Impacts of EUPOPP Instrument Bundles: Comparing BAU and SC Scenarios

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eupopp stakeholder workshop
Brussels, Nov. 15, 2010

EUPOPP Scenarios

- Basic data for BAU and SC Scenarios

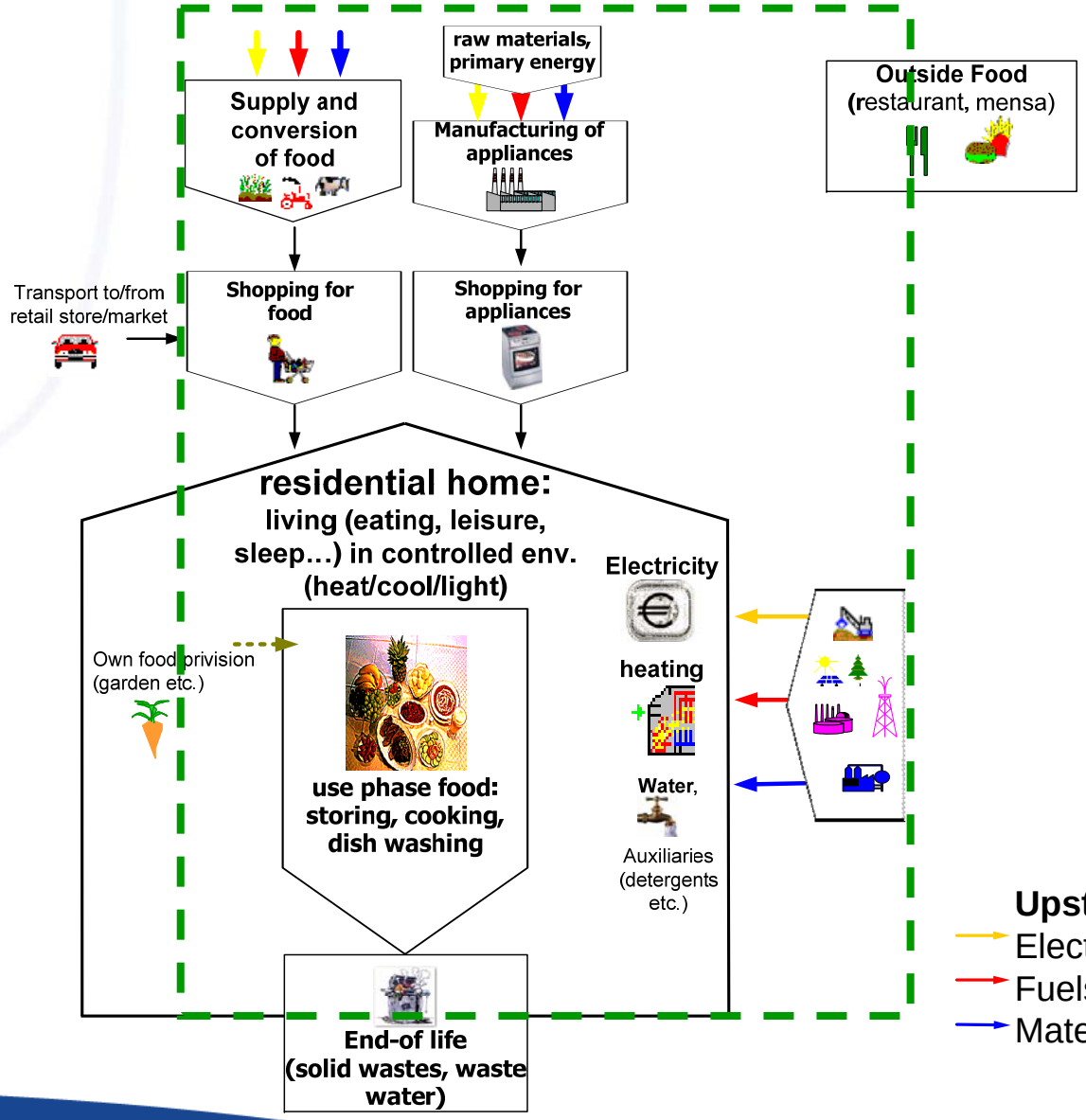
data for EU27	**2010**	**2030**
capita (million)	499	520
households (million)	217	241
household size (cap/HH)	2.3	2.2
household space (m^2/HH)	92	110

