

# Sustainable consumption and production – a European Perspective

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ISAP 2015, Yokohama, 28 and 29 July 2015



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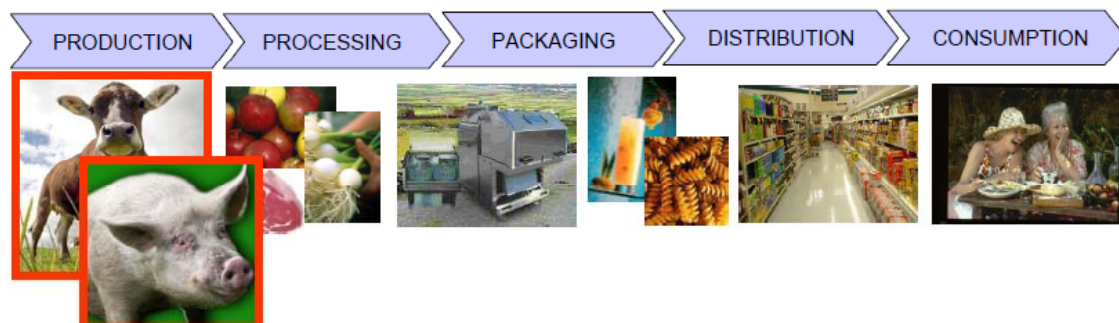
## Overview

- The EU and Sustainable Consumption and Production
- A vision on SCP and priorities for research
- Examples of past and ongoing SCP related research in the EU

# EU and SCP

- Long policy history
  - Waste (1980s) -> Products (1990s, 2000s) -> Consumption
  - 2008: SCP and Sustainable Industrial Policy Action Plan
  - 2011: Resource-efficiency roadmap
  - 2014: Communication: Towards a Circular Economy
  - 2015: Revision of resource-efficiency roadmap
- EU support for some major international programs
  - UN 10 Year Framework of Programs on SCP
  - UNEP International Resources Panel
  - SWITCH Asia and SWITCH Med
  - ..to help optimal use of the world's resources

## Priorities: look at the life cycle



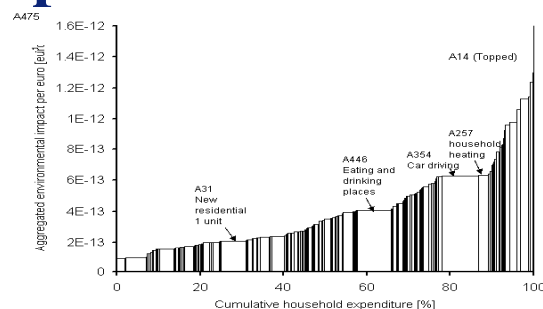
# What are the big issues?

- EIPRO (2006): 70-80% of impacts caused by consumption of
  - Food: meat, dairy
  - Mobility: car and air transport (20-25%)
  - Housing: heating, hot water and materials (>20%)
  - Energy using products: lighting, fridge, other electrical products (>10%)
  - Production: energy and agriculture

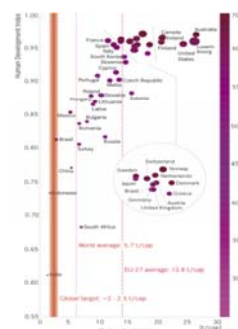
COICOP	Study	Dall et al.	Kok et al.	Labouze et al.	Nemry et al.	Nijdam and Wiltig	CEDA EU25
	Indicator	Energy	Energy	GWP	GWP	GWP	GWP
	Main approach	Bottom-up	Hybrid	Bottom-up	Bottom-up	IO	IO
CP01-02	Food	26,2%	13,0%	7,0%	NA	3,6%	31,0%
CP03	Clothing	1,3%	2,2%	3,3%	1,3%	6,5%	2,4%
CP04-05	Housing	40,8%	54,3%	58,8%	53,5%	33,4%	23,6%
CP06	Health		1,8%		0,3%	0,3%	1,6%
CP07	Transport	19,5%	18,3%	29,6%	32,9%	17,3%	18,5%
CP08	Communication			0,0%	2,9%	0,0%	2,1%
CP09	Recreation	7,2%	8,1%	0,0%		15,1%	6,0%
CP10	Education		1,8%			0,7%	0,5%
CP11	Restaurants					2,8%	9,1%
CP12	Miscellaneous	5,1%	0,4%	1,3%	5,4%	1,8%	5,2%
	TOTAL	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

