

# Smarter consumption in Europe



Almut Reichel  
Project Manager Sustainable Consumption  
and Production  
European Environment Agency

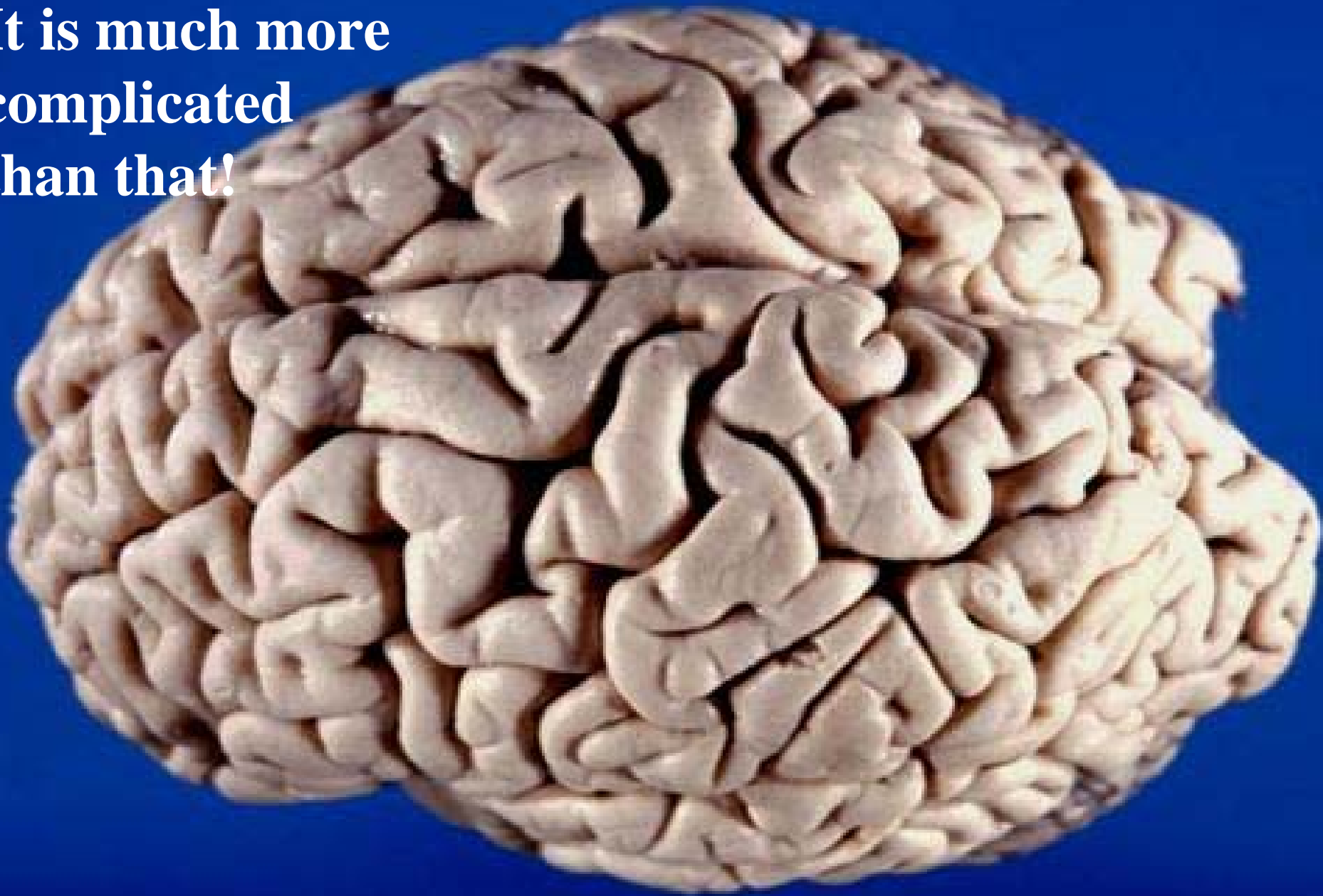


A photograph of a rocket launch at dusk. The rocket is on the left, ascending vertically with a large plume of white smoke and fire. The sky is a deep blue with a thin crescent moon visible in the upper right. The foreground shows the silhouettes of launch pad structures and utility poles against the bright, low sun.