Source: PRIMES Reference Case (2010)

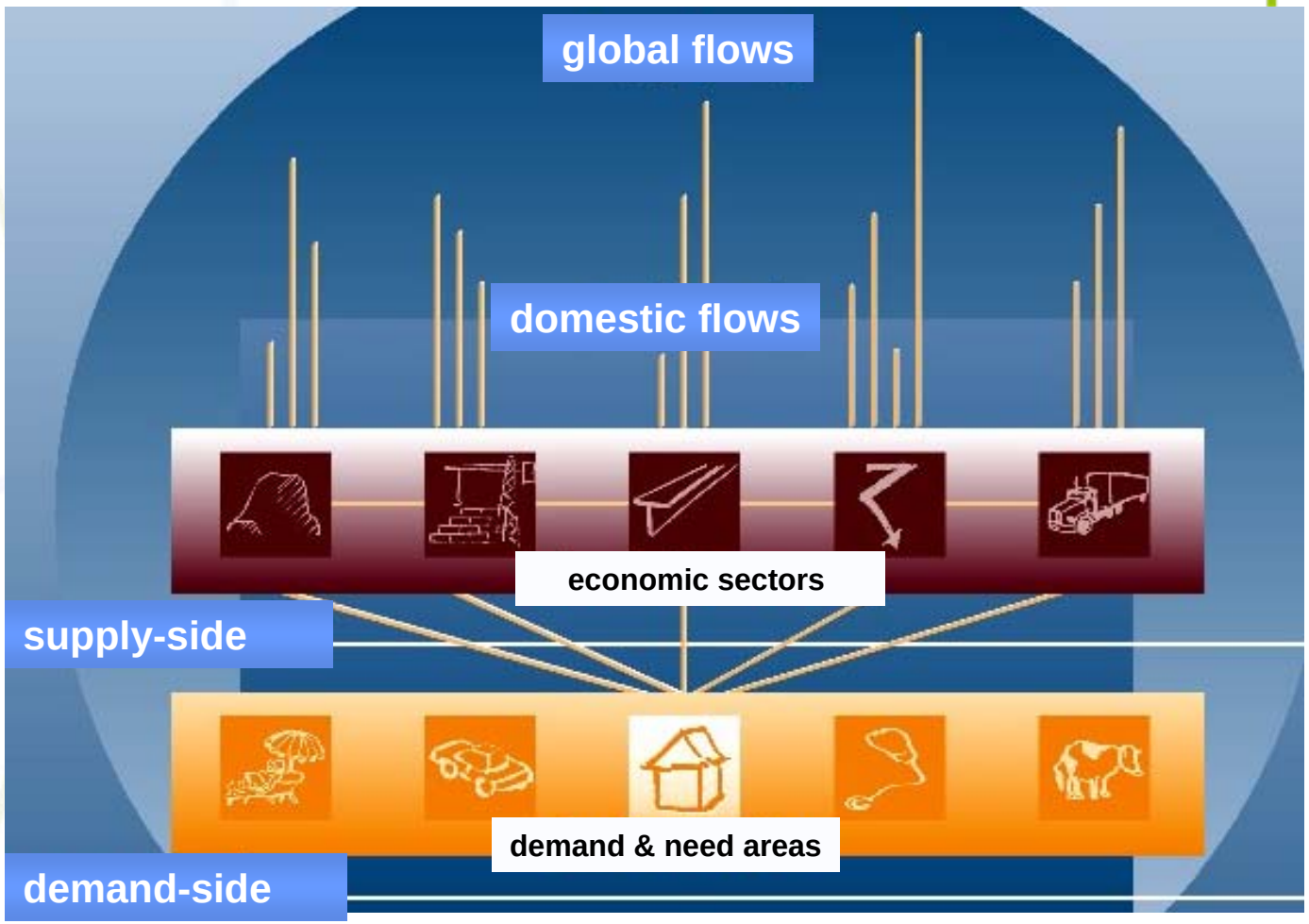
SC vs. BAU

- Impact of sustainable consumption (SC) instrument bundles determined by comparing SC scenario with BAU
- Impacts are relative (incremental) to BAU baseline, include rebound
- Comparison with 2005/2010 also possible, as well as analysis of individual instrument impacts

