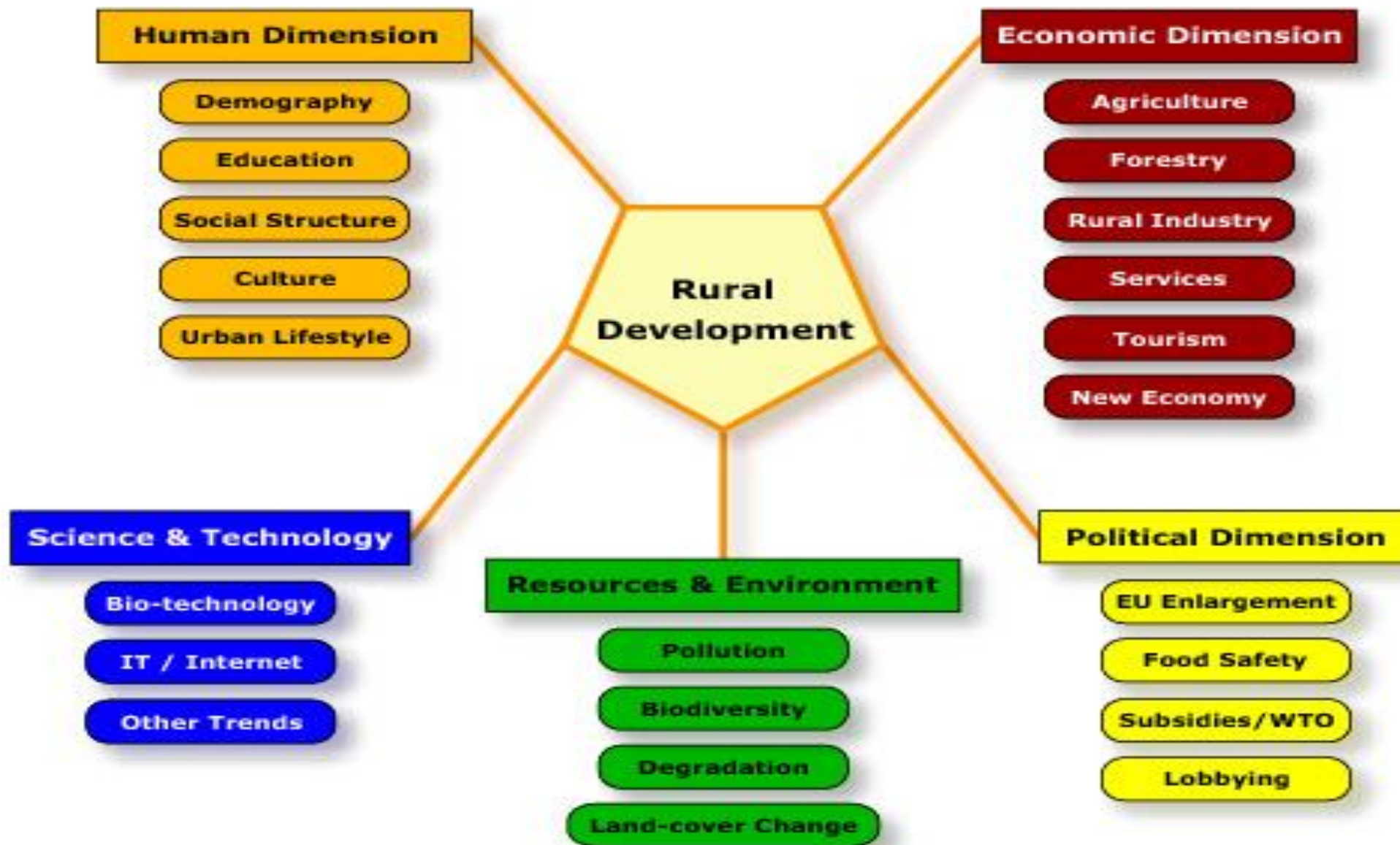


Best practices related to renewable energy and rural development

Dr. Csaba Patkós

30. 10. 2015.



