



How ETH-Domain contributes to Sustainable Development of Civil Society

From 2000 Watt Society to Eco-Energy Lifestyle

ISCN-GULF Conference
11th June 2009
Roland Stulz



Novatlantis as a Promotor of Transdisciplinary Science

Research



Research
Results

Pioneer Projects



Dialogue and
Implementation

Market

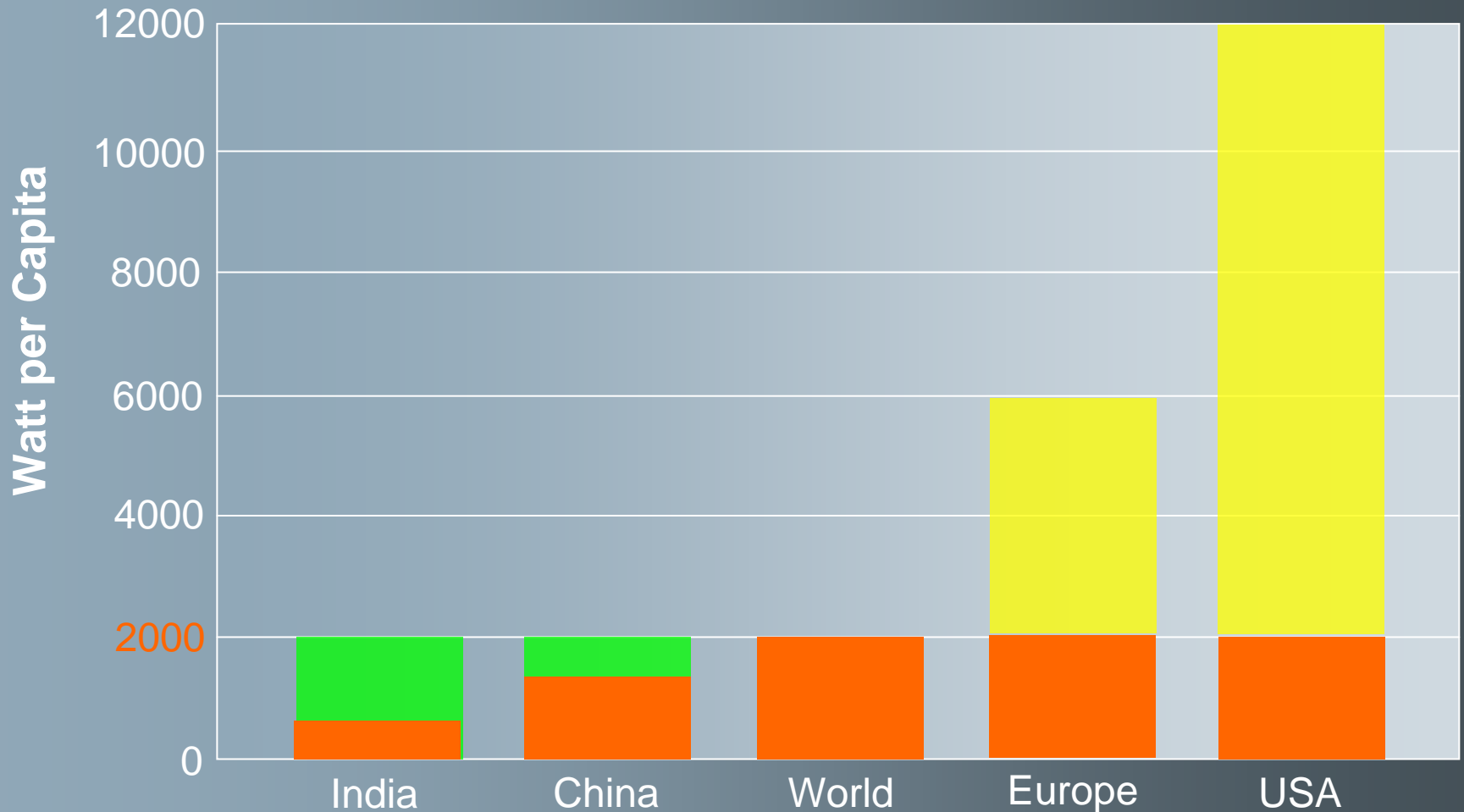
- Public Authorities
- Investors
- Media
- Politicians