**Achieving sustainable  
consumption is not  
rocket science...**



**It is much more  
complicated  
than that!**





1. European consumption is not sustainable and current trends make it even less sustainable
2. The global economic crises provides an opportunity to make long lasting changes in consumption
3. We are in the middle of a paradigm shift from production to consumption
4. The EEA can support actors in the triangle of change by building an evidence base



# Message 1

European consumption is not sustainable  
and many trends are pushing into an even  
less sustainable direction



Europeans consume



15 % of world energy production



Europeans consume



25 % of world paper production



Europeans consume

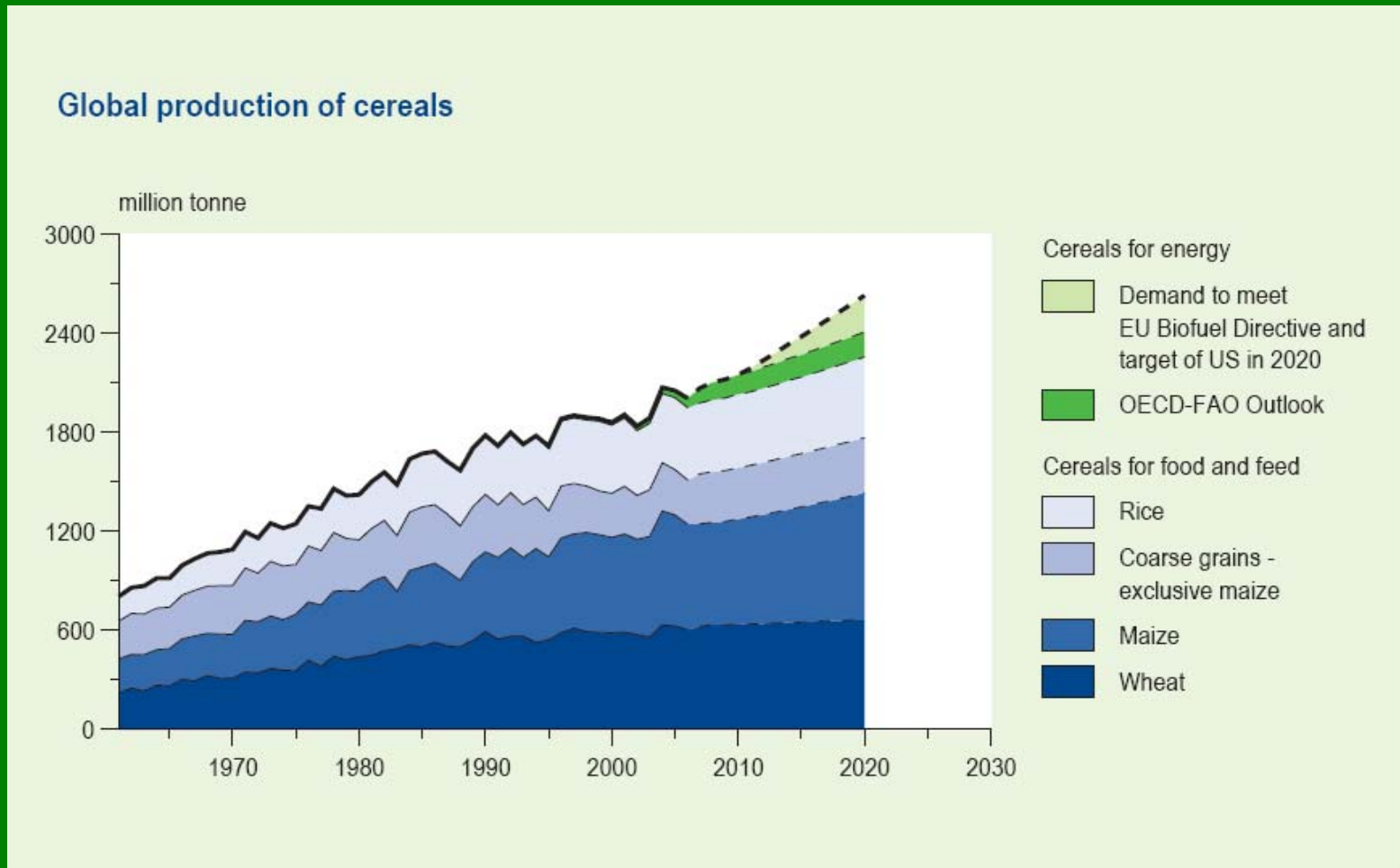


15 % of world meat production





# Increasing demand for food, feed, energy from biomass



**Figure 4.2 Global production of all cereal products from 1961 to 2020, including implementation of biofuel policies by the EU and US. Food and feed projection is based on OECD-FAO Outlook (2007).**

