Experience of a Covenant of Mayors signatory: The Budapest Village House project

Tamas Solymosi
Covenant of Mayors Office

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Agenda

1. Covenant of Mayors in figures
2. Utilities cooperation: Data sharing(?) + ?
3. The Village House project

Staccato is a project of the concerto initiative co-funded by the European Commission under the Sixth Framework Programme

Covenant of Mayors in figures

... **6,000** EU signatories, representing about

1/3 of EU population*

among 'policies with highest impact on climate change mitigation‘ (The Economist, 2014)

... **78%** signatories submitted their Sustainable Energy Action Plans (SEAP)

* 80% of signatories are in (IT +ES). Wide variations in population: IT, ES, DK: >60%, LT, LV, EE: >40%, Poland: <10%

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Utilities & cities: data sharing (?) + ?

- Energy data
- Technical expertise
- Customer access
- Financial capacity
- Energy Union
- EED: EEO

Data sharing?
Awareness raising?
Project management?
Financing?

- Project development
- Utilisation of EU & private funding
- Regulations
- Risks
- Profitability
- Image

Several potential ways to cooperate

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The Village House project

FOTAV - Budapest municipal DHC co:

- 238,000 flats & 7,000 other clients
- >10,000 TJ annual heat sales

53%: specific space heating consumption of lowest decile (10%) of residential clients as compared to highest decile (2013) *

* Source: FOTAV

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Village House: technical content

- **EU Concerto Staccato** (model) project: integrated EE / RES
- **Deep renovation** of largest **residential building** in Budapest
  - **886 flats**, plus common spaces, ≈ 3,000 inhabitants
  - Thermal insulation (10 cm) of facade, roof, basement ceiling
  - Replacement of (1,800) windows - 90% of total (2,180)
  - Solar thermal collectors (125) on roof, buffer tank
  - Heating system (centres, regulation, monitoring) - partly before project

- Upgrade of ventilation systems, elevators, etc. in separate projects (2003-2013)

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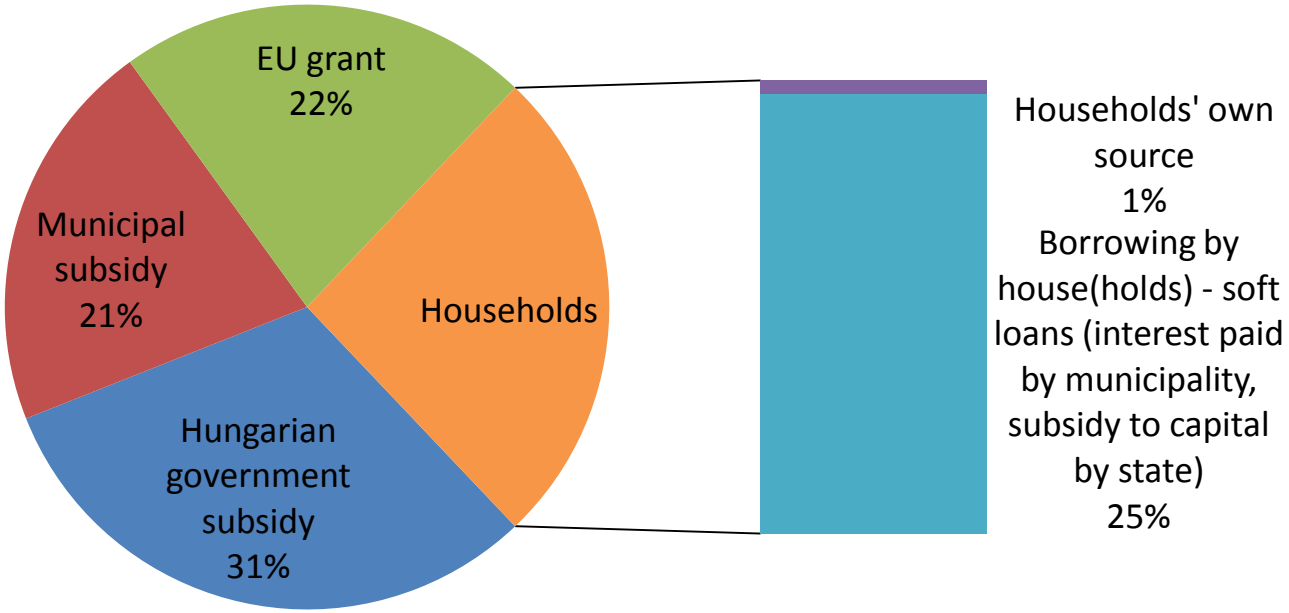
Village House: 2009 investment

- About EUR 4.4 million investment (3.2 EE, 1.2 RES)



- About EUR 5,000/ flat
- Over ¾ public funds, 1% own funds of residents
- Other building upgrades (2003-2013) financed by suppliers (elevators), own funds and bank (soft loan for refurbishment, with state support)

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Village House: success factors

