

GREEN ECONOMY: INTRODUCTION TO THE CONCEPT

Michal Musil

Vienna, 22 November 2016

Content

- Definitions and origins of the concept
- Rational for greening the economy
- Key actors
- Typology of green economy policies
- Role of the Civil Society
- Case for the SEA
- Guide to sound policy formulation
- Information sources

Defionitions

○ UNEP

- *Green economy results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.*

○ OECD

- *The purpose of the Green Economy concept is “...to foster economic growth and development, while ensuring that the earth’s natural assets continue to provide the resources and environmental services on which our wellbeing relies.”*

○ ...

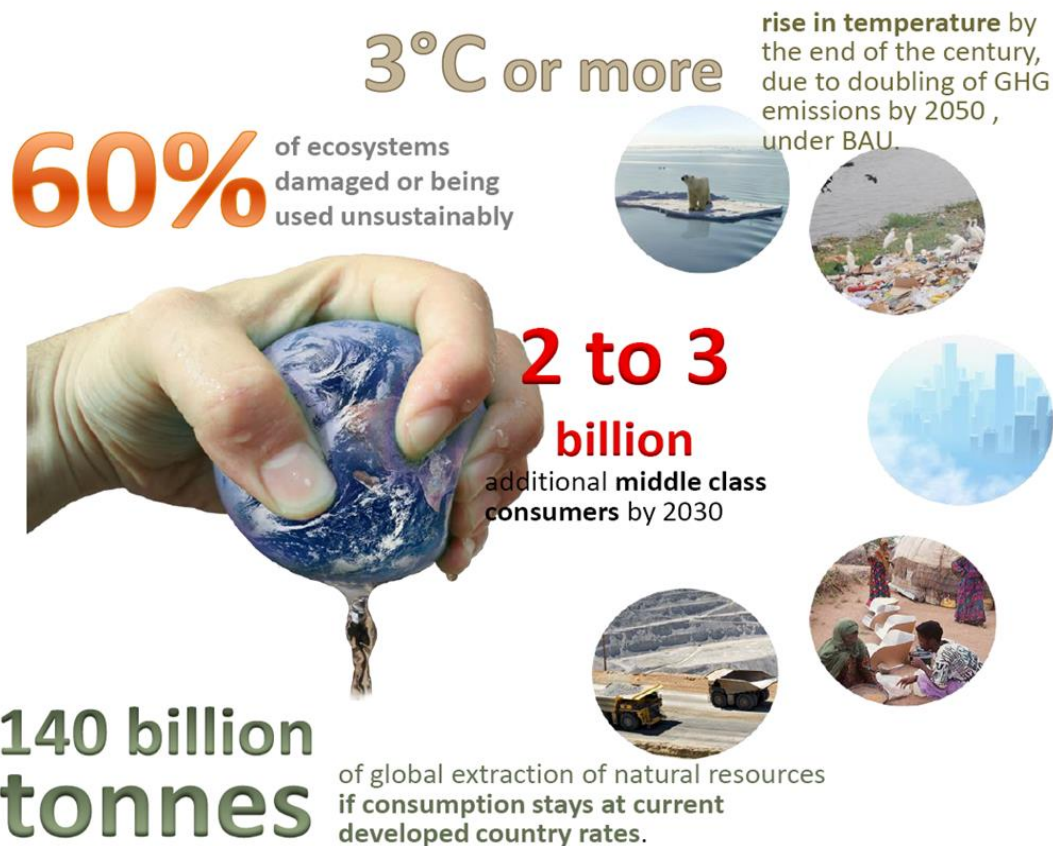
Green Economy Principles (UNEP)

Type	Principles
Economic	<ul style="list-style-type: none">• Recognizes natural capital and values• Integrated in economic development and growth models• Internalizes externalities• Promotes resource and energy efficiency• Creates decent work and green jobs
Environmental	<ul style="list-style-type: none">• Protects biodiversity and ecosystems• Invests in and sustains natural capital• Recognizes and respects planetary boundaries and ecological limits• Advances international environmental sustainability goals (e.g. MDG 7)
Social	<ul style="list-style-type: none">• Delivers poverty reduction, well-being, livelihoods, social protection and access to essential services• Is socially inclusive, democratic, participatory, accountable, transparent, and stable• Is equitable, fair and just – between and within countries and between generations

Terminology remarks

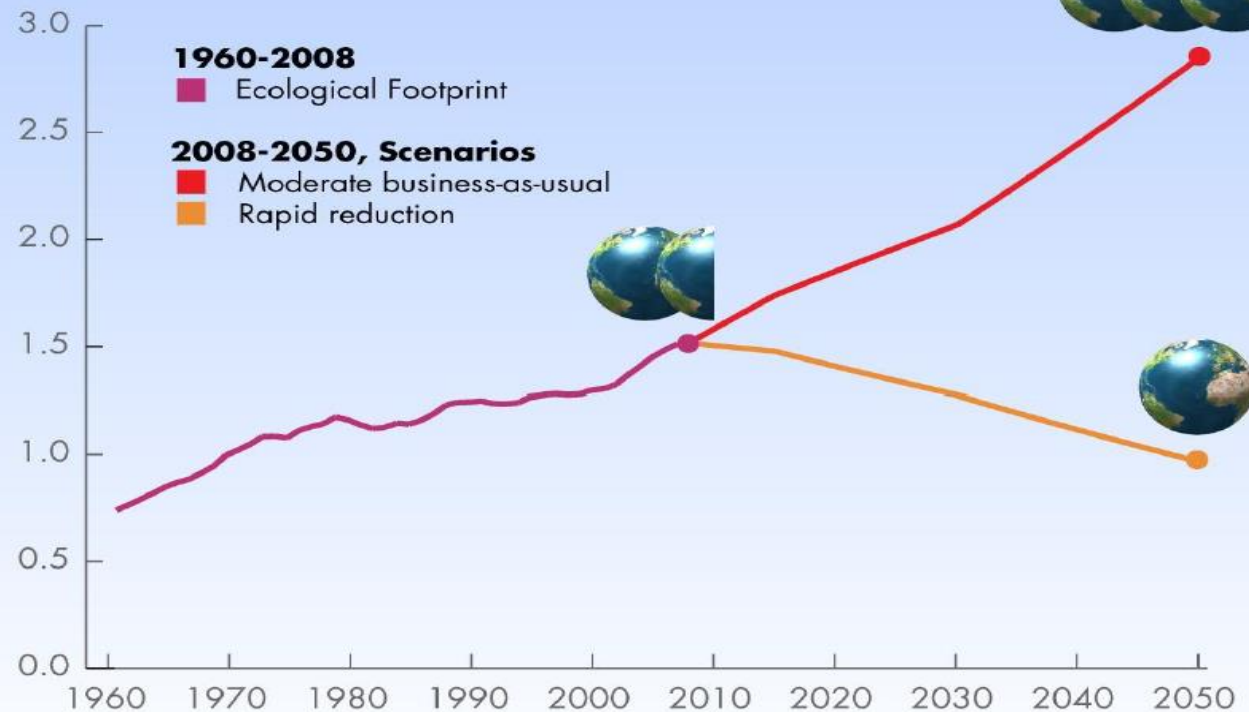
- Related terms: green growth, low carbon development, sustainable economy, steady-state economy etc.
- Green Economy does not equal Environmental (or Ecological) Economics