# Key trends: consumption and its effects on the environment

## Household expenditure was increasing until economic crisis

Expenditures on transport and communication, housing (including utility payments), recreation, health and education are growing the fastest. EU-10 consumption patterns are moving closer to those of EU-15.

Transport, housing and recreation have been identified to have very high environmental impacts. Growing expenditures in these categories cause potentially additional pressures on the environment.



## Growing consumption outweighs efficiency gains

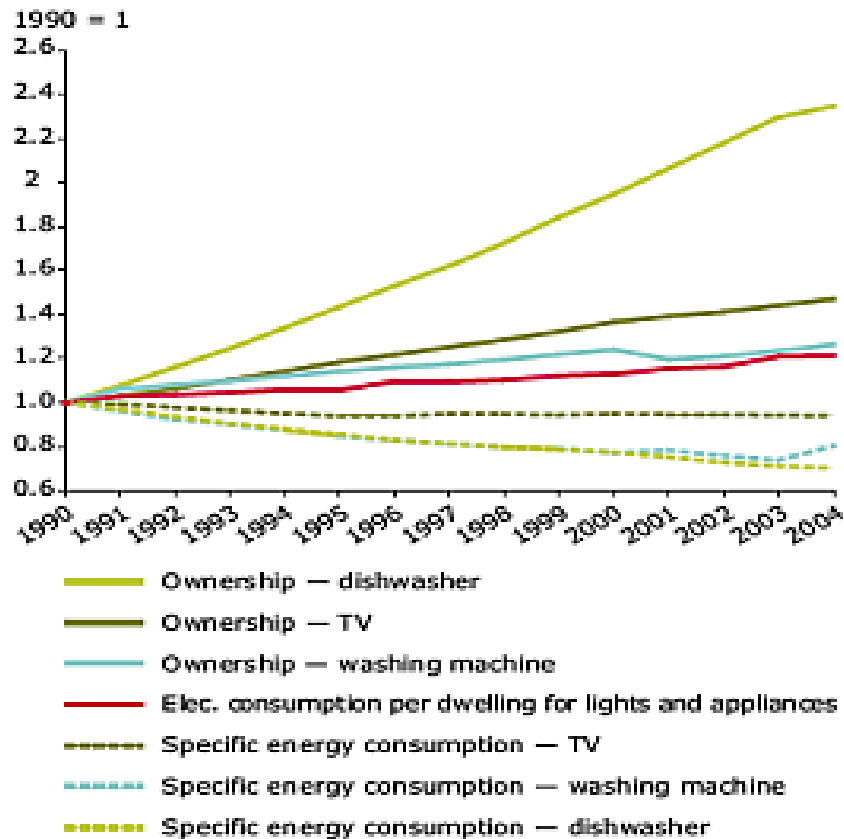
Despite efficiency improvements, the overall energy consumption of households is increasing in the EU, due partly to rebound effects (changes in behaviour in response to technological efficiency improvements and lower prices (EEA, 2007)).

Growing energy consumption has the potential to enhance emissions of air pollutants, greenhouse gases etc.



# Consumption growth has outweighed efficiency gains

**Figure 6.15** Trends in energy efficiency, ownership, and overall electricity consumption of selected household appliances, EU-15



Source: Enerdata, 2006.

- Dishwashers, TVs and washing machines are much more efficient than 15 years ago, (dotted lines) but...
- the numbers in use have increased significantly (solid lines)
- Hence, higher electricity consumption (red line)

Source: Europe's environment – the fourth assessment (EEA, 2007)



# Key trends: consumption and its effects on the environment

## Growing demand for housing space

Demand for housing space is growing due to reduced number of persons per household, more households and increasing space demanded per person (Wilson & Boehland 2005).