- Key triggers / success factors (82% of owners approved Concerto project):
  - **Project manager**: long time, ambitious representative of building - retired mechanical engineer, trusted by inhabitants (living there since 1976, rep for over a decade)
  - **Subsidies:** generous public financing (in several forms): municipality (District III), Hungarian government, EU
  - **Assurance** that costs of owners will not increase: debt service of (8 year) loan will be < than energy bill savings
  - Access to **private finance**:
    - off-the shelf financing (banking) product available
    - 3% of flats were owned by municipality, these could be used as collateral for financing various upgrades
    - Significant revenue of building from shops lease on ground floor and ads displayed (very high visibility building)

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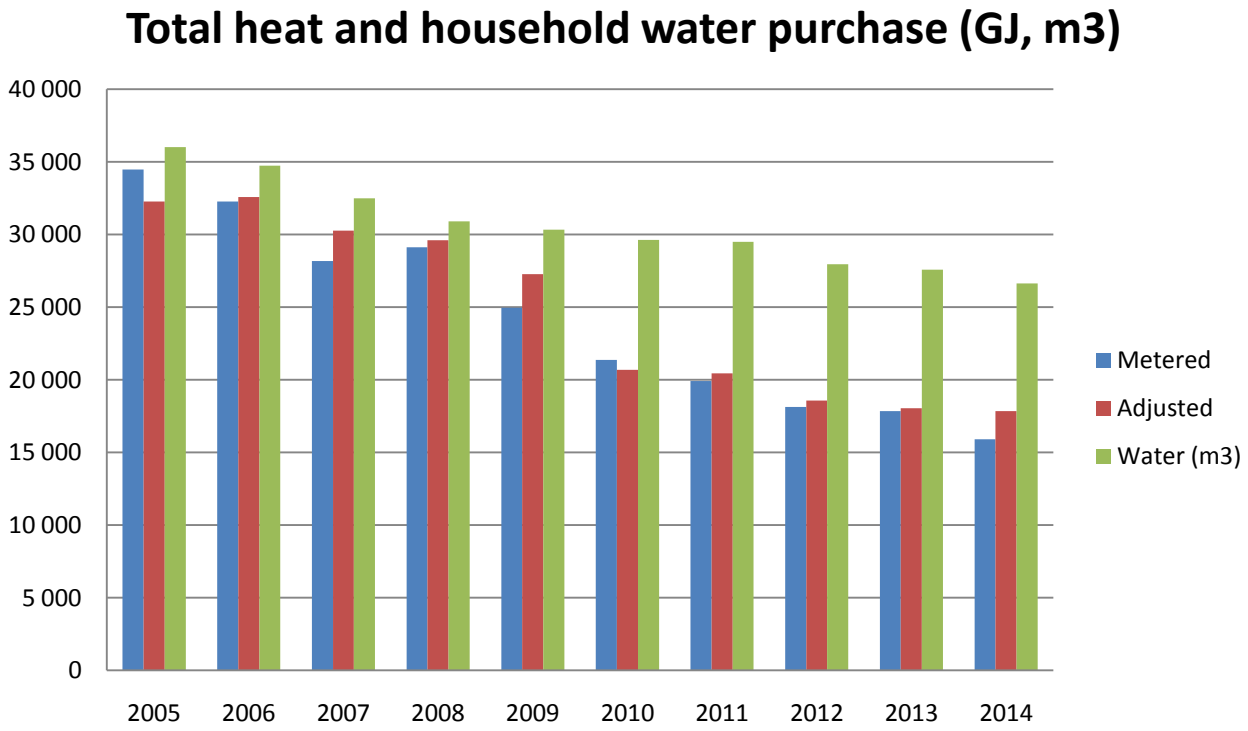
Village House: results (energy)

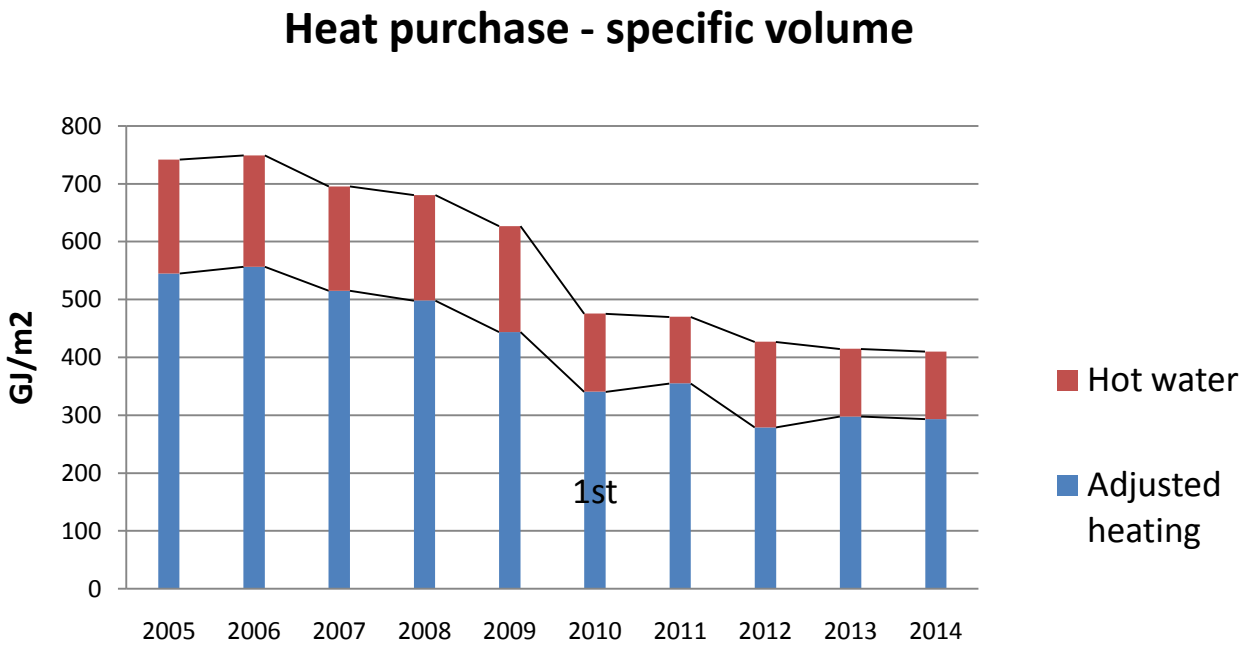
- Energy consumption category “B” reached in Display (www.display.campaign.org)
- Solar thermal replaces high-efficiency cogeneration in >6 months