THE CONSEQUENCES OF CURRENT ECONOMIC DEVELOPMENT PATTERNS



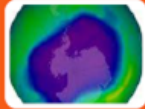
LIVING BEYOND ECOLOGICAL LIMITS

- Today, we use 1.5 earth capacity,
- By 2030, we will need 2.0 based on moderate BAU scenario.



y-axis: number of planet earths, x-axis: years

GLOBAL ENVIRONMENTAL CHALLENGES



AIR: Pollution, Ozone layer depletion and Climate change



ENERGY: access, efficiency, mix (renewable energies)



BIODIVERSITY: conservation, sustainable use, fair sharing of benefits



LAND: soil degradation, desertification, deforestation

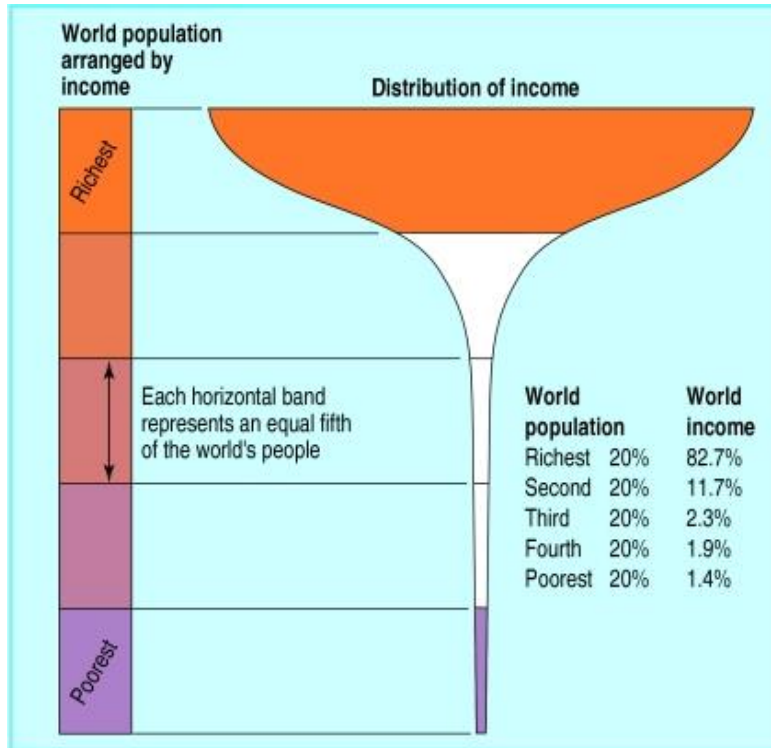


WATER: fresh water depletion, water pollution, ocean acidification



WASTE: solid waste, chemicals and hazardous substances, e-waste

INCOME DISTRIBUTION UNDER THE CURRENT GROWTH SCENARIO



80% of humanity continues to live on less than **\$10/day**

The **poorest 40%** of the world's population produce only **5%** of global income

The **richest 1%** owns **50%** of the world's wealth (Oxfam 2015)

Natural resource management provided by the poor and the way environmental degradation affects the poor are not being accounted

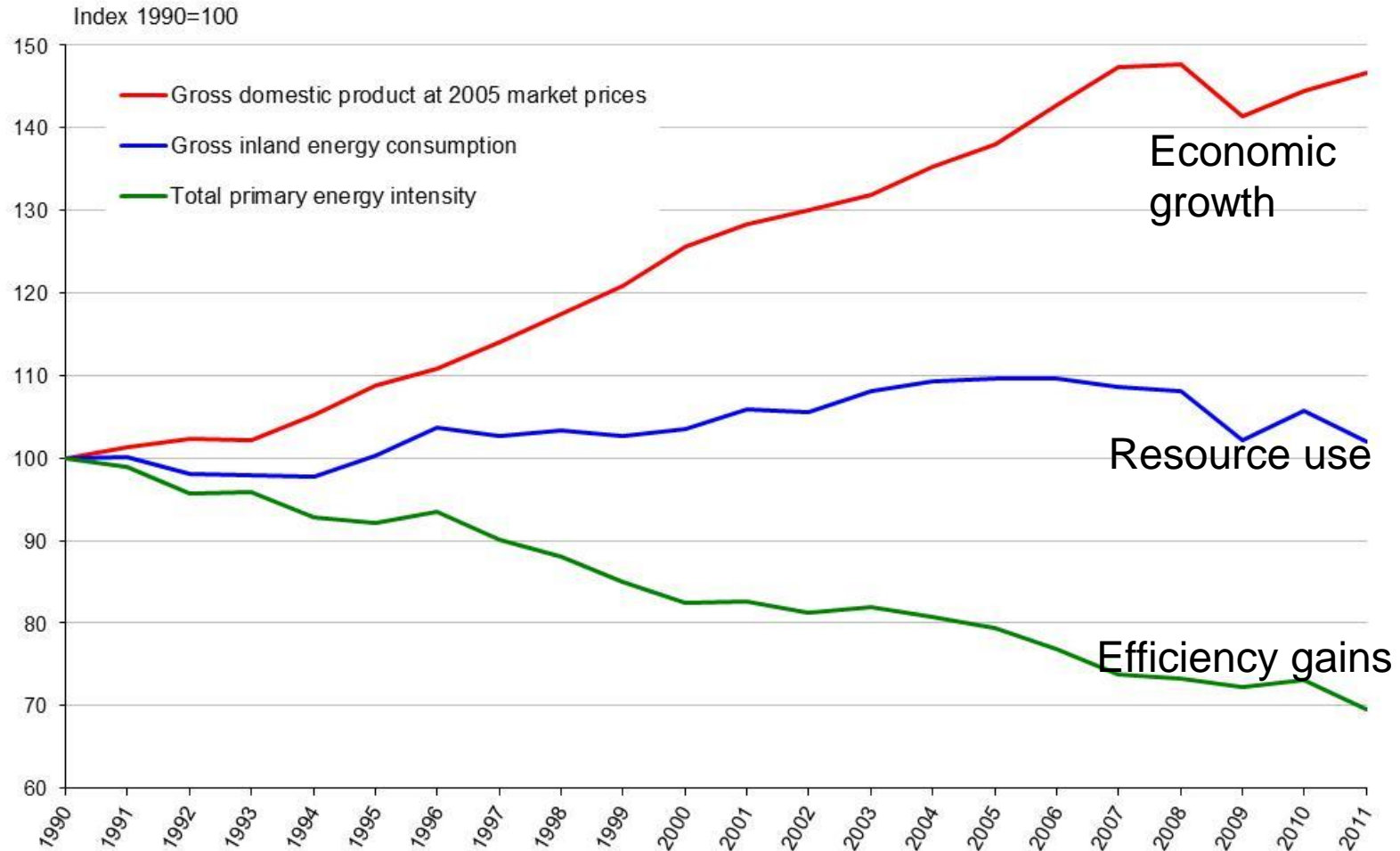
The environmental threat, inequality and barriers, go hand in hand !