Pressures and impacts: generally higher energy use for heating, acceleration of urban sprawl



## Increasing personal mobility

Over the past 50 years the number of vehicles worldwide increased from 50 million cars to about 700 million (EU-UNEP, 2005). Every year 4.3 million extra cars are added to Europe's roads (EurActiv, 2007).

Pressures and impacts: increasing fuel consumption, CO2 emissions, air pollution, noise, deteriorating quality of life in cities etc.



## Increasing demand for high-impact processed food

There has been increasing demand for processed and imported food, individual portions and packaging (EEA, 2005).

Pressures and impacts: e.g. higher carbon footprint of food



## Message 2

The global economic crises provides an opportunity to make long lasting changes in consumption



# The economic crisis and SCP

## Some problems

- Growth and jobs before environment
- Difficult to agree on policies and targets
- Less available for private sustainable investments
- Consumers incentive to buy cheap goods and services

## Some opportunities

- Prices – become more important. Opportunities for green tax reforms.
- Opportunities to redirect investments (public and private) towards sustainable technology
- Pressures to rethink balance between market and regulation
- Increased need for business to focus on resource efficiency
- Window of opportunity for long-lasting change in behaviour



# Message 3

We are in the middle of a paradigm shift from production to consumption



# Paradigm shift

Past

Reduce environmental pressures from **production** in Europe

Protect **Europe's** Environment

**Technology** is solution

**Public** authorities responsible

Future

Reduce global life-cycle environmental pressures from our **consumption**

Protect the **global** environment

Technology **AND** **behaviour** is solution

Shared responsibility in **triangle of change**





# Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan

Smarter consumption and better products

- Eco-design Directive: Extension
- Labelling: Revise Ecolabel and Energy Labelling
- Incentives: Public procurement
- Consistent data and methods on products
- Promote GPP: Communication
- Work with retailers and consumers: Retail Forum

Leaner production

- Boosting resource efficiency
- Supporting eco-innovation
- Enhancing the environmental potential of industry: Revise EMAS regulation; help SMEs

