

Power to the People

Community Initiatives for Renewable Energies

Maarten Arentsen University of Twente



- Background:
 - Political science
- Research focus:
 - Change and innovation in energy supply
 - Sustainable energy
- Position:
 - Associate professor energy innovation

Overview social responsible innovation

- What I think it is
- Drivers
- Theoretical understanding
- Examples
- Conclusion

Social responsible innovation: what it is (1/2)

- Return to new ethics and morality next to rationality and efficiency?
 - renewed value articulation and realisation in the high tech society
- A reunion of the poet and the engineer in technological design?
 - Foucault 18^e century division:
 - Poet continued thinking about the ideal world



Engineer started designing the disciplined version of such a world

“Moral superiority of nature over technology”

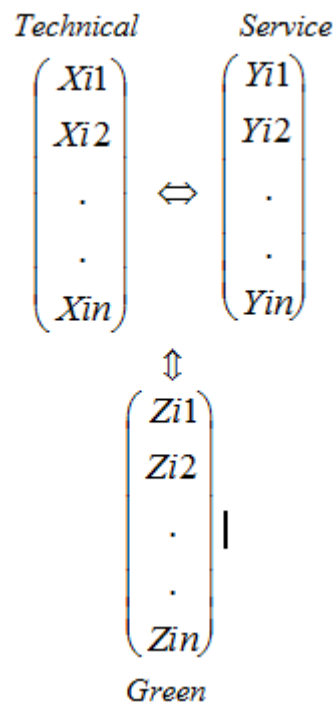
Langdon Winner *The Whale and the Reactor*

Arentsen/Fuchs In Need of a Poetic Engineer:

Amending Winner’s Position on the Controllability of Technology

Social responsible innovation: what it is (2/2)

- Values adding to technical and service characteristics of technology
 - Saviotti (1996) and amendment Arentsen/Dinica/Marquart (2001)



Characteristics of technology	Technical characteristics	Service characteristics	Green characteristics		Greenness of innovation
			Internal green	External green	
Level-characteristic changes	1. Yes/No	Yes/No	No	No	Neutral
	2. Yes	Yes/No	Yes	No	Incremental
	3. Yes/No	Yes	No	Yes	Incremental
	4. Yes	Yes	Yes	Yes	Incremental
Internal structure changes	5. Yes/No	Yes/No	No	No	Neutral
	6. Yes	Yes/No	Yes	No	Radical
	7. Yes/No	Yes	No	Yes	Radical
	8. Yes	Yes	Yes	Yes	Radical break-through

Social responsible innovation: Drivers (1/2)

- Political failure in problem solving:
 - Crisis of political legitimacy
- The upscaling of intergenerational concern:
 - sustainability as guiding principle
- Scale and scope of problems:
 - loss of controllability
- Financial reasons: local economy
 - Keep money spent at energy in region (Achteroeck, Lochem)
- In search for the meaning of life:
 - Doing good, being social

Social responsible innovation: Drivers (2/2)

- The failure of coordination?
 - **Hierarchy:**
 - Nuclear energy: Technology out of control
 - **Market:**
 - Financial crisis
 - Concentration
 - Marginal sustainable innovation (periphery)
 - **(Agency) network:**
 - Permissiveness
 - Ineffective

