



PIMES CONCERTO:

***Methodology to plan according the local
circumstances (climate, RES)***



RETrofitting Conference
Budapest 2.10. 2014.

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Director of ÉMI knowledge centre
PIMES Local Coordinator.



PIME'S receives funding from the
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Agreement No 239288



Formal experience: Green Solar Cities Salzburg



- **Brownfield project**
- **Quality agreement**
- **Solar thermal + heatpump**
- **Passive house concept**
- **New building and reroftitting**
- **Public acceptance**
- **Monitoring, online info**



Industry-Research-Innovation-Training-City

REtrofitting conference

Budapest 2. 10. 2014.



Előzmények: Green Solar Cities Copenhagen

- **Formal R&D projects**
- **VALBY 2025: 300 000 m2 PV**
- **15 % of electricity from solar**
- **Brownfield area: Carlsberg**
- **Building integrated PV**
- **CHP on biomass**
- **Energy+, Energy++ building**
- **New and retrofiting**
- **PV cooperative**



Industry-Research-Innovation-Training-City

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Staccato Faluház



RETrofitting conference Budapest 2. 10. 2014.

PIME'S projekt: Dale (NO), Szentendre, Vitoria (ES)

**European scale
multiplicable options**

2009-2014/5

R & D & I

Demonstration



Large scale renewables

Energy management: microgrid

Utilise local resources

Recycled insulation

Efficient cost reduction

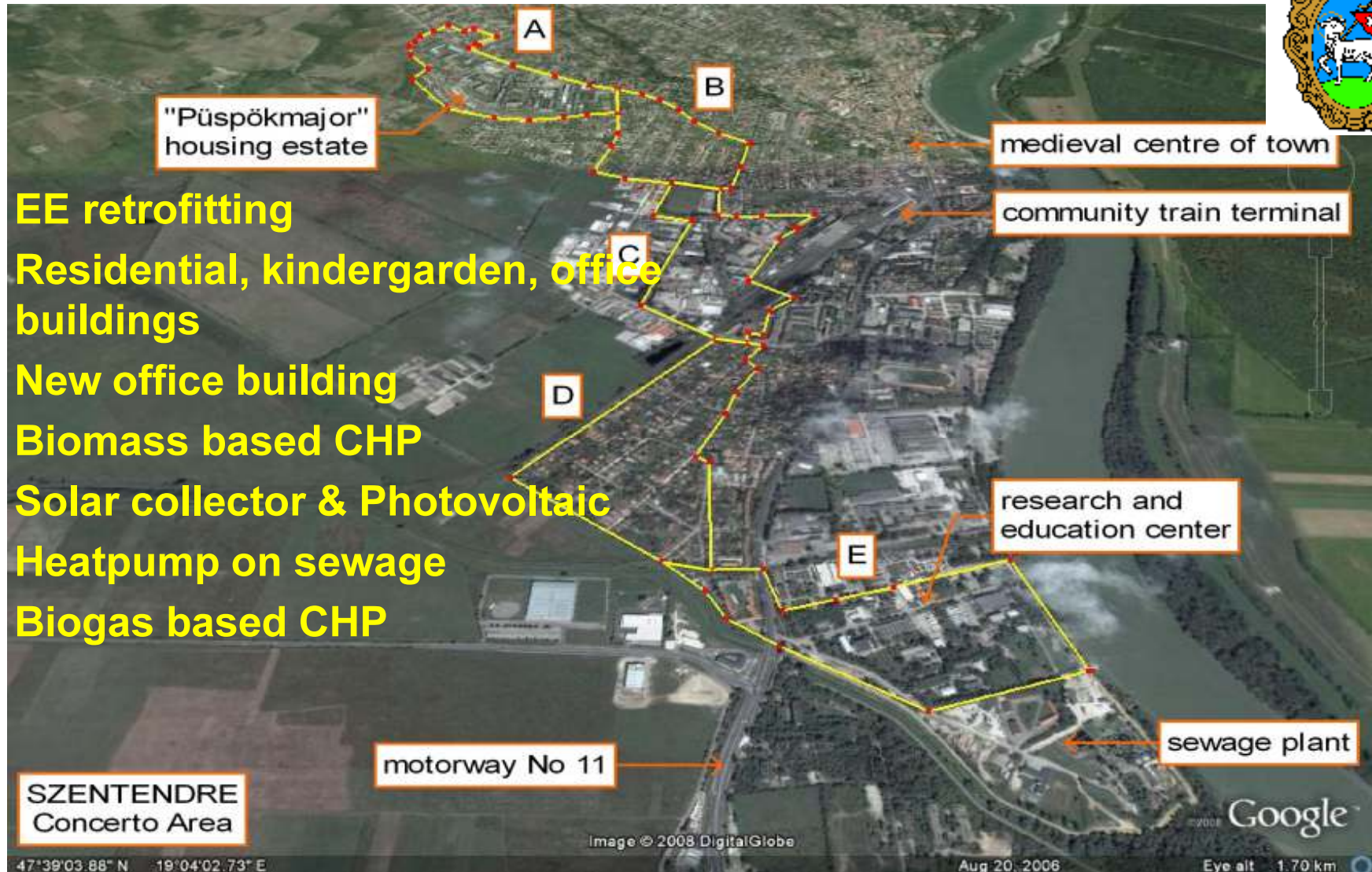


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PIMES CONCERTO area Szentendrén



Püspökmajor: Hamvas Béla utcai residential retrofitting



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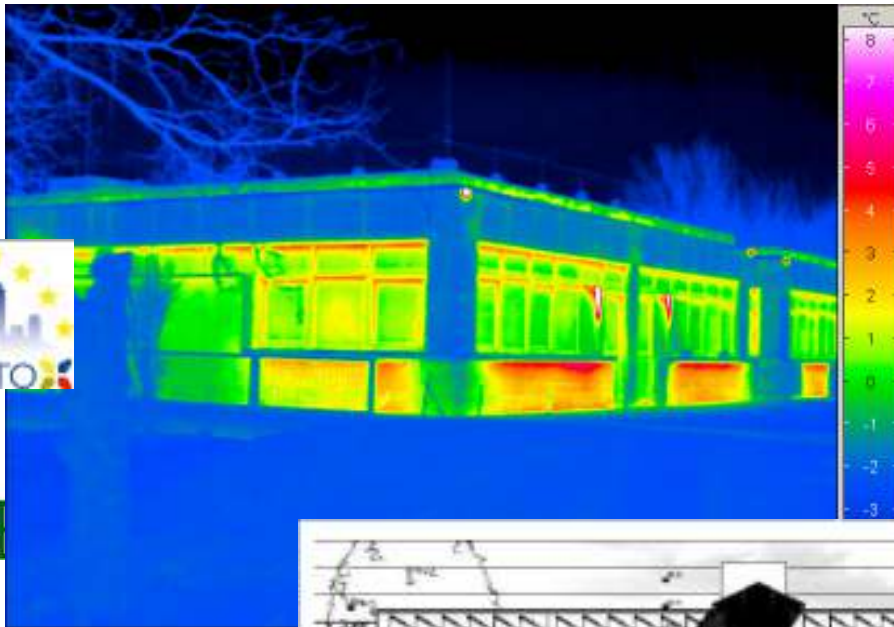


Püspökmajor residential retrofitting „English houses”