Transfer

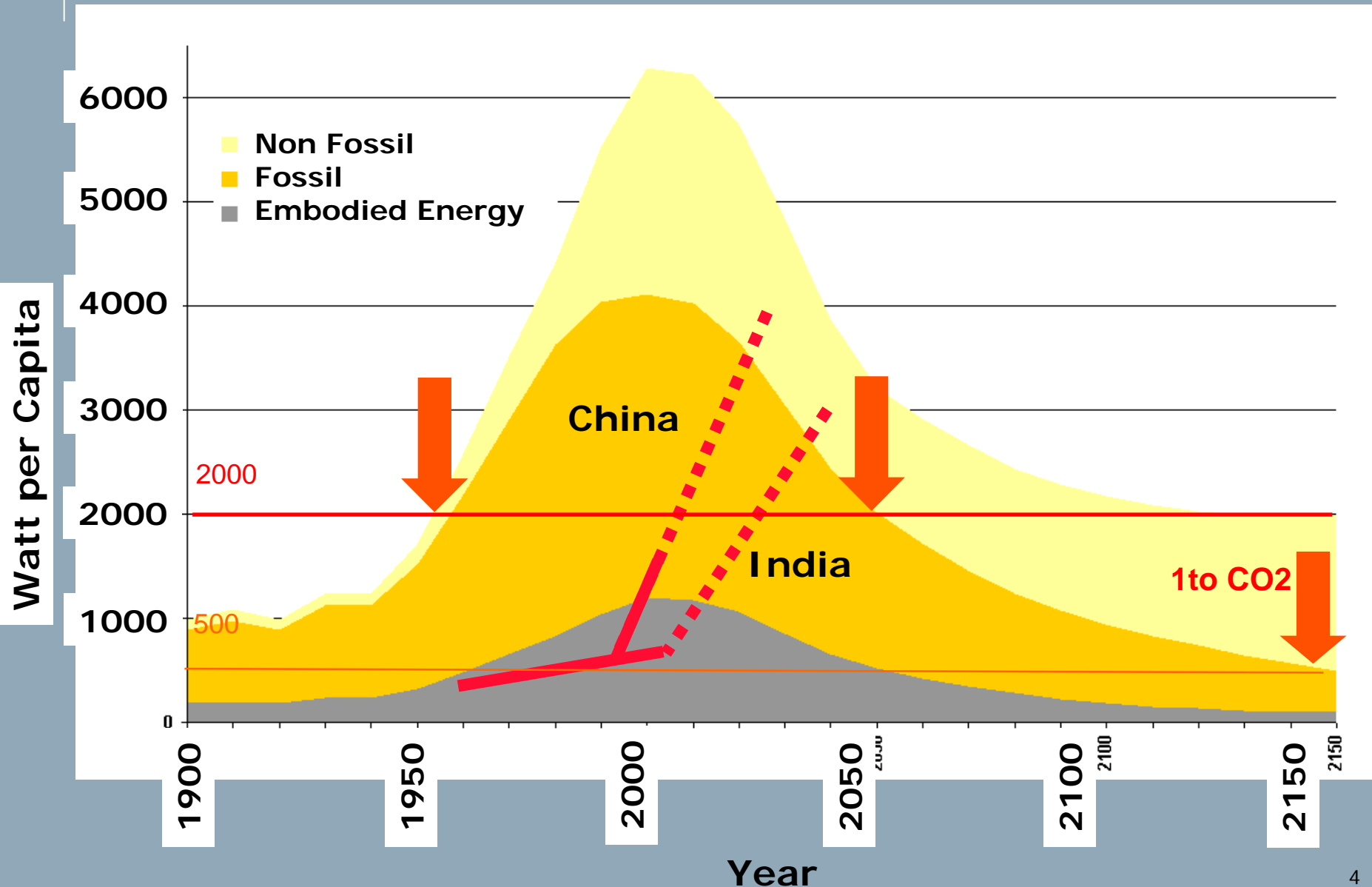
Pilot-
Projects

Industry

Fair Redistribution of Energy Resources: The 2000 Watt Society



An Ambitious Vision: 2000-Watt-Society



Factor Five Efficiency is Feasible

SUV
10 litres/100km
(Fossil Fuel)



Existing Buildings
10 litres oil/m²



Fossil Energy
(oil, gas, coal)



"Waste Society"
350 kg/year*person



2005



2050



Light Weight Mobility

2 litres/100km



Green Buildings

2 litres oil/m²

Renewable Energy
sun fuels

Closed Resource Cycles

Mission

The Novatlantis knowledge transfer program is based on:

- ➔ Design of an appropriate, ambitious energy vision and creation of landmarks
- ➔ Action on four levels: technical, economic, social (training), political
- ➔ Considering life cycle cost, not only investment cost
- ➔ Choosing best available technology: 'Negawatt' instead of Megawatt

ETH Contribution to Civil Society: Partnerships for Sustainability