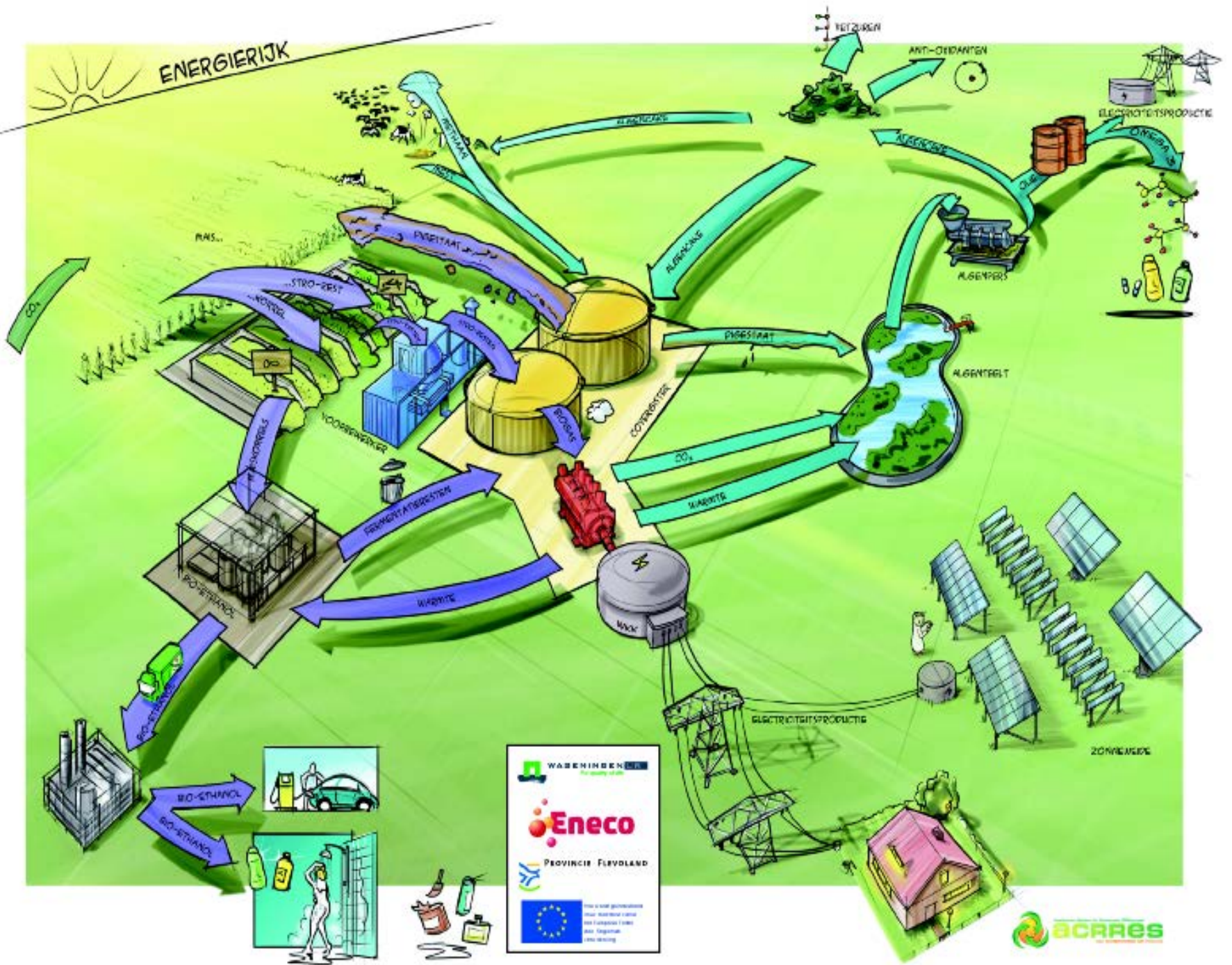
Social responsible innovation: Manifestation

- Revival of grass-root movement
 - Combination of moralism, autonomy and self-organisation
 - Past: anarchism, leftism, ecologists, anti-nuclear
 - Present: Small scale energy systems
 - » Autonomisation of problem perception and solution
 - » Morally guided design of own environment
- Neglectance incumbent technology and institutions:
 - **Localised technology**
 - **Self organisation**

Localized technology (1/2)



