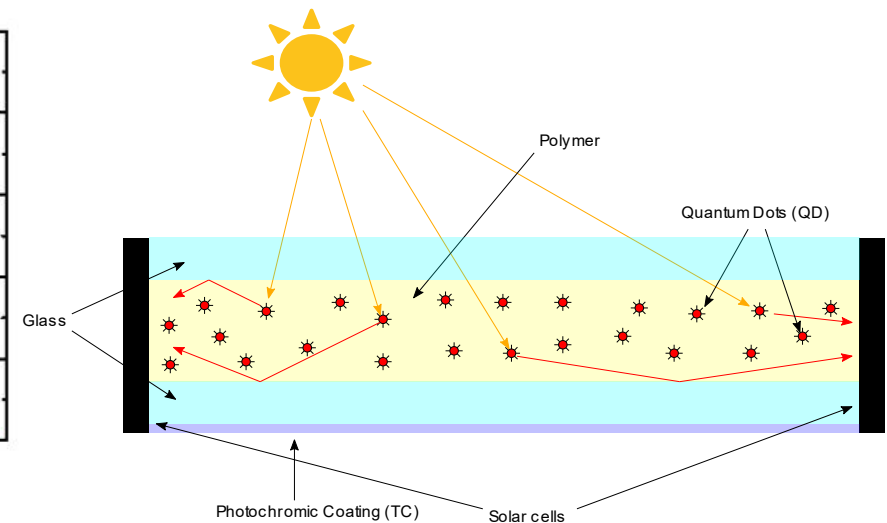
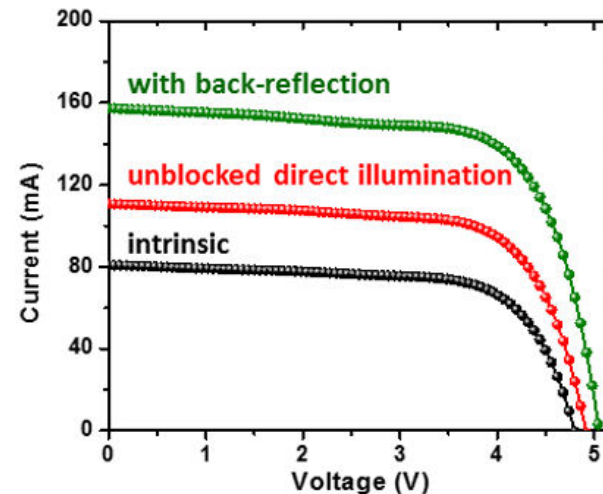
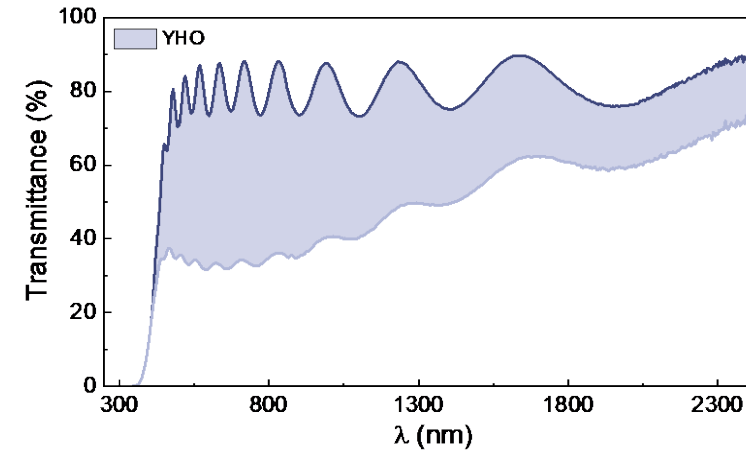
- Simulation & Optimization
- Prototype Development & Manufacturing
- Characterization & Testing
- Market Assessment

What will be done in the project?

- Photochromism



- Luminescent Solar Concentrator Concept



Goal: to reach 45 to 78% dynamic variable transparency and >3% power conversion efficiency.