Source: FOTAV

Village House: results (energy)

- 45% decrease in specific heat purchase over a decade
- Hot water close to 30% of heat purchase



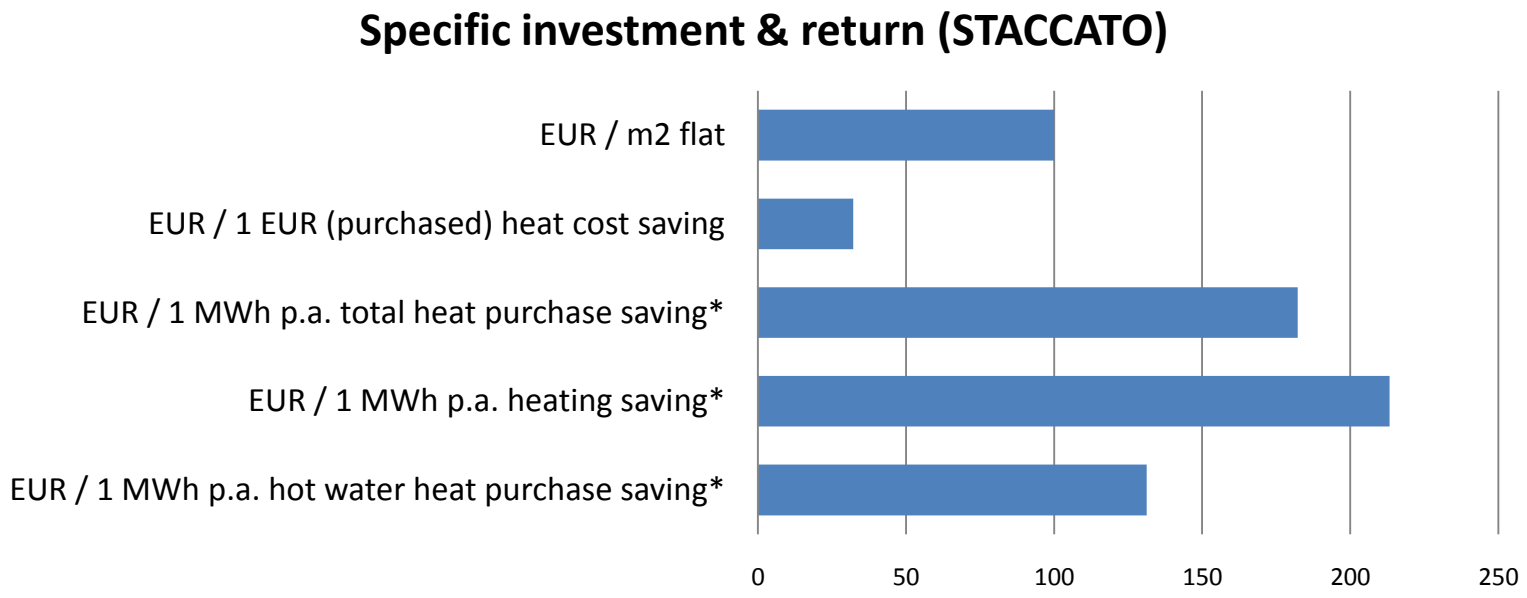
Village House: results (financial)

- Low **debt service** of residents **covered by** energy **cost savings**:
  - Residents had only about EUR 10/month debt service (8 year loan related to STACCATO)
- STACCATO: > 30 years overall **investment payback period***, while ≈5 year payback for residents (on their investment)
- **Market value of flats** increased by about 80% of total investment (according FHB real estate transaction database, compared to transactions in neighbouring houses)

* Considering only energy purchase cost savings

Village House: results (financial)

- **Low cost funds required** for deep (residential) retrofit
- System level impact of solar on high efficiency cogeneration?



* Using average savings in 2010-2011 as compared to 2009

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THANK YOU!

tamas.solymosi@eumayors.eu

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