# How can we reduce impacts?

- Reduction options
  - End of pipe
  - New production technology (50% -> Factor x)
  - Cleaner products (50% -> Factor x)
  - Shift spending to low-impact per Euro products (50%)
  - Spend less (50%)



Impact per Euro versus total consumption expenditure in EU25, 280 product categories



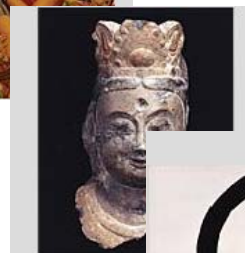
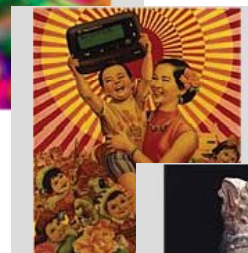
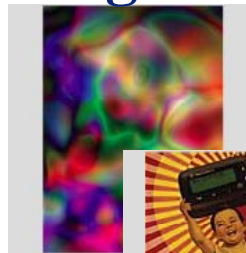
Carbon emissions per capita versus HDI per country

# A long history of research in the EU

- 2000s: EU FP5, 6, 7 projects like
  - SCORE
  - SPREAD, Sustainable Life styles 2050
  - ASCEE, Responder
- Many policy support studies
  - EIPRO
  - IMPRO
- International support programs
  - SWITCH Asia
  - SWITCH Med
  - Support of the 10 YFP SCP, UNEP IRP

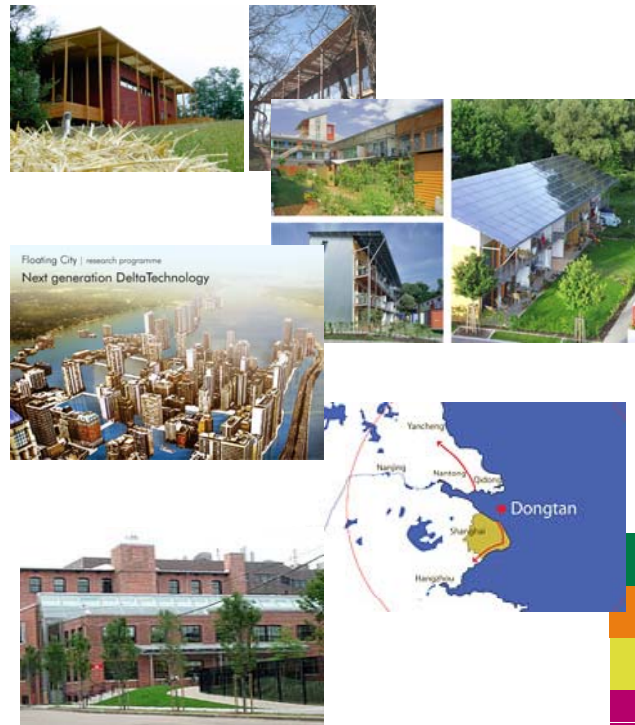
## Change consumption: general

- An economy beyond desire
- Re-invention of
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# Change consumption and products: Housing

- Solution strategies
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- Inspiring examples
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# Change consumption and products: Mobility

- Inspiring examples
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- Other
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- We still have to crack the code of travelling less