Basel

2000-Watt
Novartis Campus

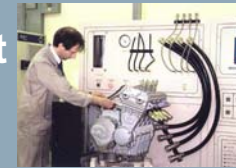


Zurich

Sustainable
ETH Sience City



Zero Carbon
EAWAG
Headquarter



Worlds cleanest
Diesel Truck
Engine

Zero Carbon
Hospital



Hy-Light
H2 concept car



CLEVER
Low Emission
Biogas car



Erlenmatt
2000-Watt
Housing



Geneva

Sustainable
Neighbourhoods



Health and
Happiness



Push & Pull Strategy



ETH
Domain

push
innovation
expertise
products



**push /
Implementation**

communication
motivation
PPP
landmarks



Energie
Schweiz

Cities /
Cantons

pull
opportunities
needs
trends

pull
analysis
seminars
networking
policy
marketing

Business

Pilot Region Basel: Bottom-Up Process



- Public Private Partnerships



- Transportation Laboratory



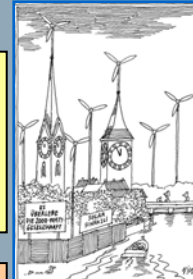
- Landmark Buildings
- Zero Energy Renovation Award (Minergie-P)
- Novatlantis Building Construction Forum
- Sustainable Neighborhood Forum