ENERGIERIJK



WARENINEN
The energy of life

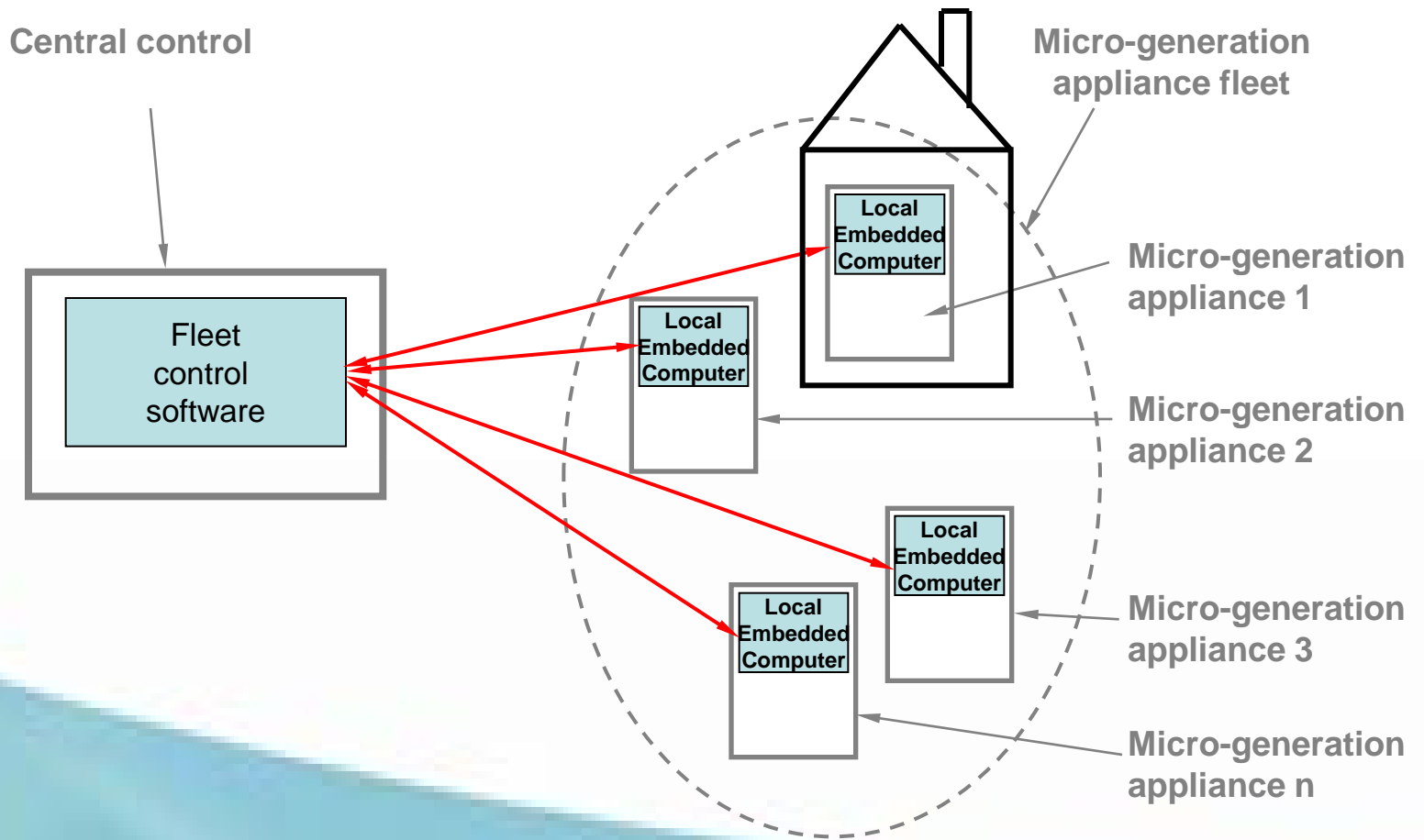
Eneco

PROVINCIE FLEVOLAND

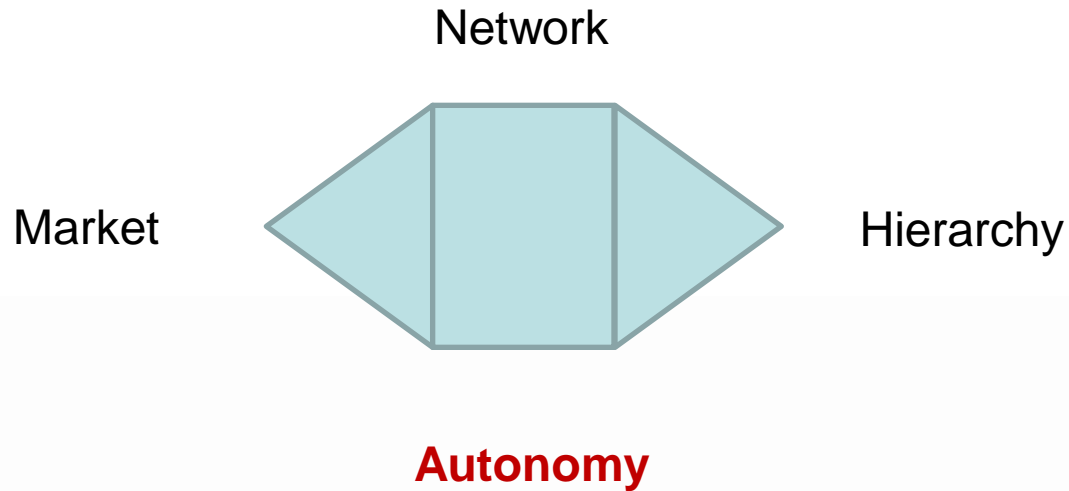
This is a joint production
of the European Union
and Flevoland
with support
from the EU

ACRES
The energy of life

Community technology



Beyond market and hierarchy



Action situation Rule based institutional setting

- Position rules (who takes part)
- Boundary rules (entry and exit rules)
- Scope rules (what type of outcome is at stake)
- Authority rules (Who does what)
- Aggregation rules (how to make decisions)
- Information rules (how to communicate)
- Pay-off rules (division of costs and benefits)