# Change consumption and products:

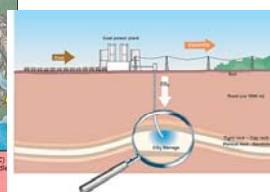
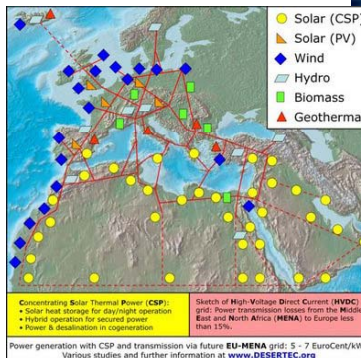
## Food

- Successes
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- But there are limits
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- So we need also...
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## Change production

- Energy: towards renewables
- Energy intensive sectors: CCS and lean product design
  - 
  -
- Agriculture and retail: limited meat, precision farmed, in season products



UTZ  
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Good inside

Sustainable Agriculture Initiative

### Thoughts for Food

**Marine Stewardship Council**  
The best environmental choice in seafood  
2009 Celebrating 10 years of partnership and progress



# Conclusions

- SCP and resource-efficiency programs
  - Essential for a stable, prosperous world under resource constraints
  - Therefore supported by the EU
- A large number of supportive programs fostering international collaboration
  - SWITCH Asia and SWITCH Med
  - Support for the UN 10 YFP on SCP and UNEP IRP
- Important priorities for research
  - Understanding footprints of consumption
  - Understanding systemic hindrances to change
  - Support practical examples in the field of housing, mobility, food, appliances and support understanding of sustainable business models and consumption



**Thanks for your attention!**



## Reserve slides

### Rationale for EU support for the SCP agenda

- My feeling is the following factors play a role
  - Policy makers on SCP and sustainability in the EU have a stronger position when backed by international agenda's
  - There is a genuine concern about emerging global resource constraints
    - Fast global economic growth
    - The EU has (like Japan) limited resources
    - Human history is a history of conflict over access to resources
    - It is preferable that all regions share the Earth's resources in a responsible, conflict-free manner
  - Therefore supporting an SCP and resource-efficiency agenda, also outside the EU, in the end will help the EU itself

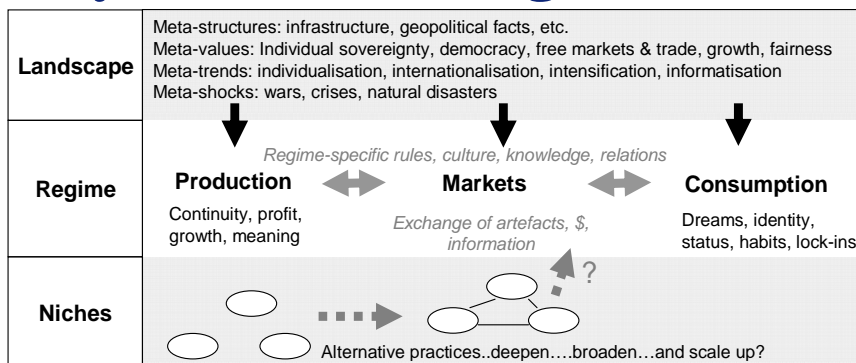


# How can we reduce impacts?

- Impact = Population x Affluence x Technical Efficiency
- The production – market – consumption chain provides the following intervention points

Production side <i>Eco-efficiency strategies</i>		-----	Consumption side <i>Sufficiency strategies</i>	
Mining and Production	Products and services	Use of products and services	Expenditure mix	Quality of life realised
<i>New technology and end of pipe</i>	<i>Greening products and service systems</i>	<i>Intensifying use ('PSS')</i>	<i>Enhancing immaterial consumption</i>	<i>Improving QoL/Euro spent</i>
<i>20-50% Factor X</i>	<i>20-50% Factor x</i>	<i>Factor 2</i>	<i>Factor 2</i>	<i>Factor 2-4</i>

## The systemic challenge



- **System**
  - 'Landscape': 'meta-'context (trends, values, structures) => gives that channel developments in regimes
  - 'Regime': mainstream production-consumption practices => due to interconnections form another source of inertia
  - 'Niches': alternative practices
- Policy should discern 'regime compliant' and 'long term' approaches