Regierungsrat des Kantons Basel-Stadt

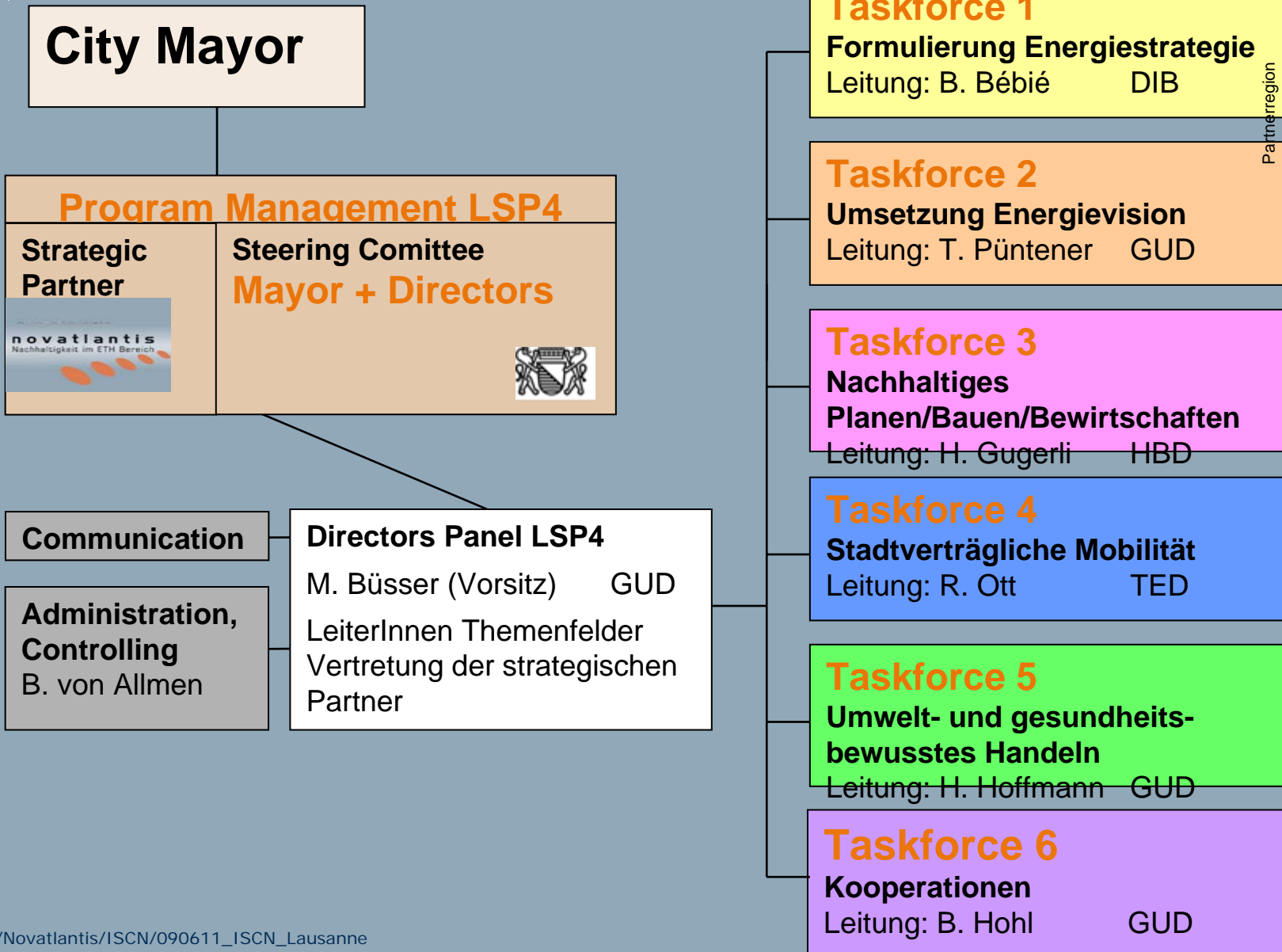
2008 - 2011

Politikplan

Partner Region Zürich: Top-Down Process



Zürich



LSP4 Projects in Zürich

× Strategy Paper 2000 Watt-Gesellschaft

× Action Plans

- Energy Efficiency
- Renewable Energies
- Efficient Electricity

× Energy Coaching

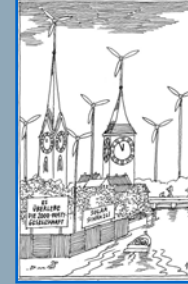
× Landmark Buildings



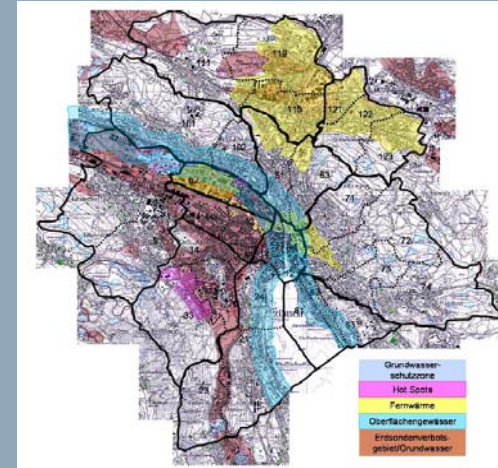
[1] Basis: econinvent-Datenbank 2.0



Partnerregion



Zürich

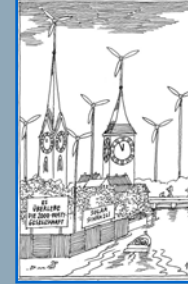


LSP4 Projects in Zürich