MFA System Boundaries



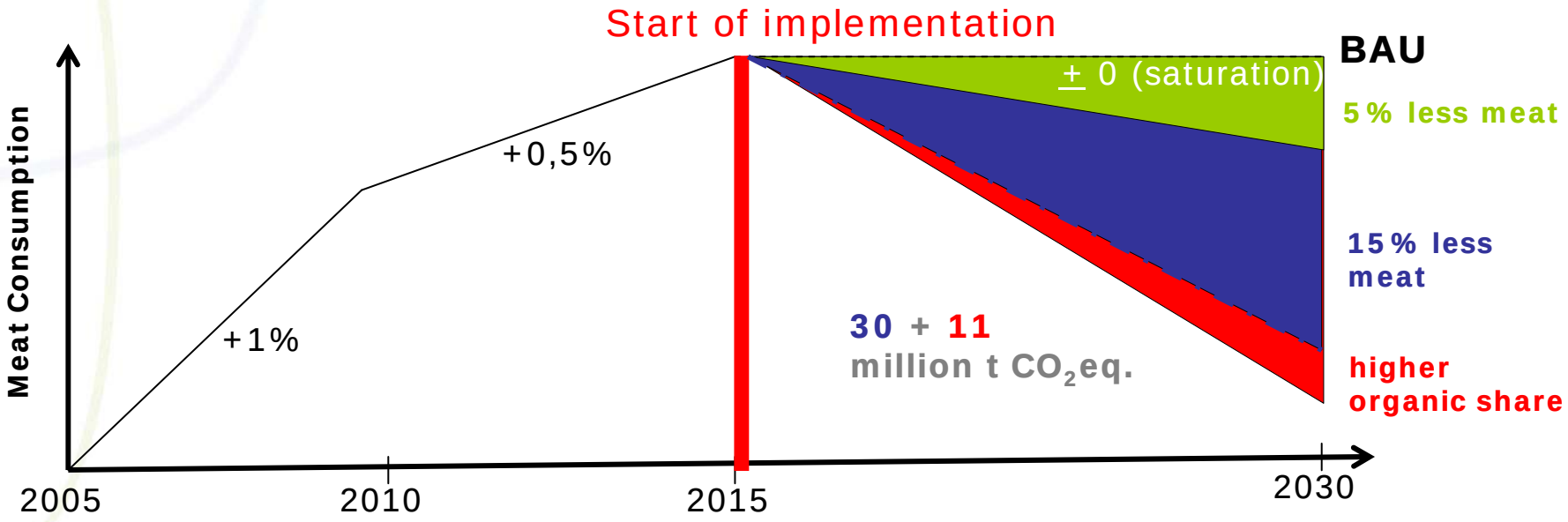
Local & Global Flows



Cross-sectoral and **cross-boarder** material & energy flows + transports: global interlinkages