Rational for greening the economy

○ Standard arguments:

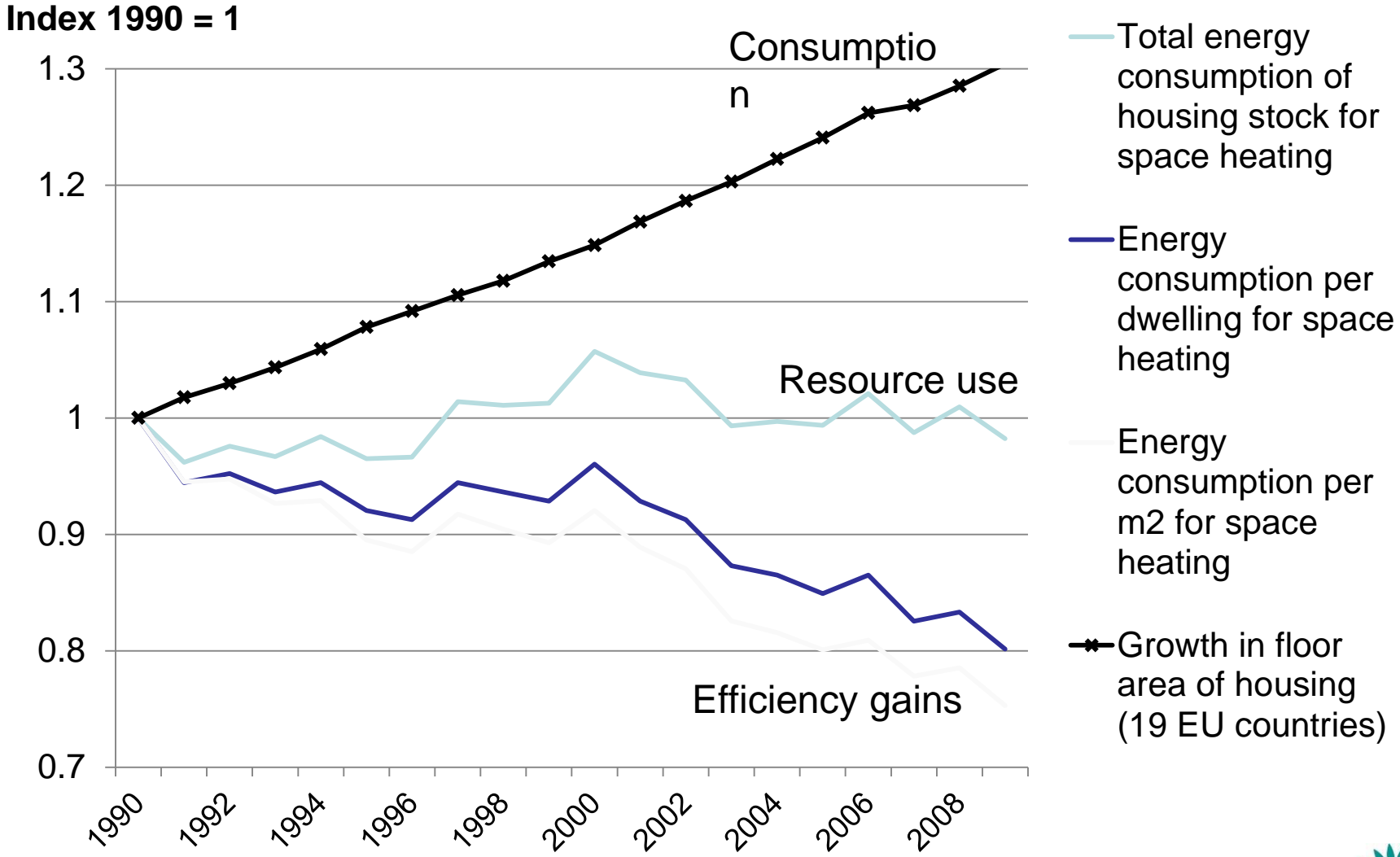
- *The costs of tackling environmental damage are not so great that they reduce the natural growth rate of a well-performing economy to zero.*
- *If environmental damage is not tackled, the costs to growth of a worsening environment will be greater*
- *'Stern Review' (Stern 2007)*

Back in Europe: energy efficiency has increased, but we are far from a low-carbon economy



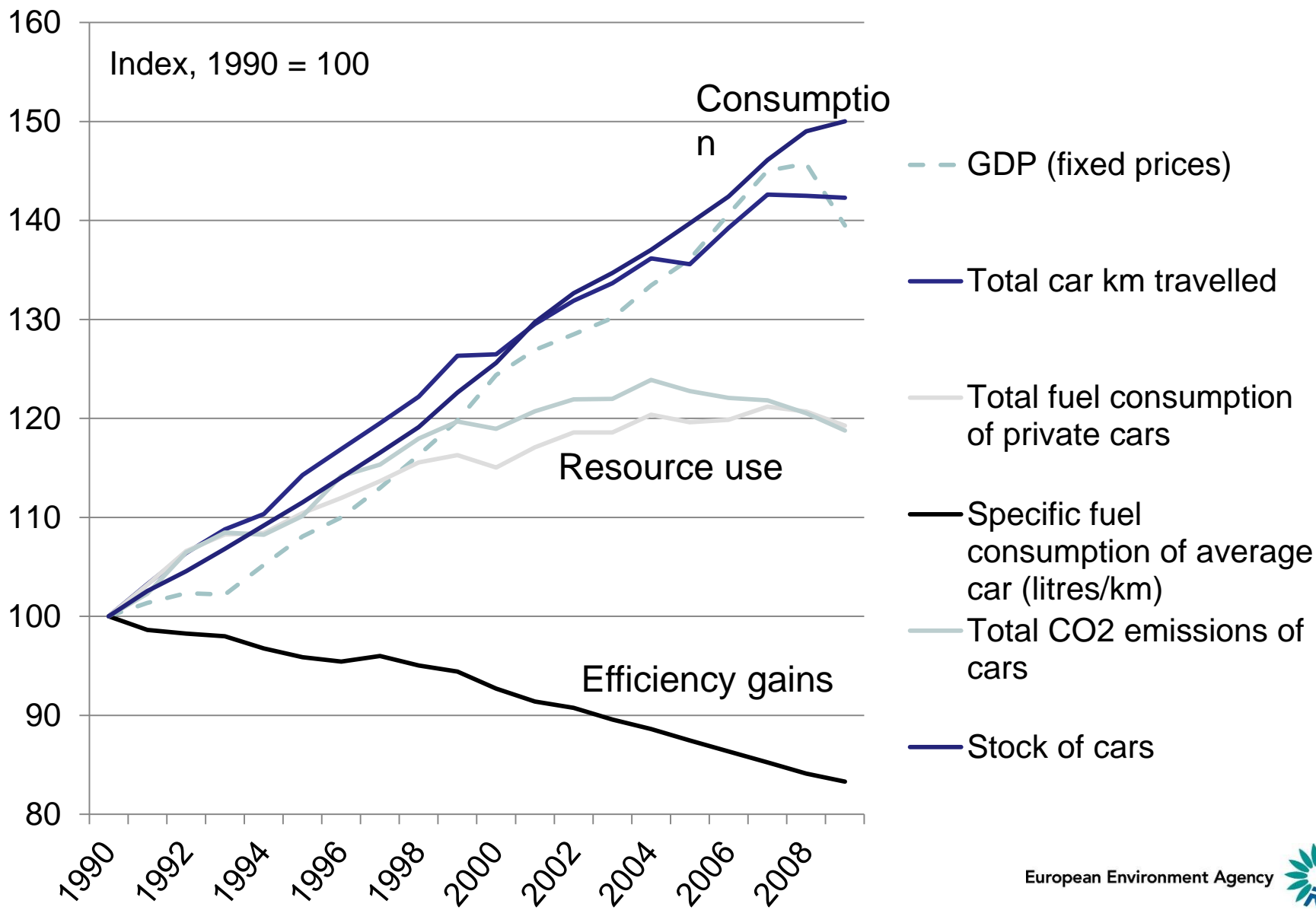
Source: EEA (CSI 028)