Global markets

- International initiatives

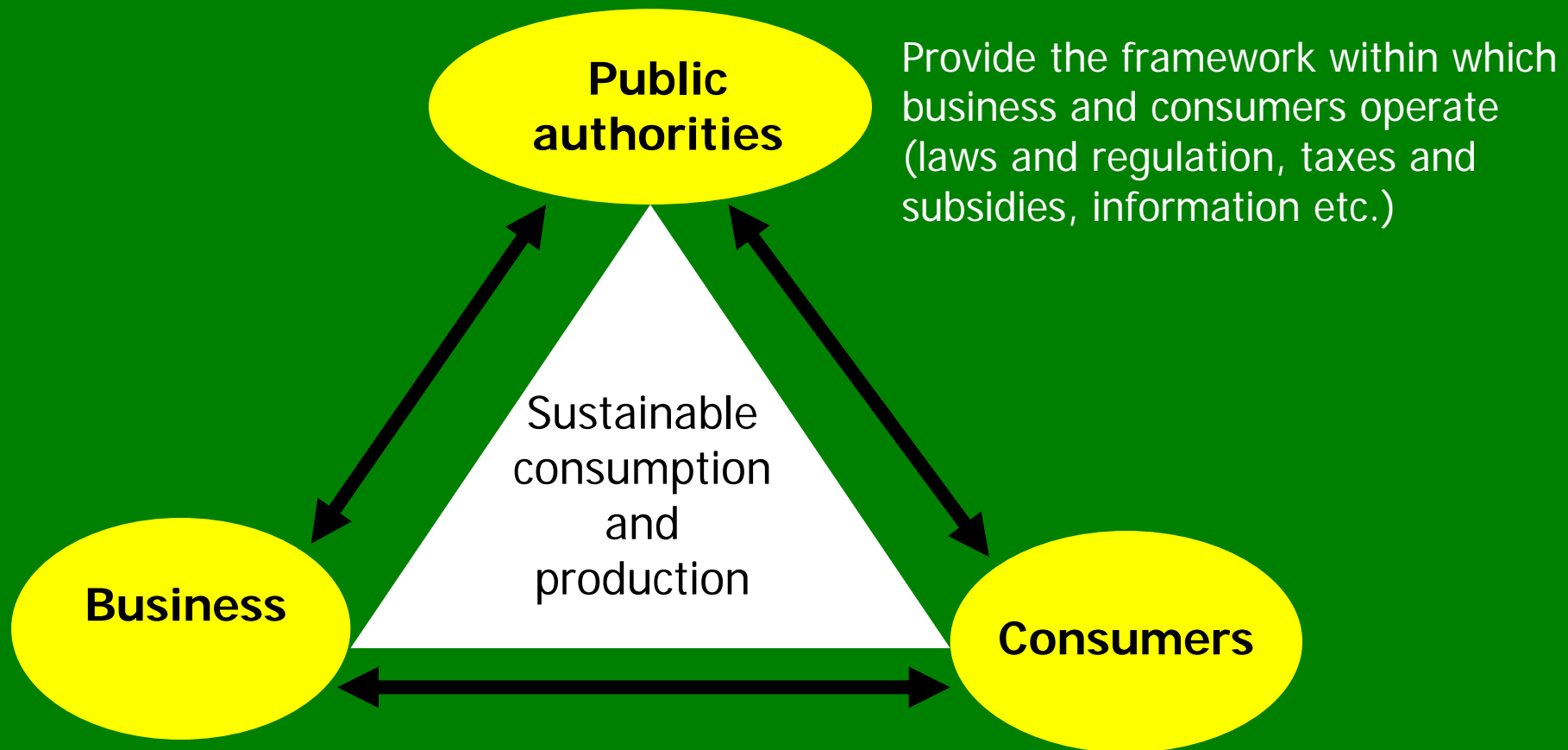


# Message 3

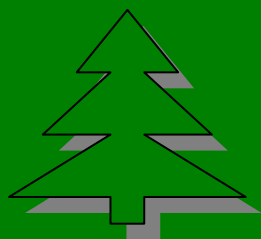