Action arena's and their defining rules

	<i>Markets (Structures inducing competition)</i>	<i>Networks (Structures inducing co-operation)</i>	<i>Hierarchy (Structures inducing authorization)</i>	<i>Autonomy (Structures inducing self organisation)</i>
Position rules	Property rights	Membership	Addressee	Residence
Boundary rules	Contracts	Voluntarism	Legalism	Membership
Scope rules	Private interest	Common interest	Public interest	Morality (Doing good)
Authority rules	Exchange	Communication	Submission	Devotion
Aggregation rules	Prices	Agreement	Directive	Community commitment
Information rules	Demand and supply	Cooperation	Legal restriction	New social media, community communication
Pay-off rules	Efficiency	Legitimacy	Effectiveness	Local harmony

A classification space

Technology

Localized

The independent localized
(mini) electricity system

PV project energy company

Institution

Autonomy

Integrated

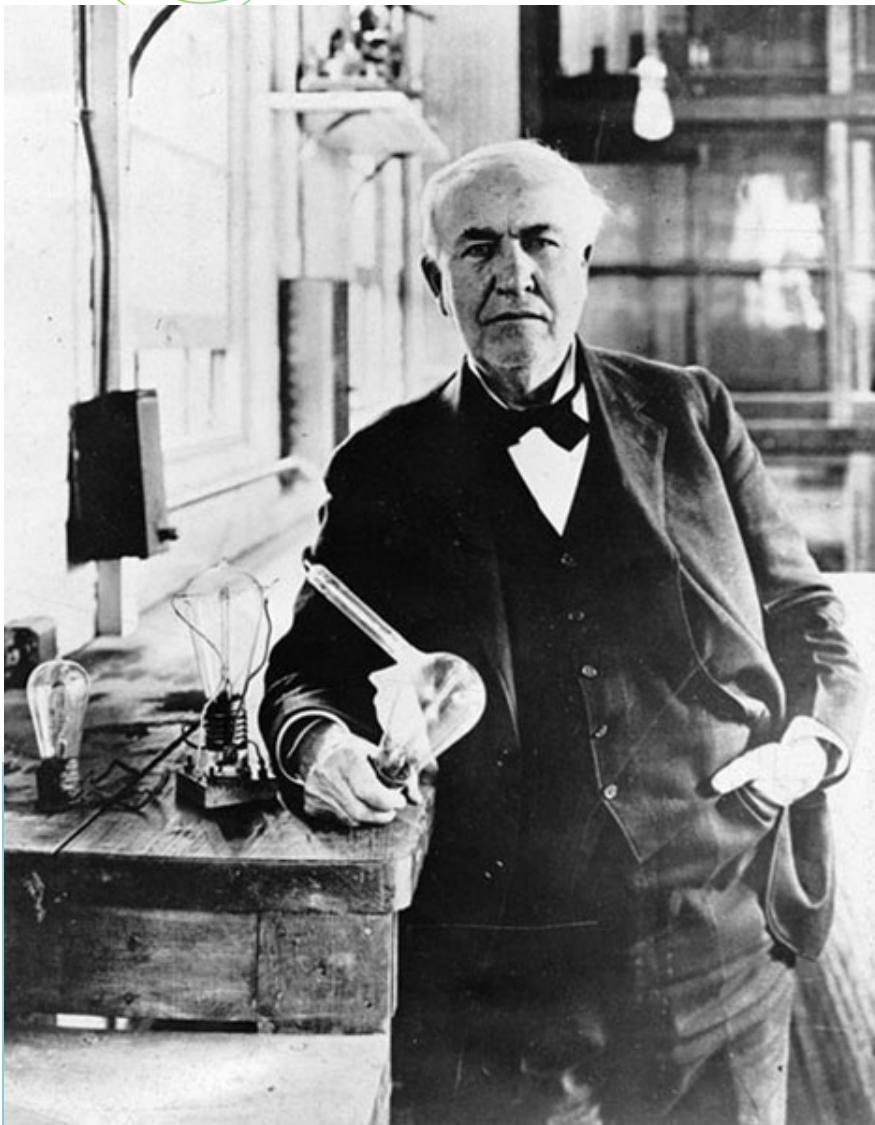
The local energy
association

Current situation

Centralized

“Doing good” initiatives in the EU

- AGENDA 21
- SEER I and II
- REGIONET
- PASTLLE
- BRIDGE
- SUME
- PLUREL
- SUSTAINFO
- URBAN MATRIX
- CONVENANT OF MAJORS
- EUROPEAN ENERGY AWARD
- CONCERTO
- C-CHANGE
- ASCCUE
- POLIS
- STATUS
- PACT
- GILDED
- EUROPEAN GREEN CAPITAL
- TRANSITION TOWNS



Where are we now 130 years later

- Then: Improvement quality of life
- Now: Improvement quality of life
- **Lessons of history?**

- Examples and Workshop

Thanks for your attention!

M.J.Arentsen@utwente.nl