Homes are now more energy efficient, but also much larger, increasing pressures on land, water and materials

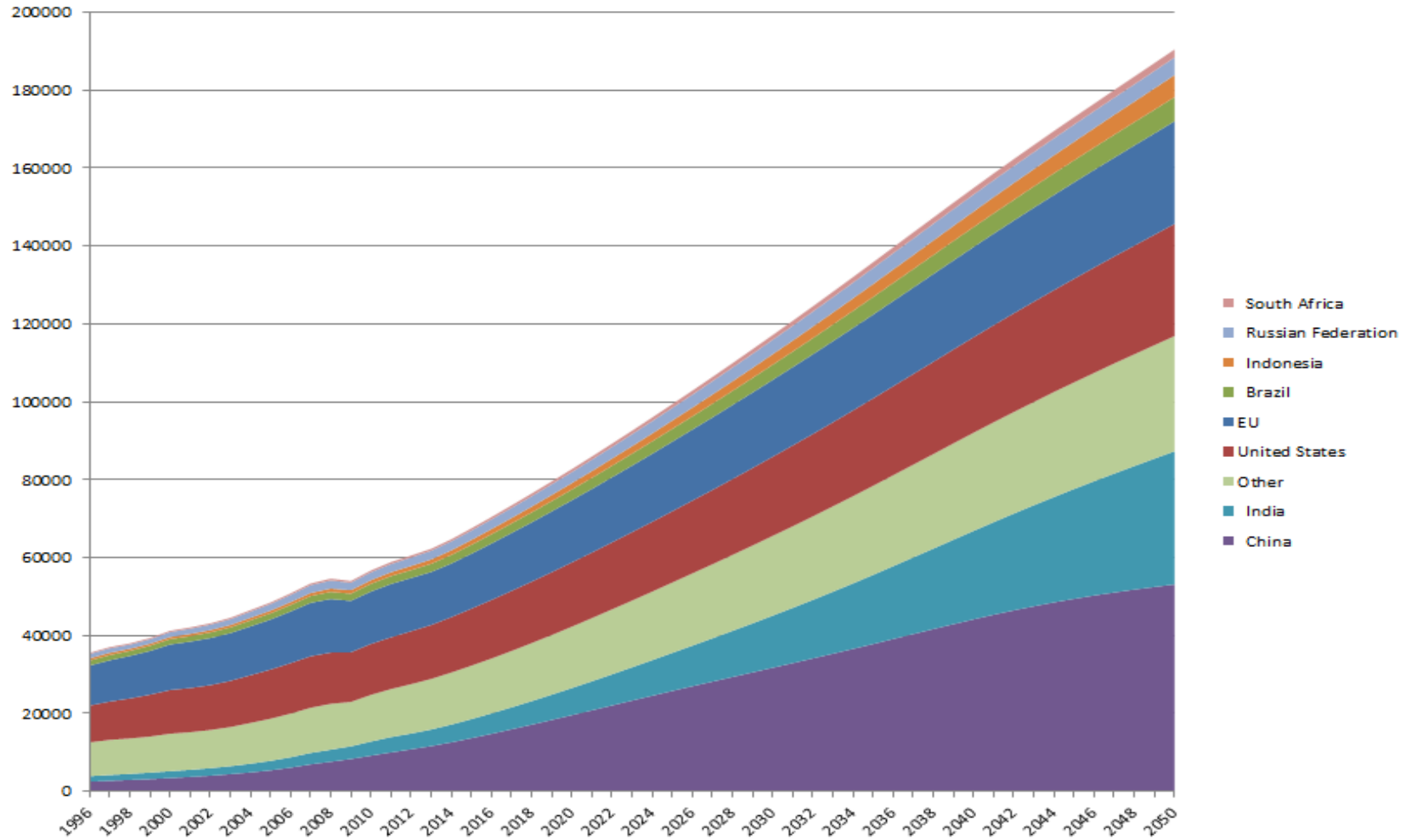


Source: SCP023 indicator (draft)

Cars are more efficient but contribute to a range of negative impacts on people's quality of life in cities



Past and projected global economic output (2005 USD PPP), 1996–2050



Note: gross domestic product expressed in billion 2005 US dollars at purchasing power parity.

Source: OECD 2013: 'All Statistics - OECD iLibrary'.

Need for transition

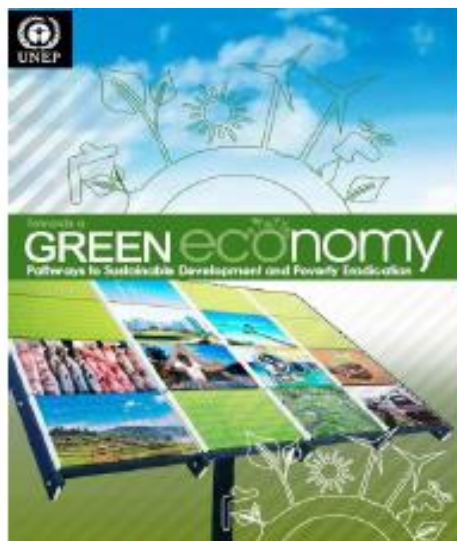
- ‘Systemic risks’ (persistent problems) require fundamental solutions
- “Regular policies” offer no fundamental solutions:
 - *Incremental institutionalism is too slow and often doesn’t touch the core issues*
 - *Market creation and commodification in itself is not a solution*
 - *Resource efficiency gains are necessary, but are not sufficient for ecosystem, economic and societal resilience*

Rational for greening the economy II.

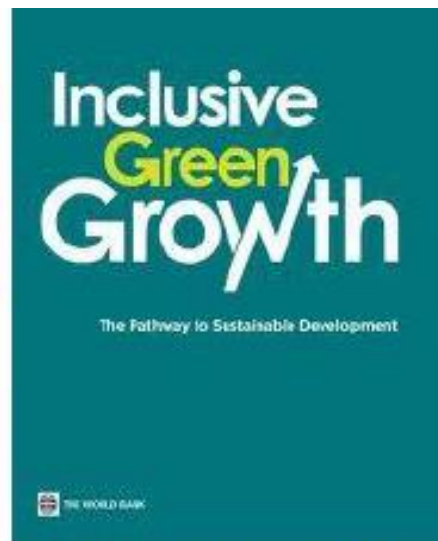
- *The 'strong' versions of green growth:*
 - Environmental protection is not just compatible with continued economic growth: it could positively promote it.
 - *Green Keynesianism: environmental stimulus in recession*
 - *Growth theory: correcting market failures*
 - *Comparative advantage and technological revolution: innovation and industrial policy*

Jacobs, M. (2013) 'Green Growth', in R Falkner (ed), Handbook of Global Climate and Environmental Policy, Oxford: Wiley Blackwell 2013

Promotion of Green Economy



UNEP (2011)



World Bank (2012)



OECD (2011)



European Commission (2010)

- Towards a green economy in Europe - EU environmental policy targets and objectives 2010-2050



Green Growth Knowledge Platform

- The World Bank, and other multilateral development banks: green growth
- The OECD 'green growth strategy' (2012)
- Global Green Growth Institute supported by a number of governments to advise countries on its implementation (GGGI 2012). Using its
- UNEP