Püspökmajor lakótelep Óvodaépület felújítás CONCERTO

- Sunspace
- Recycled polystyren
- Green roof
- PV as shading



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INNOVÁCIÓS NONPI



Püspökmajori kindergarden PIMES retrofitting : Footing-roofing-sunspace



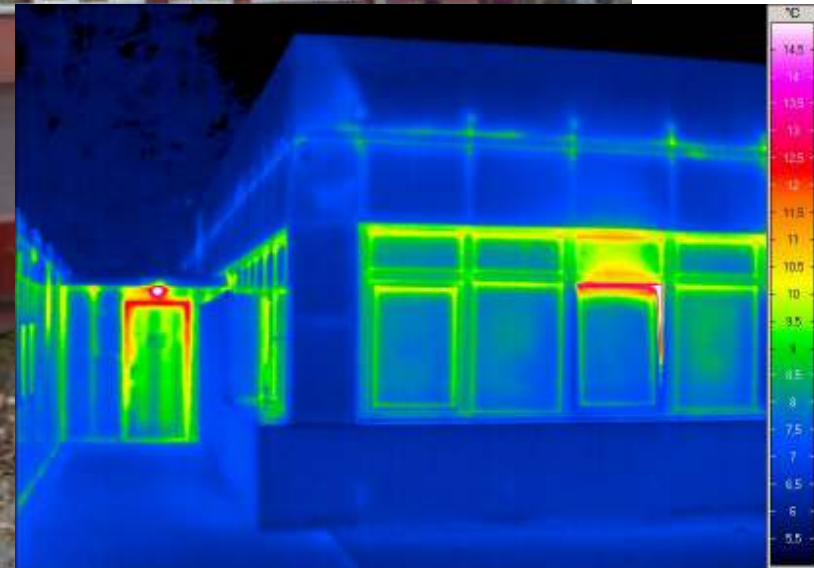
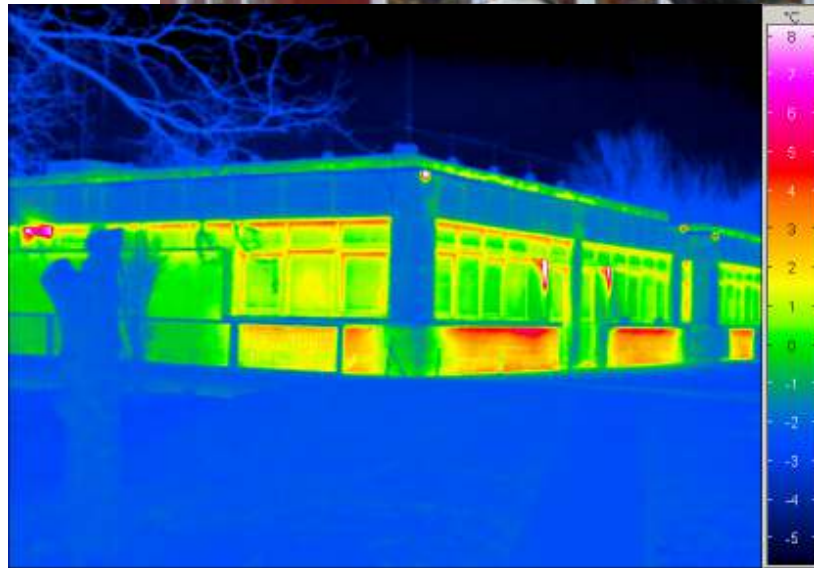
PIMES retrofitting : New attic wall with recycled cellulose



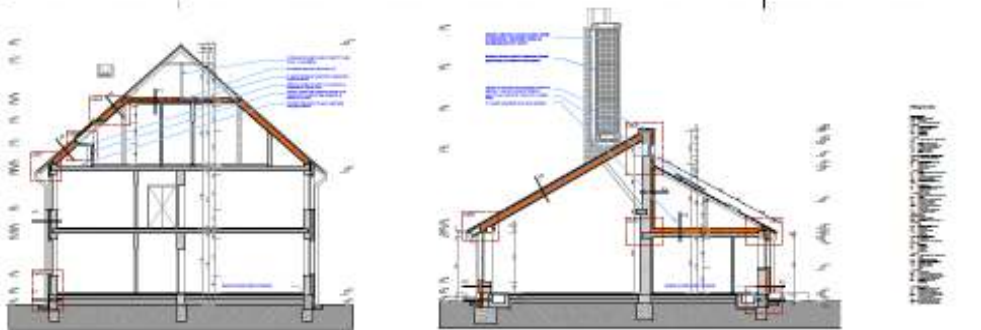
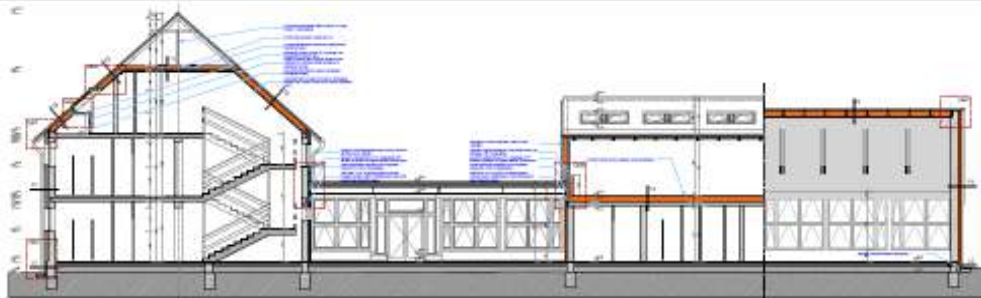
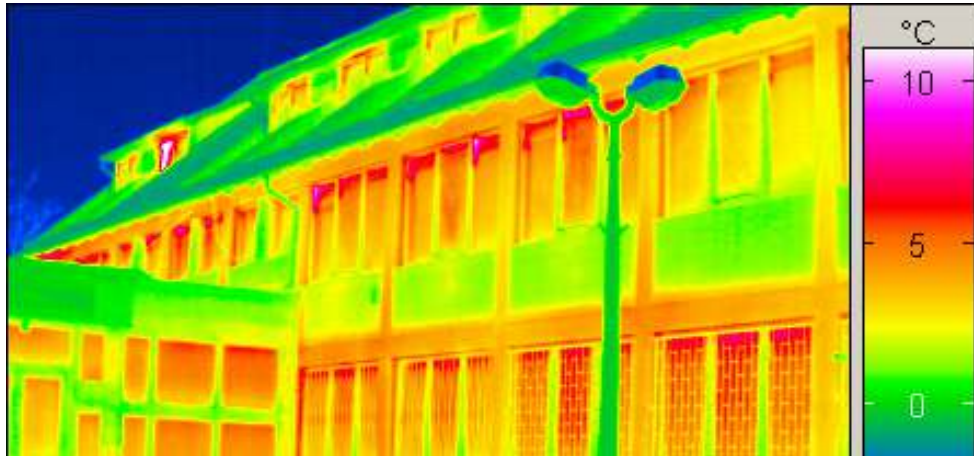
PIMES retrofitting : new roof, green roof