The importance of RES in rural areas

- ▶ Incomes - taxes, source of extra income
- ▶ Workplaces - rather indirect way
- ▶ Innovations - ideas from outside give new local ideas
- ▶ Local capacities and stronger communities - learning and new institutions
- ▶ Cheap and local energy - could be one of the factors of economic development

Pro

- ▶ Good quality RES
- ▶ Relatively expensive energy resources
- ▶ Small grants
- ▶ RES can be integrated into local economy
- ▶ Good energy supply networks
- ▶ Support of local community
- ▶ RES can be integrated into local energy policy
- ▶ Modern technology
- ▶ Low ratio of utilization of RES
- ▶ Aim of RES policy is to create cheap energy

Contra

- ▶ Low quality RES
- ▶ Relatively cheap energy resources
- ▶ High grants
- ▶ RES can not be integrated into economy
- ▶ RES can not be supplied
- ▶ Protest of local community
- ▶ Modern technology
- ▶ High ratio of utilization of RES
- ▶ Focusing on workplace creation hinders the effectiveness of other sectors

What should be taken into account?

- ▶ RES strategy has to fit into local strategies
- ▶ Concentrate rather on natural and energy safe targets than economic
- ▶ To integrate RES into other branches (value chains)
- ▶ Support only the start of business, anyway it will not be cost-effective
- ▶ Conscious planning
- ▶ Utilization of long-term used technology
- ▶ To connect RES into integrated smart-grid energy systems
- ▶ Other sectors also need RES inputs
- ▶ Bottom-up project planning
- ▶ Involving of local people