- × Public Procurement
- × Lifestyle Scenarios
- × Communication Handbook
- × Züricher 2000-Watt-Days
- × "Sportlich zum Sport"
- × LIFEfair
- × Eco-Businessplan for SME
- × Corporate Partnerships
- "Sustainable Zürich"

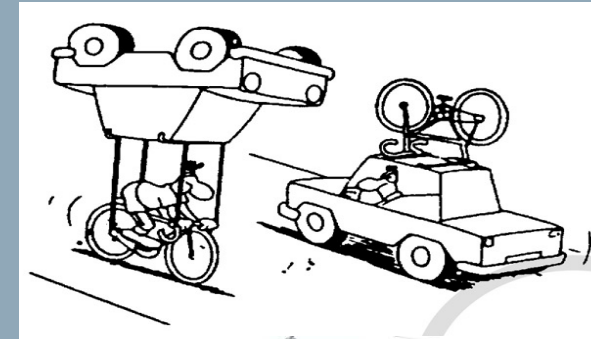
**Public Vote November 2008:
2000-Watt-Society integrated
in the Town Constitution
→ 77% voted YES**

Partnerregion



Zürich

novatlantis
Nachhaltigkeit im ETH Bereich



Energiestadt
europas energy award

energie schweiz

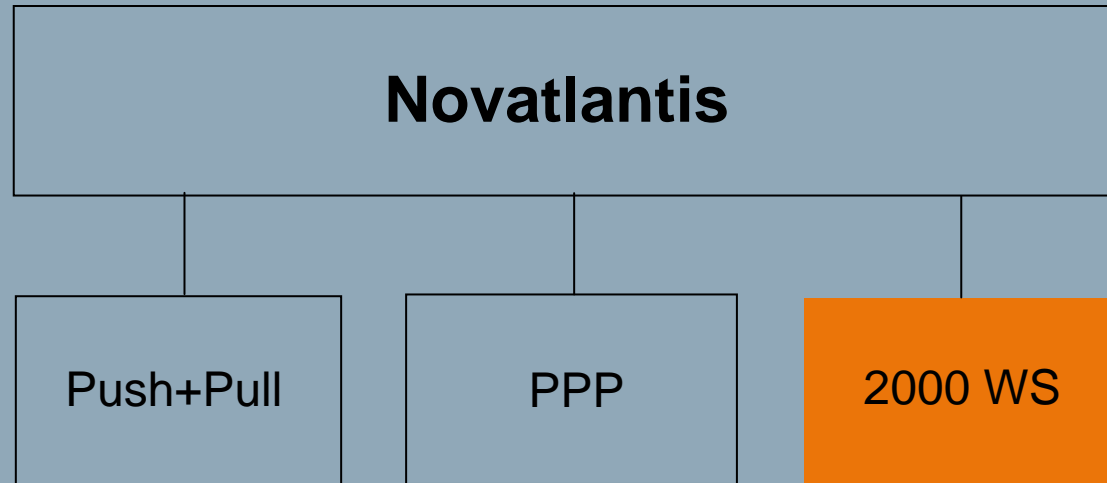
Energiestädte
auf dem Weg zur 2000-Watt-Gesellschaft