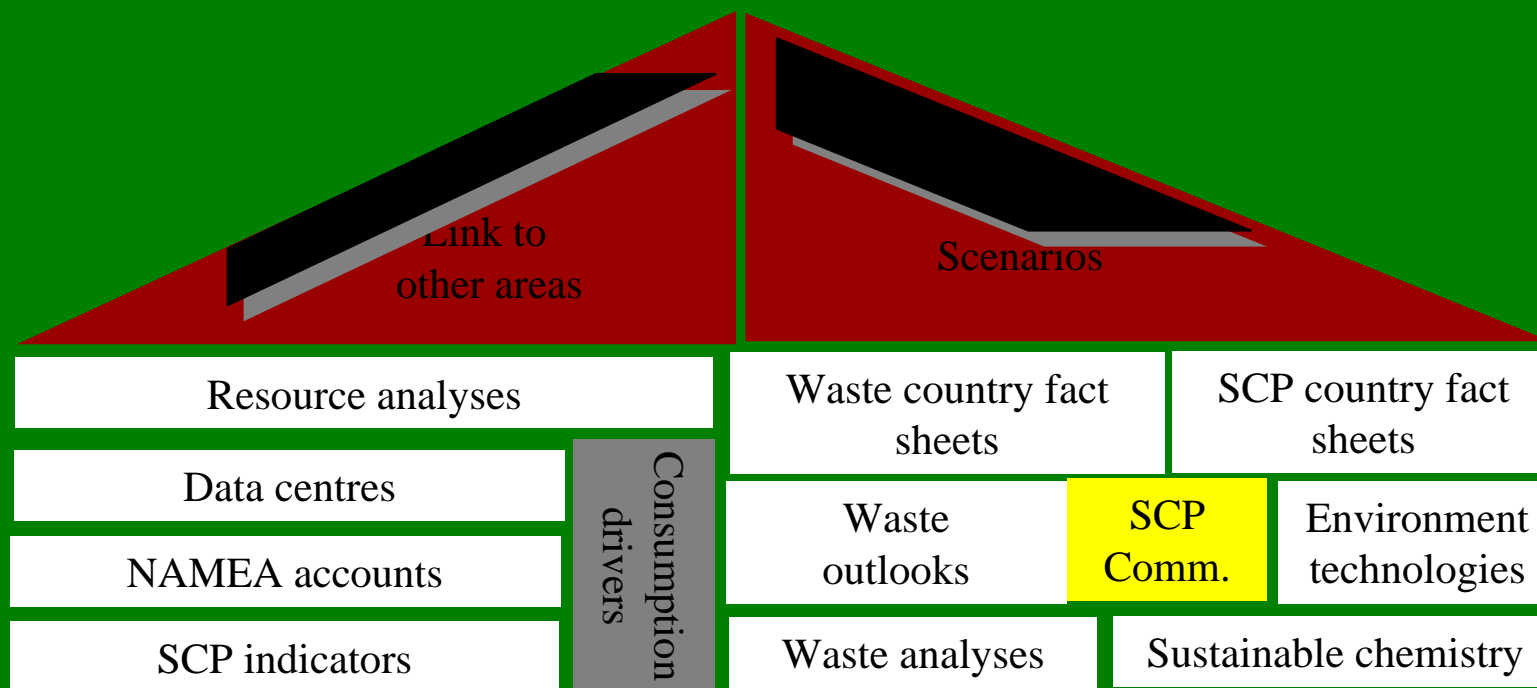
The EEA can support actors in the triangle of change by building an evidence base: Example NAMEA accounts