Fund	Actors	Estimated volume (USD)
Global Environment Facility (GEF)	GEF agencies: UNDP, UNEP, World Bank and MDBs, FAO, IFAD, UNIDO	\$10.5 billion in grants and leveraged \$51 billion in co-financing.
Least Developed Countries Fund (GEF)	GEF agencies (see above)	\$346 million approved.
Special Climate Change Fund (GEF)	GEF agencies	\$50 million and leveraging \$649 million in co-financing.
Clean Technology Fund	World Bank and MDBs	Total pledged = \$4.936 billion.
Strategic Climate Fund (SCF) – Pilot Program for Climate Resilience	World Bank and MDBs	Total pledged = \$1.1 billion
SCF – Forest Investment Program	World Bank and MDBs	Total pledged = \$639 million
SCF – Program for Scaling-Up Renewable Energy in Low Income Countries	World Bank and MDBs	Total pledged = \$392 million
Forest Carbon Partnership Facility	World Bank, IADB, UNDP	Target size = \$385 million
Green Climate Fund	UNFCCC	TBC
Adaptation Fund	GEF agencies	\$166 million of funded projects
Global Energy Efficiency and Renewable Energy Fund	European Union	108 million Euros (approx USD 141 million); target funding = 200 to 250 million Euros (approx USD261 – 326 million)
Clean Development Mechanism	UNFCCC	\$215.4 billion in registered projects
Technology Mechanism	UNFCCC, UNEP, UNIDO	TBC

Rio+20 Outcomes on Green Economy

The Green Economy should:	Agreed at Rio+20
• Create decent work and green jobs	Y
• Promote resource and energy efficiency	Y
• Measure progress using metrics and indicators that go beyond GDP	N
• Respect planetary boundaries, or ecological limits or scarcities	N
• Use integrated decision making	Y
• Drive innovation	Y
• Facilitate education and skill development	Y
• Be low carbon and low emissions	N
• Be resilient to risks and shocks	N
• Support human rights and workers' rights	Y
• Maintain economic growth	Y

Typology of green economy policies

- Internalising externalities
- Incentivising
- Institutions
- Investment
- Information
- Inclusion

Case for the stakeholder engagement

- Stakeholder engagement and societal buy-in are fundamental for the transition to a green economy, and this involves more than simply taking part in meetings; it means helping civil society to become equal partners in development and implementation.
- Need for a large degree of trust and cooperation among involved stakeholders in order to find solutions to common challenges. Continuous efforts must be made to build such trust.
- Civil society actions are especially visible the climate change mitigation, biodiversity and ecosystems restoration, energy efficiency, waste management, or the circular economy.
- Key role of civil society lies in changing the economic paradigm and consumer behaviour.

Role of civil society

- 1. In defining the agenda – participating in formulating visions
- 2. In setting the direction – participation in planning
- 3. In implementing the transition – involvement in specific initiatives for change in policy and practice
- 4. In evaluating performance – ensuring accountability for process and results

Tools for civil society engagement

- Information, education-based, capacity building and voluntary instruments - often referred to as “softer” instruments
- Actions aimed at driving behavioural changes, with the goal of making consumers and business pursue green options based on knowledge of benefits and opportunities that can be achieved.
 - *voluntary certification and labelling schemes*
 - *awareness raising campaigns,*
 - *educational and capacity-building programmes knowledge and skills sharing needed to build the human capital for green economy.*

Case for Strategic Environmental Assessment (SEA)

- SEA is a systematic & anticipatory process, undertaken to analyse environmental effects of proposed plans, programmes & other strategic actions and to integrate findings into decision-making
- Facilitates involvement of authorities, experts and civil society stakeholders in the planning and decision making
- Requires strategic environmental policy objectives (including those related to green economy) to be taken into consideration (compliance check)

Why do we need SEA?

- To support the preparation (i.e. planning) and implementation of good quality planning documents
- To ensure that sustainability considerations inform & are integrated into planning and decision-making
- To ensure that economic planning is consistent with environmental obligations and policies (e.g. regarding climate change, air quality, biodiversity)
- To address strategic issues of concern that cannot be effectively addressed through project-level decision-making (SEA is not a mega-EIA!)

Typical / Generic SEA Steps

1. Screening

- Determination if SEA will be applied

2. Scoping / Baseline Analysis

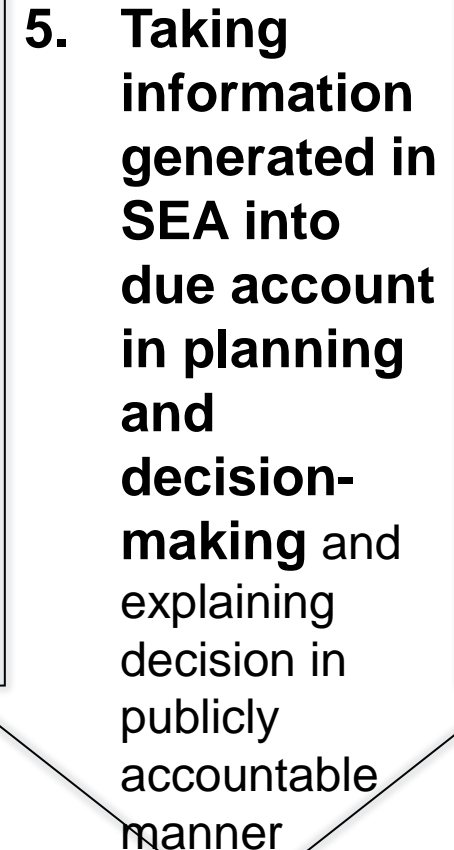
- Determination of key issues that should be considered within the SEA process
- Analysis of key issues i.e. past evolution, current situation and likely future evolution if the plan or programme is not implemented

3. Assessment of effects of the plan or programme on the key issues and development of mitigation measures (including monitoring scheme)

4. Compilation of the SEA Report and its submission for consultations with environmental and health authorities and the public