Püspökmajori kidergarden PIMES retrofitting



VSZ Zrt office retrofitting



VSZ Zrt office retrofitting



VSZ Zrt office retrofitting



VSZ Zrt new solar systems



VSZ Zrt biomass based CHP



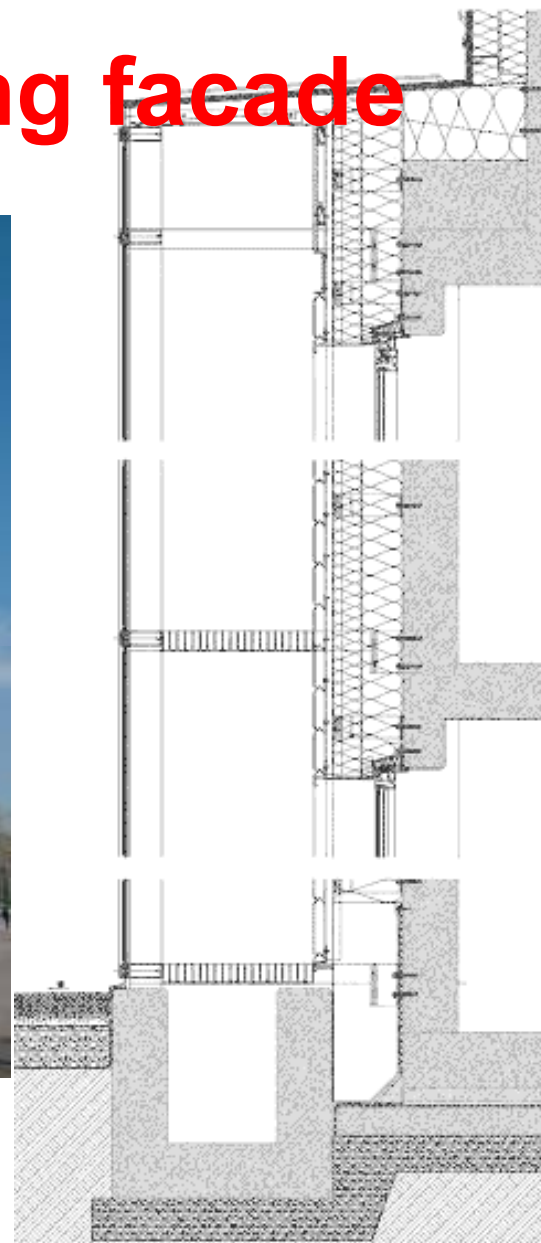
VSZ Zrt biomass based CHP



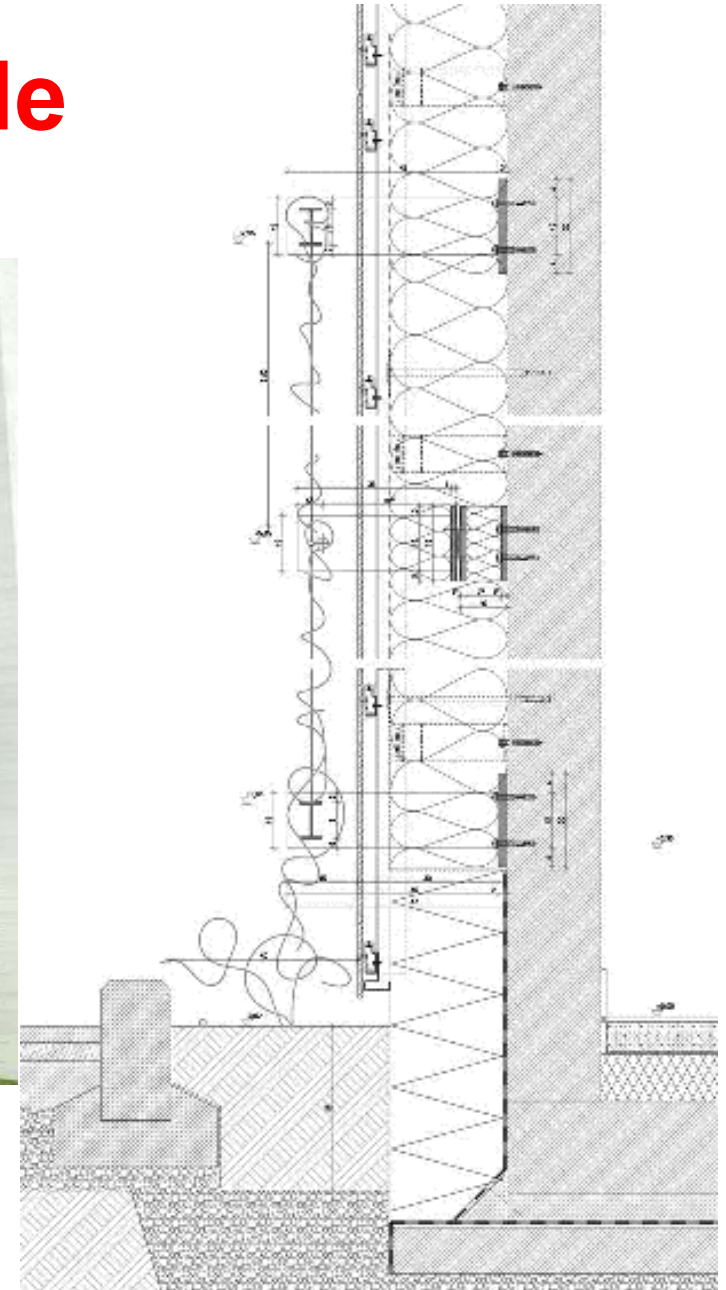
ÉMI new office building



Ventillated double glazing facade



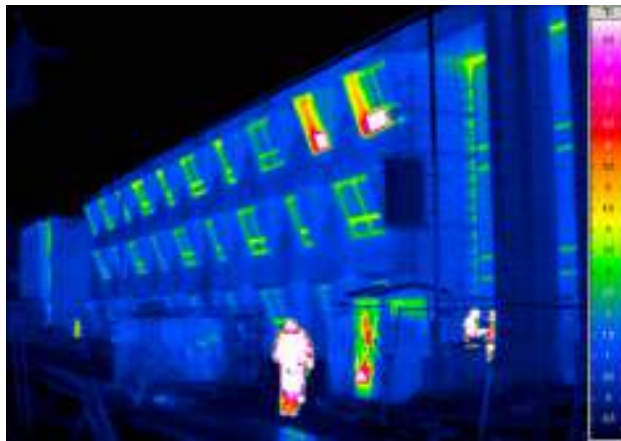