Dutch best practice - - Hoonhorst



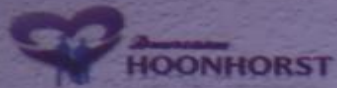
You can't do it on your own

government



citizen

business



Tips

- Keep it simple
- Find a mate
- Get going
- Have fun

“ Vaak bej te bange ! “

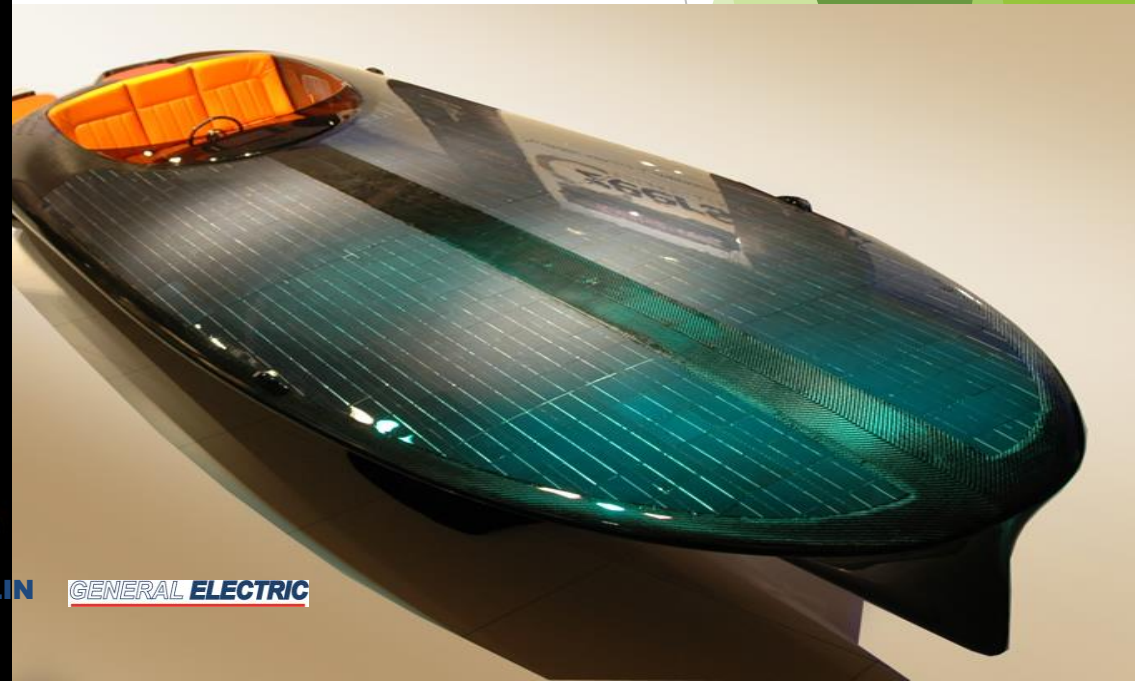
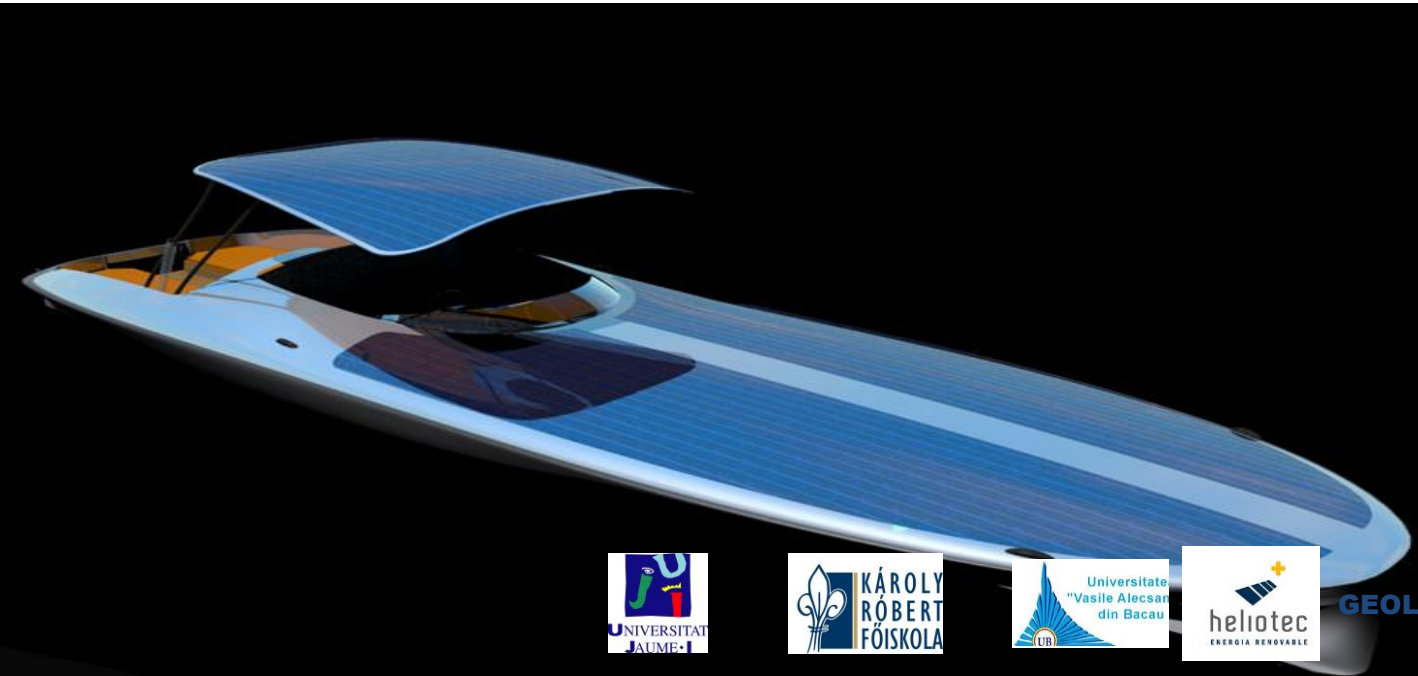
(en doe je te moeilijk)

*Mostly you're too scared
(and you're acting too difficult)*

Dutch best practice- FRYSLÂN

- ▶ Our dream for 2020: Quiet Fryslân. Fryslân is heading towards a new future. The use of fossil fuels in Fryslân has strongly been reduced. Citizens have joined the 'I Am Changing' movement. The citizens in Fryslân have all switched to new alternatives and new products. (...) The fastest solar boats are being built in Fryslân. This year, the 500th boat is being produced. It uses locally produced solar panels. People become quiet when they arrive in Fryslân. Fryslân has made the change!