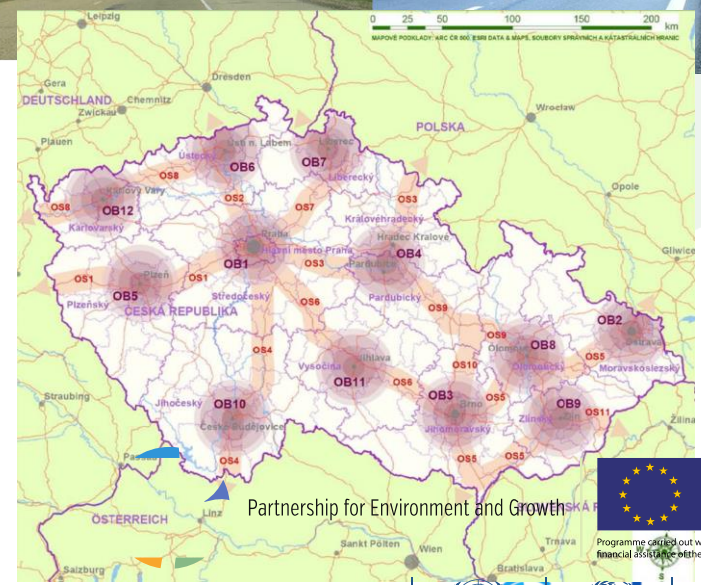
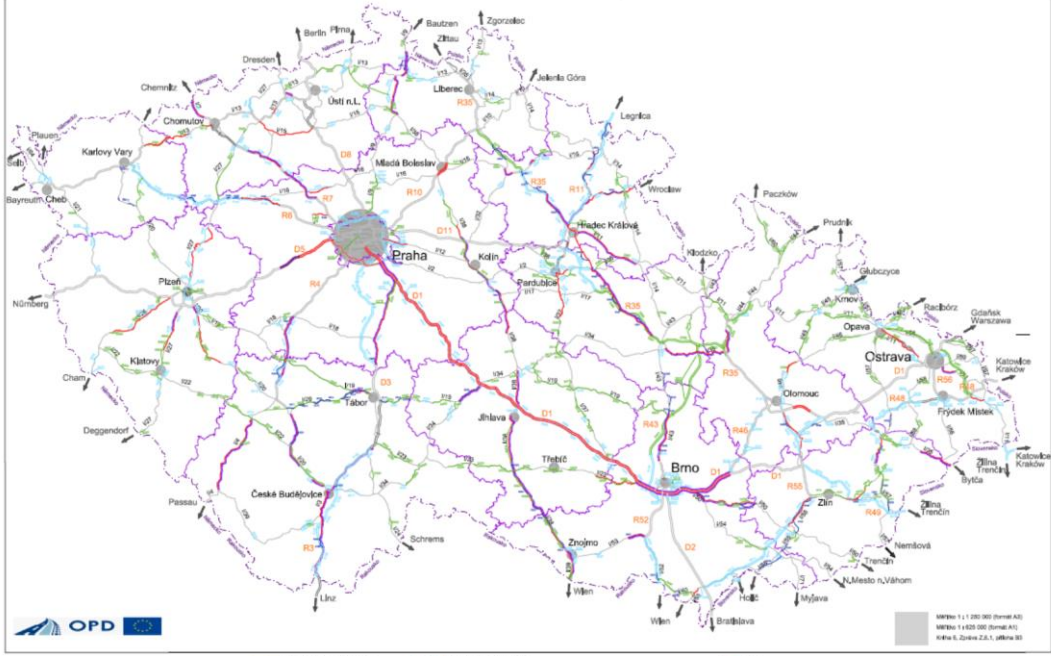
4. Consultations



5. Taking information generated in SEA into due account in planning and decision-making and explaining decision in publicly accountable manner

Case example: 1: SEA for National Territorial Development Policy, Czech Republic

Greening the Transportation:
Addressing landscape fragmentation

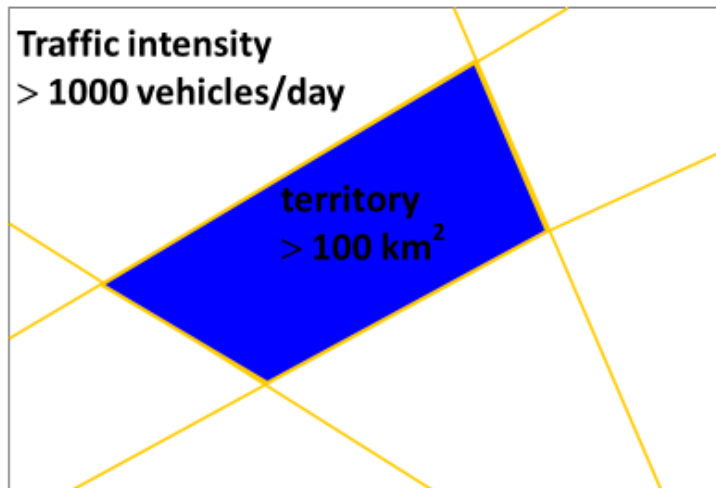


Partnership for Environment and Growth

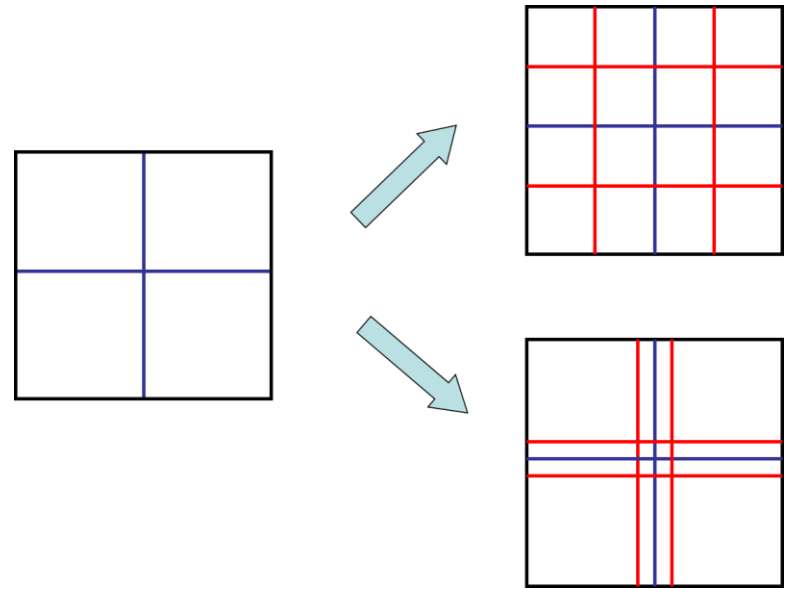
Programme carried out with the financial assistance of the European Union

Landscape Fragmentation by transport

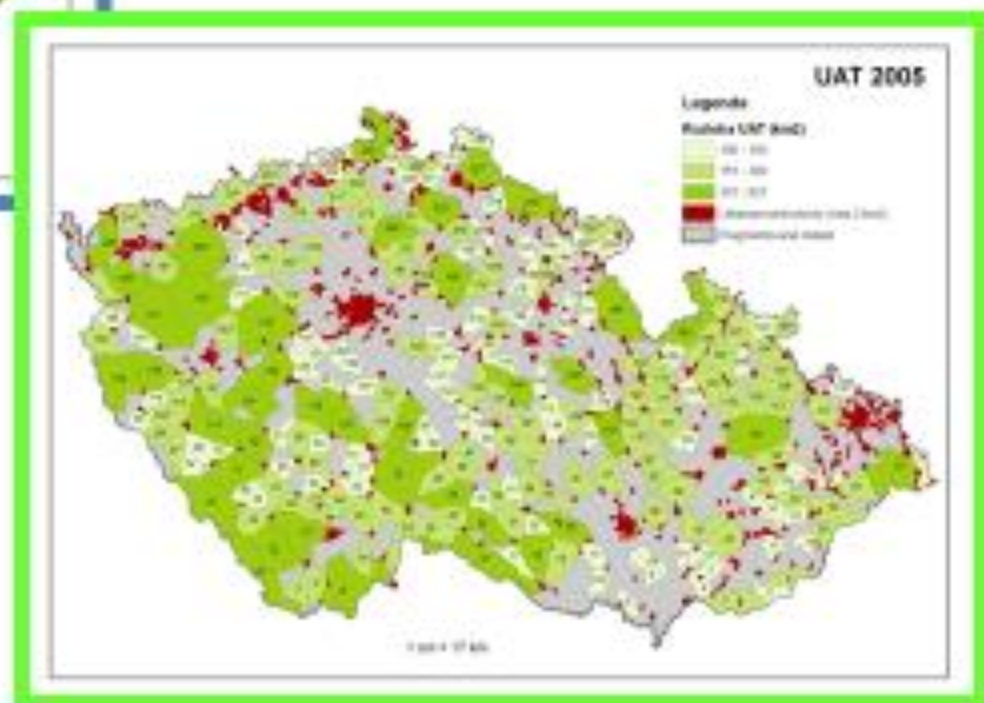
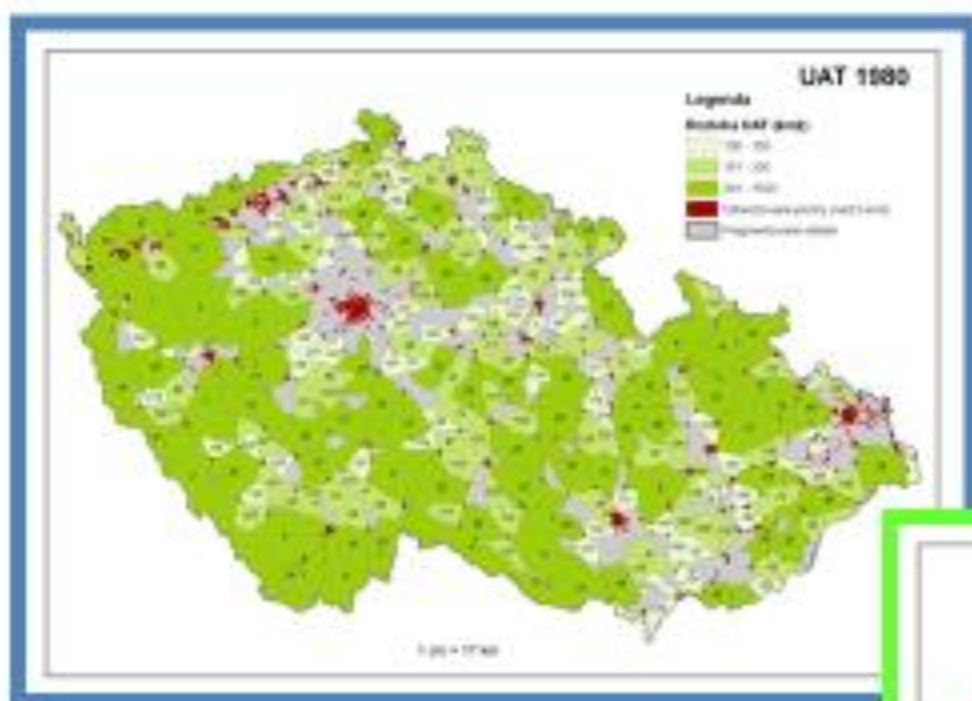
CZ: Methodology developed by Evernia s.r.o.