Green facade



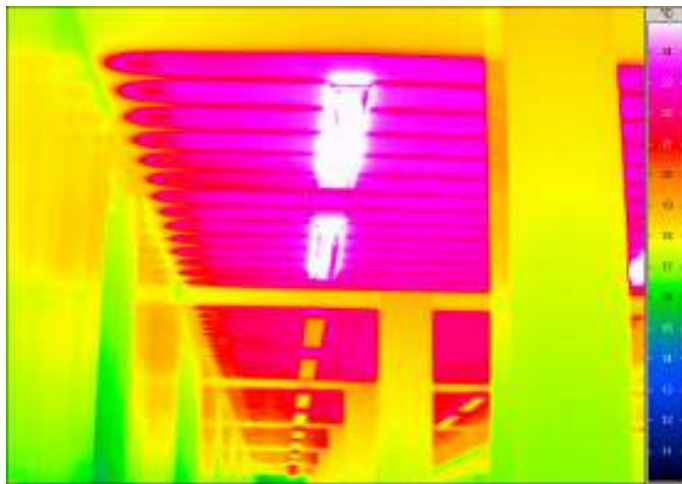
Summer shading



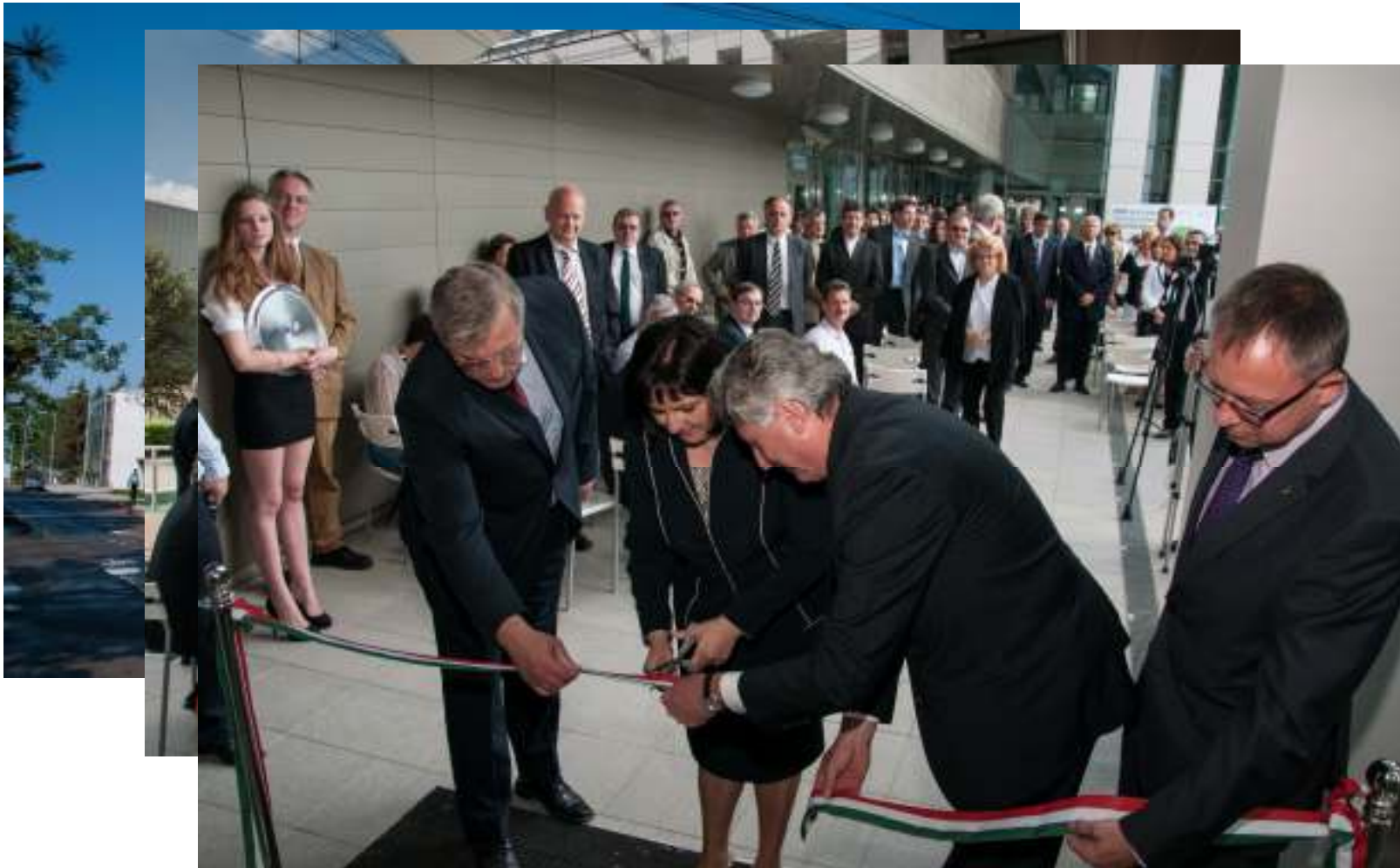
Recycled thermal insulation



Low temperature heating and cooling



Opening ceremony 2013



Biogas based CHP, heat pump on sewage



Heat pump on sewage



Biogas based CHP, heat pump on sewage



Integration: car park shading with PV

Típus: UNISOL PV-49 db: 320 db
PV surfaces: 252,984 m²
Hajlásszög: 35 degree
Planned yearly produ



Conclusion:

- Important to match to the building
- Utilising passiv solar = sunspaces
- Integrated PV, PVT
- Office & laboratories retrofitting
- Biomass based CHP
- Online monitoring
- Microgrid



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Thank you for the attention!

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