Food: Impacts of Bundle

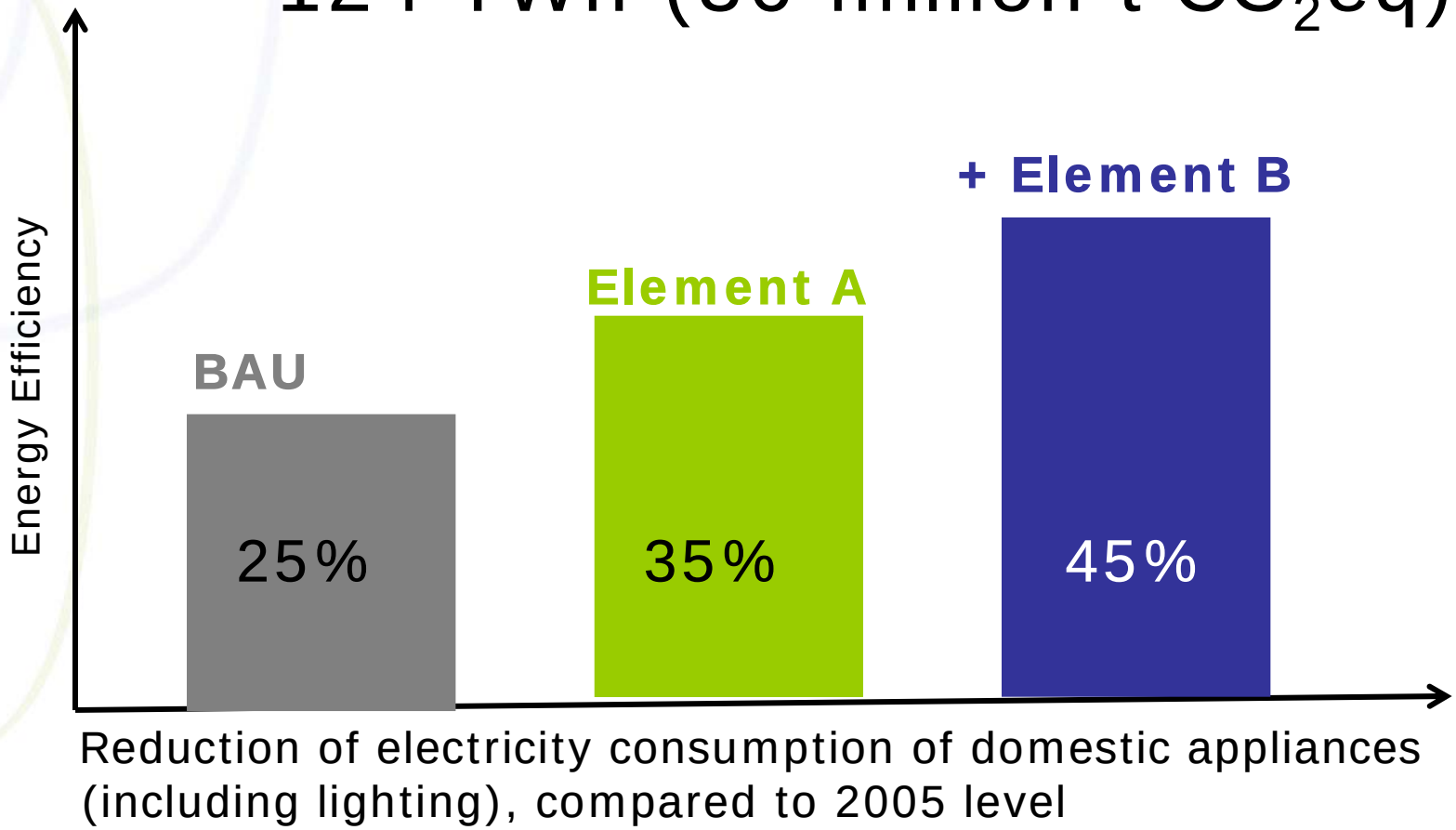
- first indication of impacts…



note: ongoing work on MFA data for fish & imports

Example Housing: Appliances Bundle

= - 124 TWh (36 million t CO_2eq)