KG V

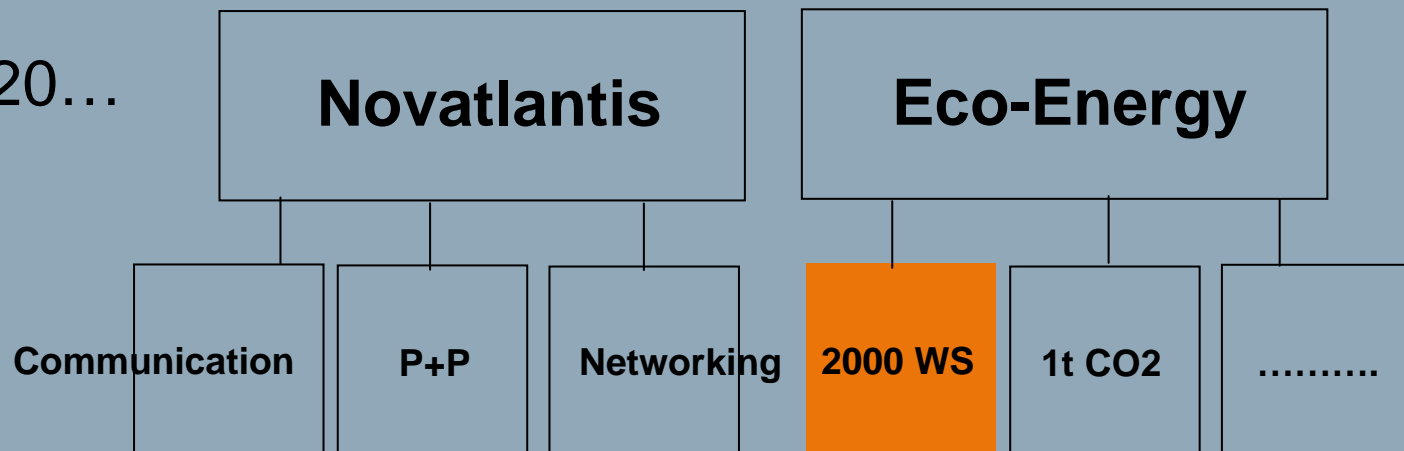
KANTONALER GEWERBEVERBAND ZÜRICH

Future Development of the 2000 Watt Society

2000-2009



2010-20...



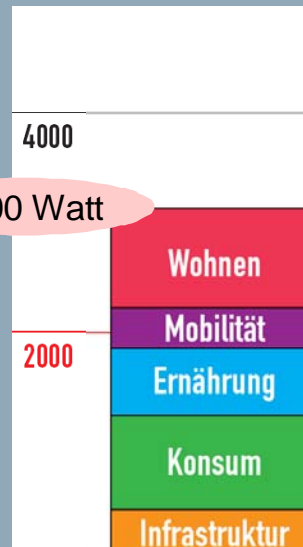
Lifestyle Scenarios: Galileo 2

Single, 28y, City

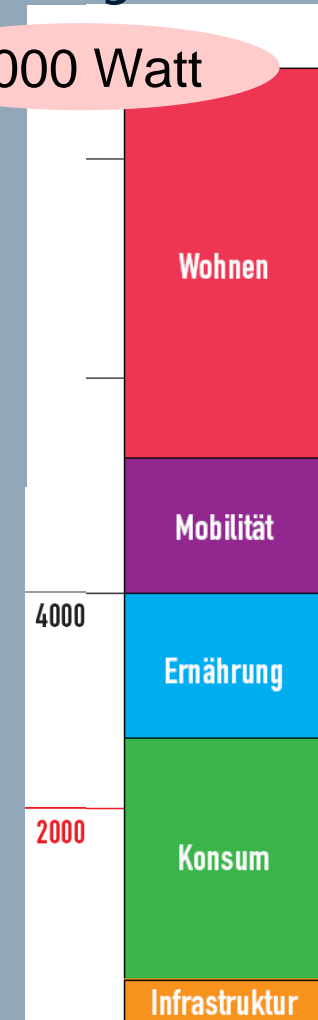
Pioneer Family, 2 Children, Suburb



3000 Watt



9000 Watt



Experience shows that Sustainable Development

- stimulates innovation
- offers market leadership opportunities for industry and service providers
- reduces dependency of imported resources



Thank you!

www.novatlantis.ch



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