# Opportunities in the triangle of change



# The EEA building blocks



# Example: Our NAMEA project

## National Accounts (NA-)



Since 1950s

### Indicators:

- GDP
- Production value
- Value added
- Imports/exports
- Consumption expenditure etc.

- Time series: EU-25: 1995-2004;  
.EU-8: 1995 & 2000, 2005 forthcoming

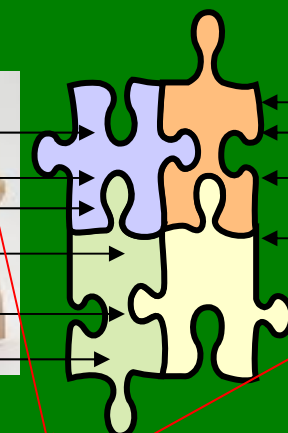
## Environmental Accounts (-EA)



Being developed based on  
environmental data

### Indicators

- Global Warming Potential: CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>
- Acidification Potential: SO<sub>x</sub>, NO<sub>x</sub>, NH<sub>3</sub>
- Tropospheric Ozone Formation Potential NO<sub>x</sub>, NMVOC, CO, CH<sub>4</sub>
- Domestic Extraction Used (DEU)

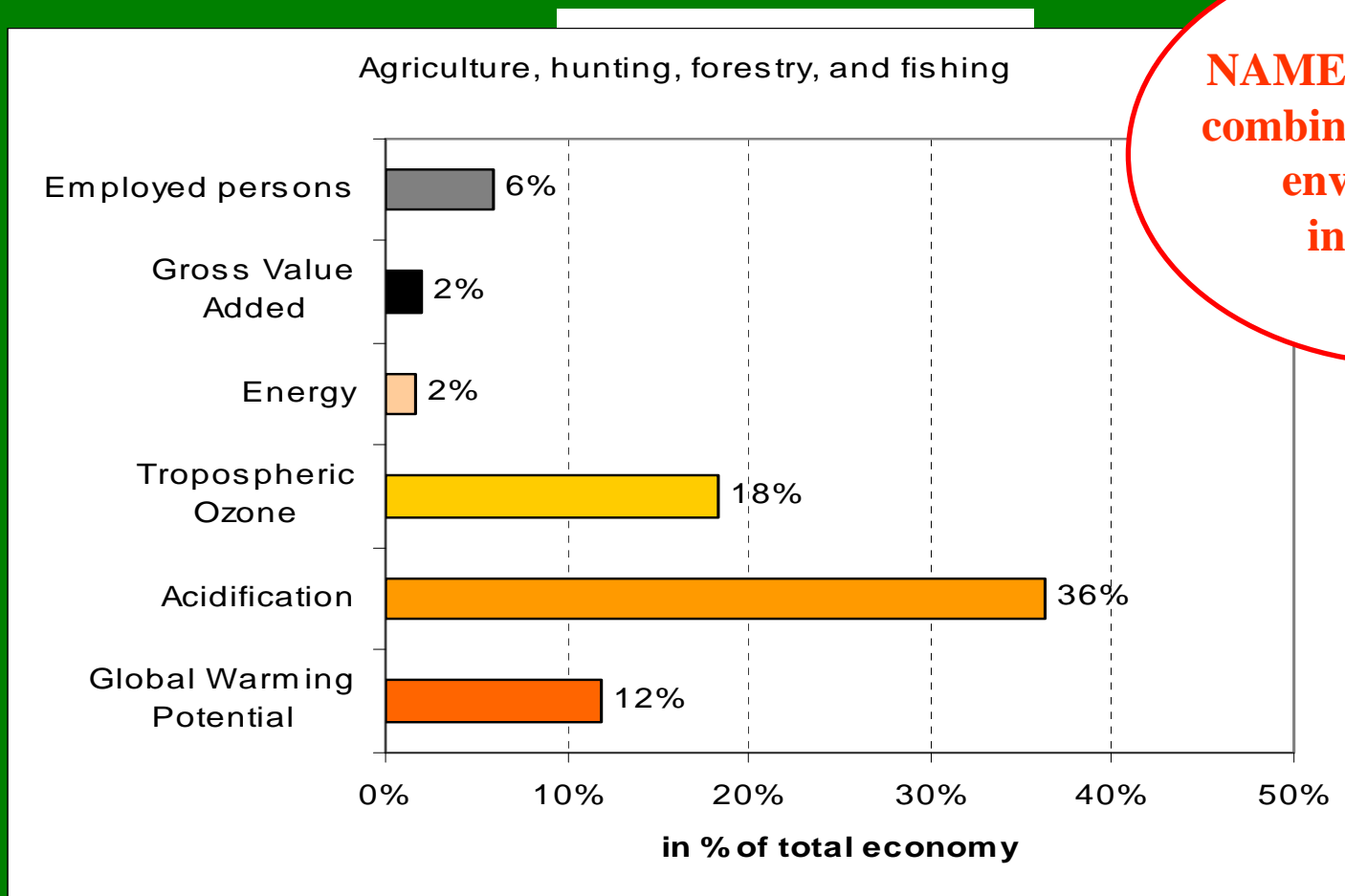


## Matrix

(based on  
input-output  
analyses)