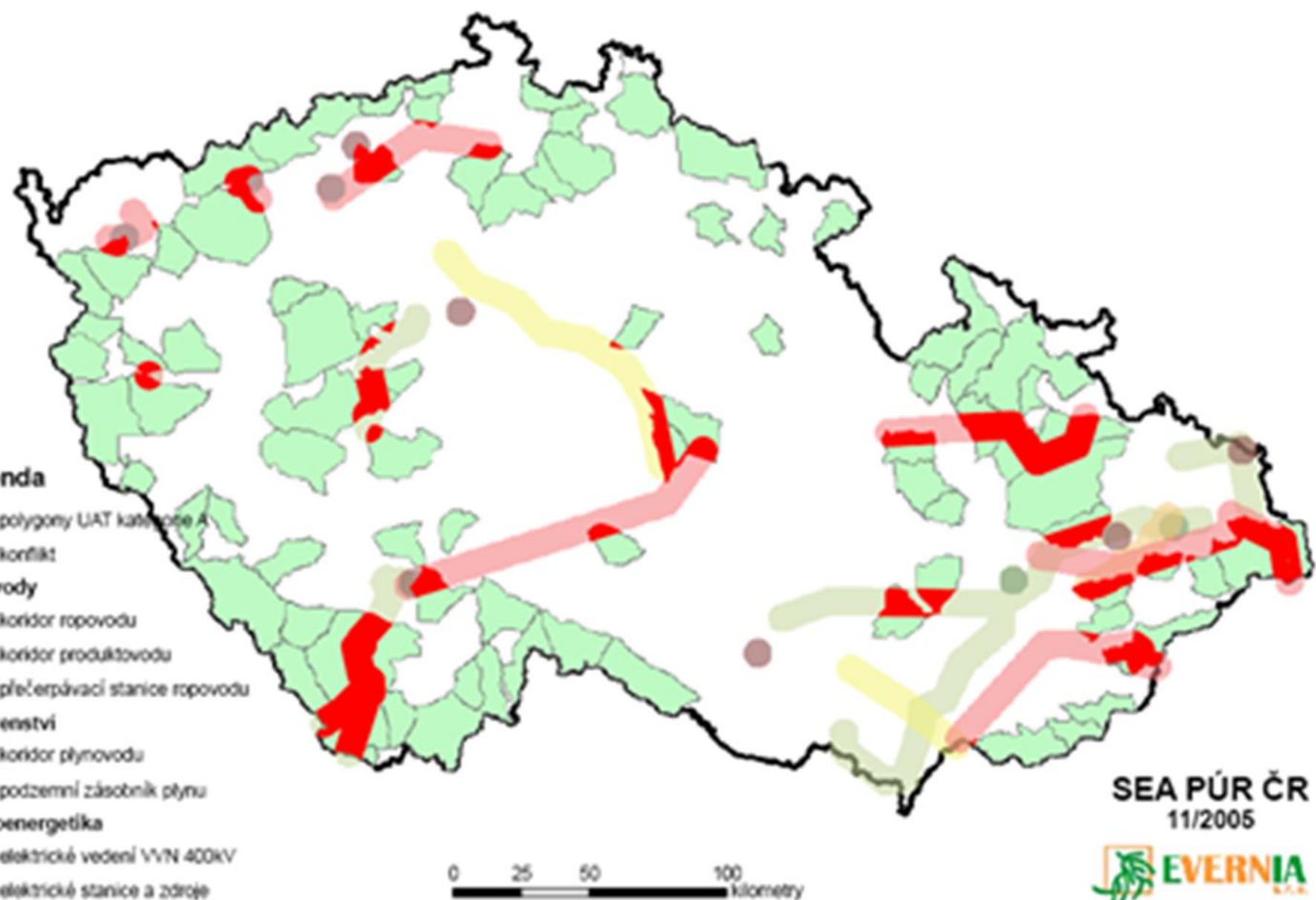
Evernia s.r.o.



Informace na <http://geoportal.cenia.cz>



Kontakt polygonů UAT kategorie A
se záměry dálkovodů, plynárenství a elektroenergetiky



SEA PÚR ČR
11/2005



SEA Benefits

- SEA succeeded in identification of number of potential (spatial) planning conflicts
- Local stakeholders effectively voiced their concerns regarding the tracing several transport corridors
- Formulated principles and possible mitigation measures applicable at the level of more detailed regional planning
- Contributed to the establishment of the landscape-fragmentation approach as standard tool of environmental assessment in the Czech Republic

Case example 2: SEA promoting green economy, Republic of Moldova

SEA as a driver of green economy
strategy development

Case study: Moldova

○ Context

- *EaP Green programme supporting development of the SEA legislation and practice.*
- *1. Pilot SEA for Municipal Master plan (Orhei town)*
- *2. Pilot SEA for the National Green Economy Action Plan for the Republic of Moldova*
- *The SEA drove interactive process facilitating inputs from experts, environmental and health authorities and other relevant stakeholders (including the general public) into the process of the preparation of local level Master Plan and the National Road Map for the Green Economy and its Action Plan*

