SERVE
Sustainable Energy for the Rural Village Environment

CONCERTO

How to bond energy and people? – Assessing economic and social impacts of the SERVE project

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SERVE project – background

- FP6 CONCERTO Project: SERVE (**S**ustainable **E**nergy for the **R**ural **V**illage **E**nvironment) 2007 – 2012
- 12 partners, Coordinator: LIT (IR)
- Budget: €10.1m (EC: €4.1m)

Region characteristics:

- No *cheap* fossil fuels sources;
- Rural area with strong agricultural base;
- High unemployment rate;
- Owner-occupied homes (79.9%);
- Older housing stock.

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SERVE project – core activities

- **Retrofitting for Existing Houses and Buildings**
  - 400 homes and 20 non-residential buildings
  - 300 individual RE systems
- **Ecovillage – a new sustainable community**
  - 132 highly efficient new buildings (50+ built)
  - 100% Supply of Heat from Renewables (1 MW Biomass DHS + solar collectors)
- **Monitor** what was done and prove results
- **Train** people to build up skills
- **Research on socio-economic impacts**

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Socio-economics – what is it?

- People, people, people!
- **People and economy**
- People and environment
- People and society (other people)
- Local communities in focus
- Regional (very specific) issues

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Socio-economics within project

- To assess the impact of the SERVE project on the region and its citizens:
  - Impact on local job creation
  - Opportunities for development of ESCO's
  - Economic analysis of performed retrofitting measures in building sector
  - Social case studies and base line survey: effects on health, involvement, attitudes of building owners and consumers...

Impact on local job creation

- Observing impact of biomass heating systems on local job creation (direct, indirect and induced)
- Study based on SCORE model
- Three biomass heating systems installed:
  - Ecovillage DHS – 1 MW
  - Gurteen college – 600 kW
  - Nenagh pool – 400kW

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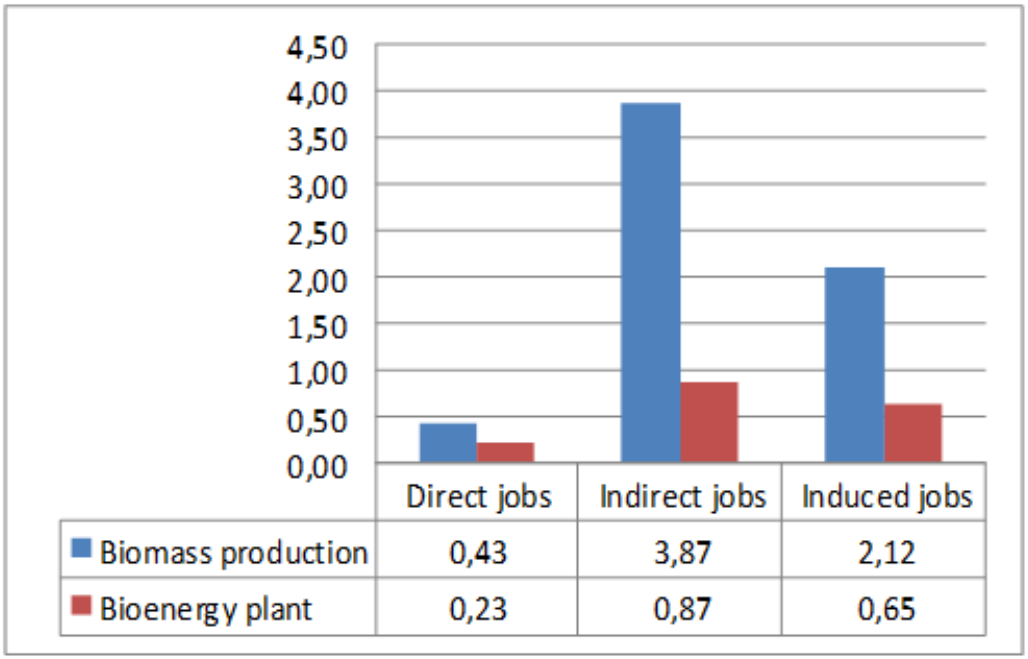
Impact on local job creation - results



	Direct jobs	Indirect jobs	Induced jobs
Biomass production	0,43	3,87	2,12
Bioenergy plant	0,23	0,87	0,65

- Results heavily depend on involvement of local stakeholders – no major biomass or equipment supplier within SERVE region – only O&M services

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Economic analysis of retrofitting measures

- Assessing key financial indicators of performed measures:
  - Financial parameters (payback periods, NPV, IRR)
  - Sensitivity analysis
  - Funding schemes (grants, loans, own funding)
  - Involvement of local companies

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- **Results**:
  - Grant support makes investments more attractive to citizens and mitigates potential price/performance risks
  - Involvement of local companies - key in supporting economies of local communities

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ESCO's in Ireland – overview and analysis

- **Analysis of the status and potential development of the Irish ESCO market**
  - ESCO and EPC market still underdeveloped
  - Necessity of government supporting financial mechanisms and biomass deployment schemes in order to stimulate the ESCO market
- **Ecovillage ESCO – Case study**:
  - District heating to be considered at an early stage
  - Clients need more experience and training
  - Complexity of biomass DH network ownership issues, ESCo's Community Interest Companies, service and maintenance costs