- ▶ 6 days, 220 km- competition: Frisian Solar Challenge (FSC)
- ▶ NHL-KCJ - produce boats
- ▶ Business and innovation + promotion
- ▶ Czeers - start-up business



Cow Power, USA - Vermont



THE COW DOES ITS BUSINESS.


↓

THE MANURE IS COLLECTED AND STORED IN A LARGE CEMENT HOLDING TANK CALLED A DIGESTER.

THE REMAINING MANURE THEN GOES THROUGH A SEPARATOR. THE LIQUID IS USED TO FERTILIZE CROPS THAT BECOME COW FEED.




OMNOMNOM



≈≈≈ METHANE GAS ≈≈≈ ↓



IN THE DIGESTER THE MANURE SITS AT 101°F FOR 21 DAYS. METHANE GAS RISES TO THE TOP OF THE TANK.



A GENERATOR CONVERTS THE METHANE GAS INTO ELECTRICITY.

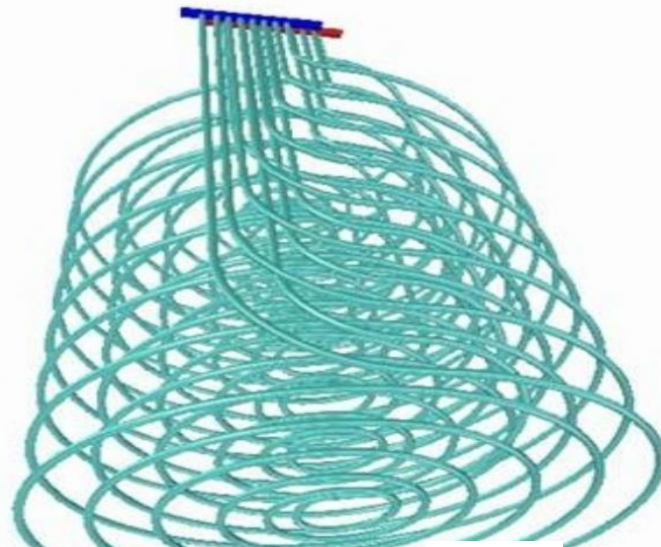
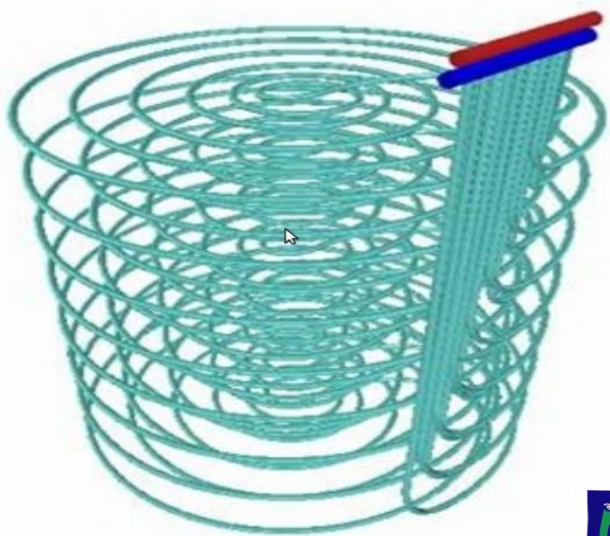
BY-PRODUCTS ↓

THE ELECTRICITY GOES TO THE GRID AND IS DISTRIBUTED THROUGHOUT THE COMMUNITY.



Egerszalók - biomass heating power plant

- ▶ Jean Pain's idea
- ▶ Different types of biomass without burning



Jó (?)példa - Erk

- ▶ 800 KW, 74,5 m, 48 m
- ▶ Energy need of 800 families per year
- ▶ But whose'



The new rural area - paradigm

	Old approach	Modern approach
Objectives	Equalisation, farm income, farm competitiveness	Competitiveness of rural areas, seeking value from local assets, exploiting unused resources
Key target sector	Agriculture	Various sectors (rural tourism, manufacturing, ICT industry, etc.)
Main tools	Subsidies	Investment
Key actors	National governments, farmers	All levels of government (supra-national, national, regional and local), various stakeholders (public, private, NGOs)

[Thank you for your attantion](#)

geolin@gmail.com