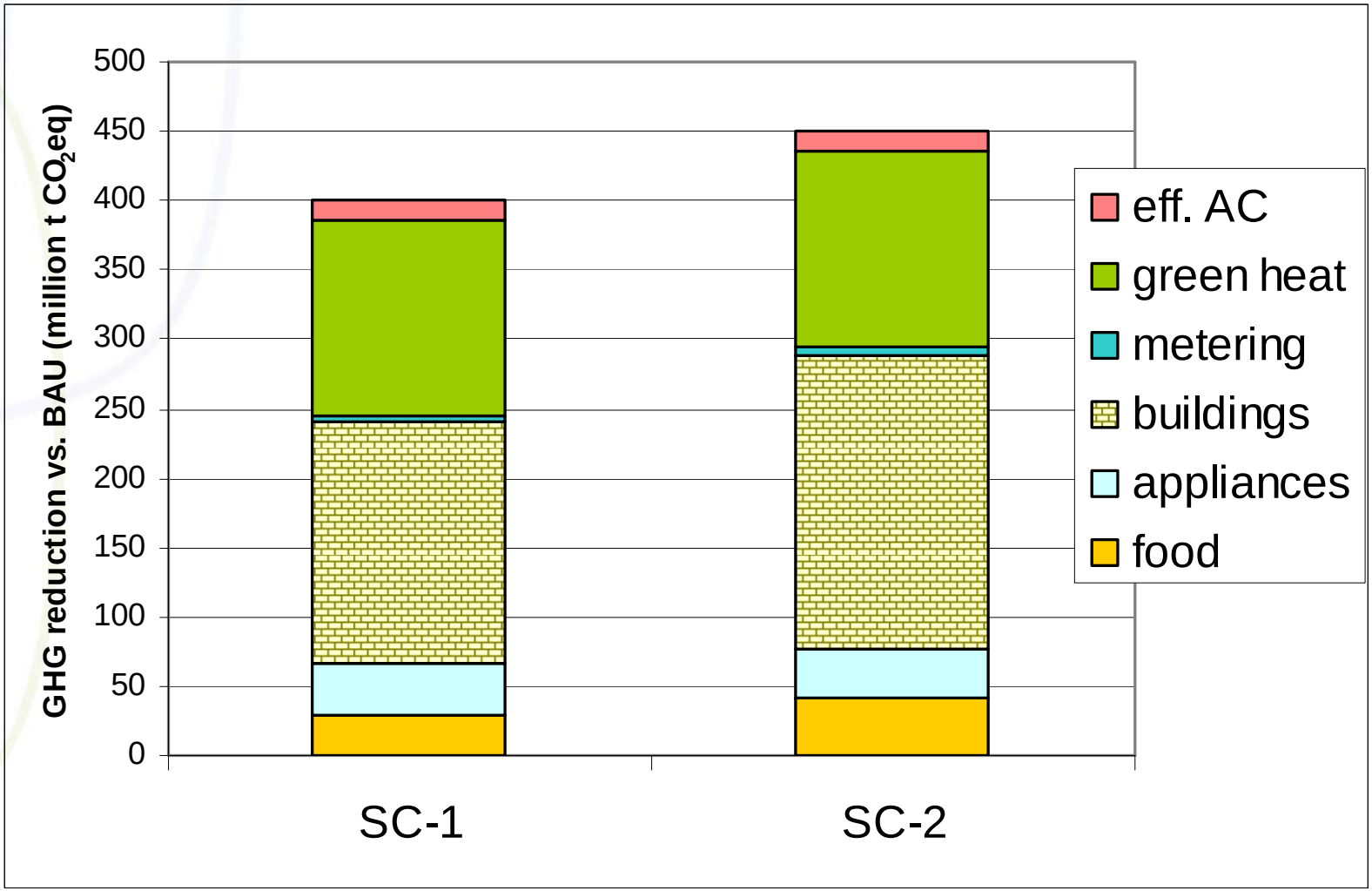


Impacts of **all** instruments (SC vs. BAU, year 2030)

	GHG savings SC vs. BAU, million t CO_2eq in 2030		
NEED AREA	**SC-1**	**SC-2**	**key instrument effects**
Food	**30**	**41**	
- sustainable diets	30	30	15% less meat
- more organic food		11	from 20% (BAU) to 40%
Housing	**371**	**409**	
- better appliances	36	36	approx. 20% better than BAU
- more buildings retrofits	173	173	retrofiting 2%/yr, 27.5% over BAU
- buildings (scrapping only)		38	oldest 8% of buildings scrapped
- individual metering	5	5	15% in 2/3 of central-heated flats EU12
- green heating quota	142	142	25% renewable heat quota by 2030
- more efficient AirCon	15	15	30% more efficiency over BAU
total GHG reduction	**401**	**450**	

SC-1 = sustainable consumption policy, moderate-high ambition
SC-2 = sustainable consumption policy, high ambition

Impacts of **all** instruments (SC vs. BAU, year 2030)

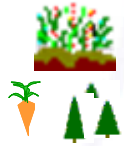
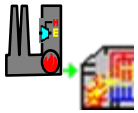


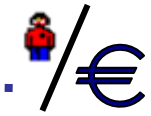
SC-1 = sustainable consumption policy, moderate-high ambition
SC-2 = sustainable consumption policy, high ambition

Further work of WP4

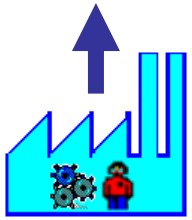
- Finalize SC scenario based on stakeholder feedback (SC-1 or SC-2, or more/less?)
- Further MFA-modeled impacts
  - air emissions (SO_2eq., PM_{10})
  - non-renewable resource use + land
  - costs and employment effects
- International dimension
  - *impacts from changes in imports*
- Qualitative impacts (biodiversity, social...)

Employment Flows

	process	direct	indirect*
	extraction/ harvesting		
	transport		
	processing, manufacturing		
	transport		
	use		



IO tables



manufacturing processes

*** = from investitment & operating (non-fuel) costs**

GEMIS Database