Case study: Moldova

○ Results

- *Significant contribution of the civil society stakeholders (NGOs, Independent experts, general interested public) in following aspects:*
 - Identification of planning priorities and key concerns
 - Expanding knowledge base (namely locally important information unaccounted for in the environmental statistics)
 - Identification of available alternatives and associated risks
 - Design of reasonable and realistic proposals for monitoring of implementation

Quest for the green economy: potential risks

- *Costs associated with the transition (namely for developing countries) may hamper economic development and therefore its capability to reduce poverty.*
 - the benefits, risks and costs of moving to a green economy can only be estimated and will be different for each country. Structural risks can appear, along with the economic shift of countries which changes their demand and as a result companies may lose market shares
- *Can serve as a excuse for protectionist trade policies (consistency with WTO rules debated)*

Case study: Photovoltaic Electricity Production in the Czech Republic

○ Context

- *The indicative target for gross electricity consumption from renewables was set to 8% by 2010.*
- *15 years period of guaranteed feed-in tariffs to reach 15 year repayment period for the producers of energy from renewable sources.*

○ Effects

- *Feed-in-tariffs in 2006 reached 15 565 CZK/MWh (568 €) while Investment costs of solar power stations have fallen rapidly mostly due to the expansion of cheap technology from China. In Czech conditions, the reported decrease of price of solar panels was approximately 40% in period 2007–2009*
- *In 2008 the overall installed output of solar power industry was 40 MW (0.2% of overall installed output)*
- *The installed output of solar power stations in 2013 was 2 132 MW (10.1% of overall installed output), but the production was only 2 070 GWh (2.4% of overall gross domestic production)*

Case study: Czech Republic

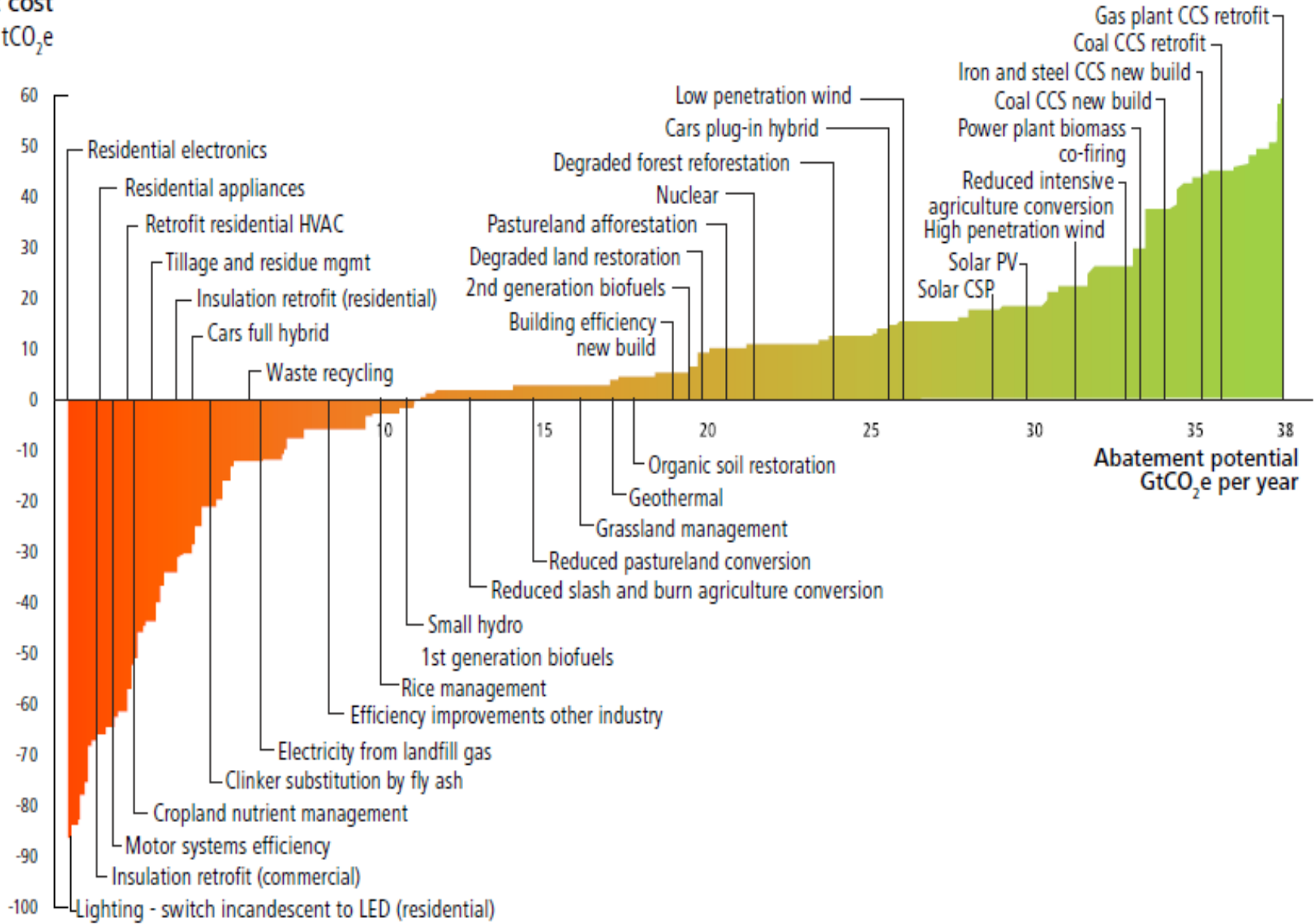
○ Reaction

- *From 2014 onwards, the feed-in-tariff for solar power generation was abolished.*

○ Results

- *Poor economy*
- *Incentives for criminal activities*
- *the 2010 retroactive tax triggered threats of legal action from affected investors – further costs for the state*
- *Political backlash against renewables and environmental policies in general*

Abatement cost
€ per tCO₂e



McKinsey global CHG abatement cost curve

Guide to sound policy formulation

- UNEP. (2014). A Guidance Manual for Green Economy Policy Assessment.
- UNEP. (2014). Using Indicators for Green Economy Policymaking.
- UNEP. (2014). Using Models for Green Economy Policymaking.

Sources

- Division for Sustainable Development, UNDESA: A guidebook to the Green Economy.
 - *Issue 1: Green Economy, Green Growth, and Low-Carbon Development - history, definitions and a guide to recent publications*
 - *Issue 2: Exploring green economy principles*
 - *Issue 3: exploring green economy policies and international experience with national strategies*
 - *Issue 4: A guide to international green economy initiatives*

Sources

- The Green Growth Knowledge Platform (GGKP)
 - <http://www.greengrowthknowledge.org>
- UNECE
 - <http://www.unece.org/sustainable-development/green-economy/home.html>
- *The Partnership for Action on Green Economy (PAGE)*
 - <http://www.un-page.org>

Sources

- *The Partnership for Action on Green Economy (PAGE)*
 - <http://www.un-page.org/knowledge-resources>
 - E-learning courses
 - INTRODUCTION TO GREEN ECONOMY: CONCEPTS AND APPLICATIONS
 - GREEN ECONOMY AND TRADE
 - GREEN FISCAL REFORM
 - COUNTRY REPORTS
 - GUIDANCE FOR PAGE PARTNER COUNTRIES
 - INTRODUCTORY LEARNING MATERIALS ON GREEN ECONOMY
 - ADVANCED LEARNING MATERIALS ON GREEN ECONOMY
 - TECHNICAL GUIDANCE

Thank you!

Michal Musil

michal.musil@integracons.com