# Production perspective – focus on sectors (EU25, 2004)



**NAMEA added value:  
combine economic and  
environmental  
information**



# Example of consumption perspective: Food

## Consumption of food and drink in Europe



Food waste

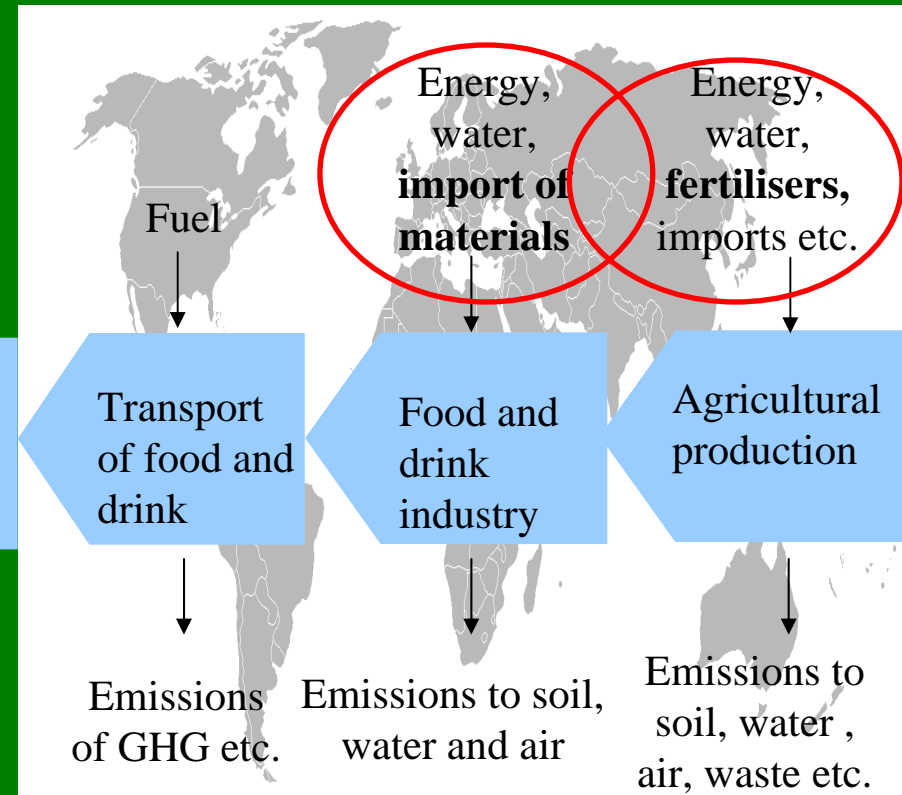
Food storage and preparation

retailers

Emissions to soil, water and air

Emissions of GHG, waste etc.

Emissions of GHG, waste etc.



**GLOBAL environmental and climate pressures from consumption**



# Consumption perspective

**18 % of GHG emissions**

**23 % of material use**



**29 % of GHG emissions**

**32 % of material use**



**19 % of GHG emissions**

**7 % of material use**



SCP  
priority  
areas



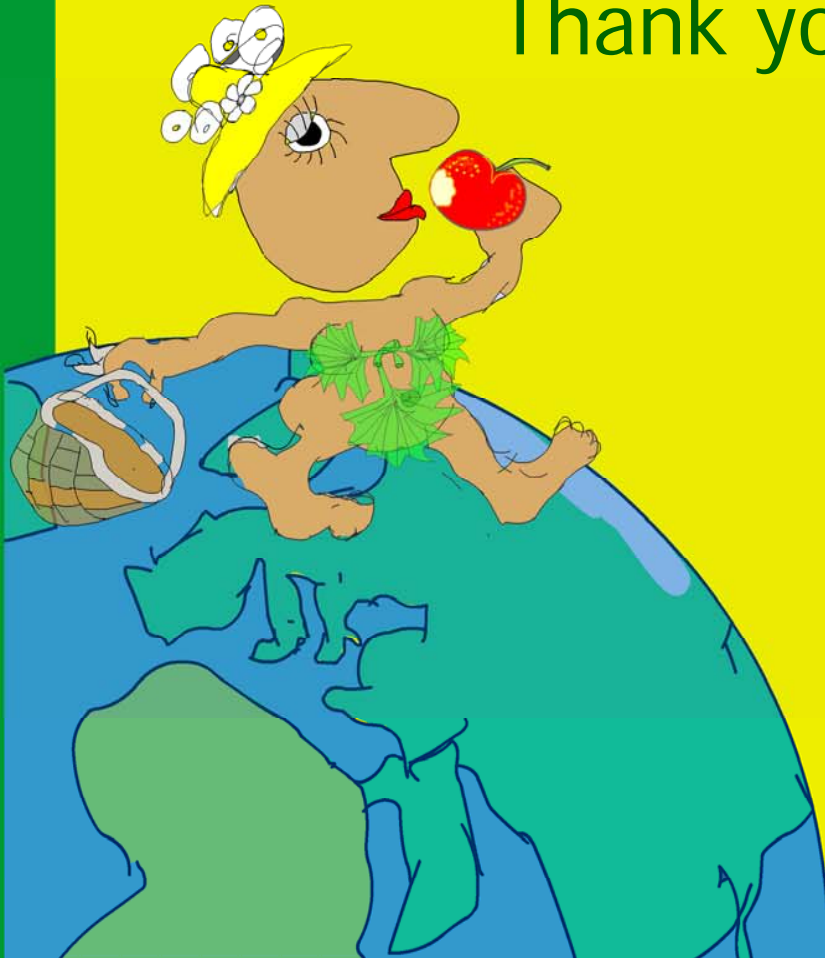




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Thank you for your attention



[almut.reichel@eea.europa.eu](mailto:almut.reichel@eea.europa.eu)  
[www.eea.europa.eu](http://www.eea.europa.eu)



# Suggestions for discussion

- Main priorities for action – in your country?
- Main priorities for action – in your profession?
- What can you do – as consumer, citizen, business actor, professional?