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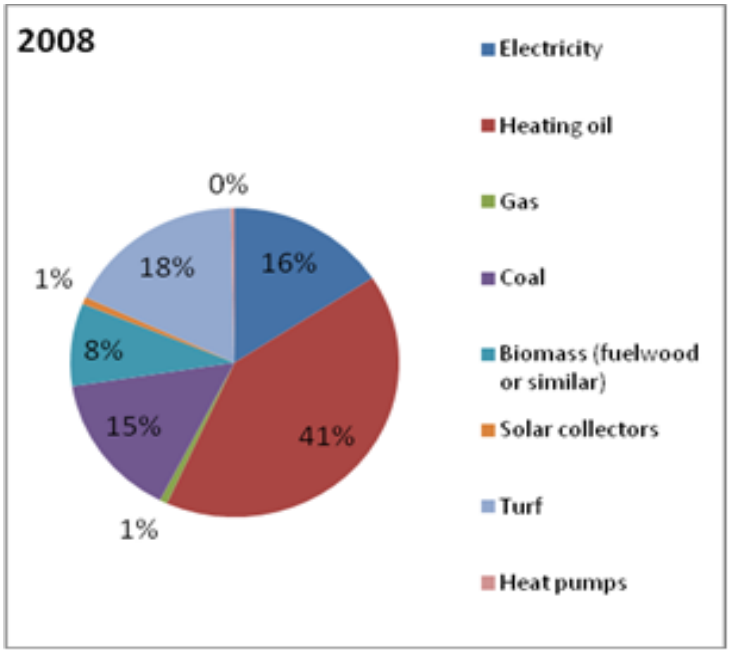
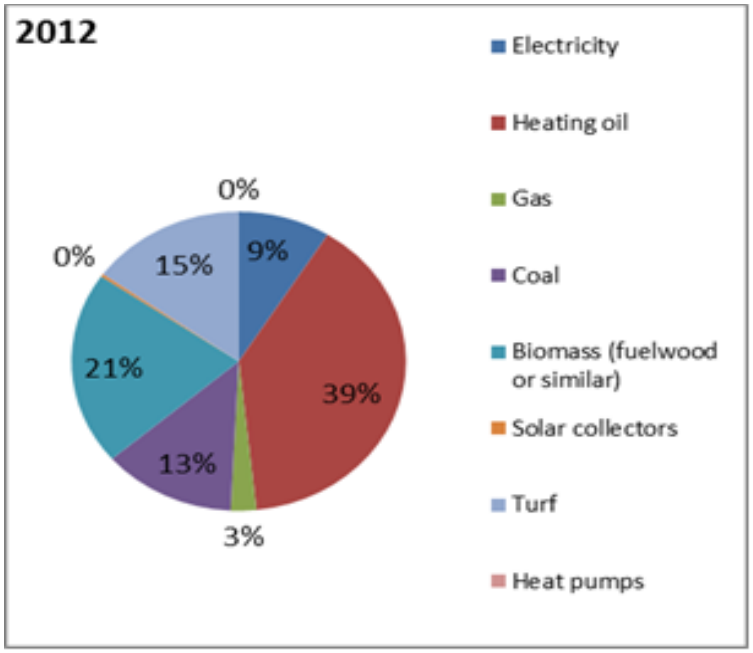
Baseline Study Research

- Surveying citizens regarding their attitudes on RES/RUE





- Results show a 13% increase in biomass use
- However, priority was given to economic development over environment protection

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Social Case Studies

- In–depth social analysis of stakeholders involved:
  6 Ecovillagers, 6 Householders, 6 Retrofitters, 3 Councillors
- Focused on people, not sample!
- Phenomenological approach: semi-structured interviews

What was assessed?

- Motivation and reasons, level of engagement, barriers encountered vs main benefits, overall satisfaction, influence and predicted impact on regional and national level

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Example Case study: Mr. Pa Finucane

- Major change of life style – life meaning seeker

"...I sold the house and a lot of things came into perspective – what are we doing, what is it all about..."

- Attracted to traditional village life

"...I always felt quite strongly that the traditional village is what man is about..."

- Ecovillage hostel owner

- On Consensus:

"...The decision is made and goes forward in a much better way and it's a stronger decision for the whole community..."

"I wouldn't be saying it's the best decision I ever made in my life if it wasn't!"

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Example Case study: Mr. Tony Dunn

- Initial motivation:

"*What happened was, my son was building a new house and put in a stove …. I saw the heat coming from it and said they are a great idea*"

- Grants/subsidies - a big incentive:

"*everything was paid up fairly promptly… no problems*"

- Overall satisfaction:

"*… last winter … the house was warm … it was a big difference … ….it was money well spent … I'm delighted!*"

Mr. Dunn was very happy in the end!

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General conclusions

- Sustainable energy projects have high potential to make positive changes in economic development of rural territories
- Grant support is necessary to make investments more attractive to citizens and mitigate potential price/performance risks
- Involvement of local companies - key in supporting economies of local communities

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Thank you!

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