

# Ecology and Sustainable Development.

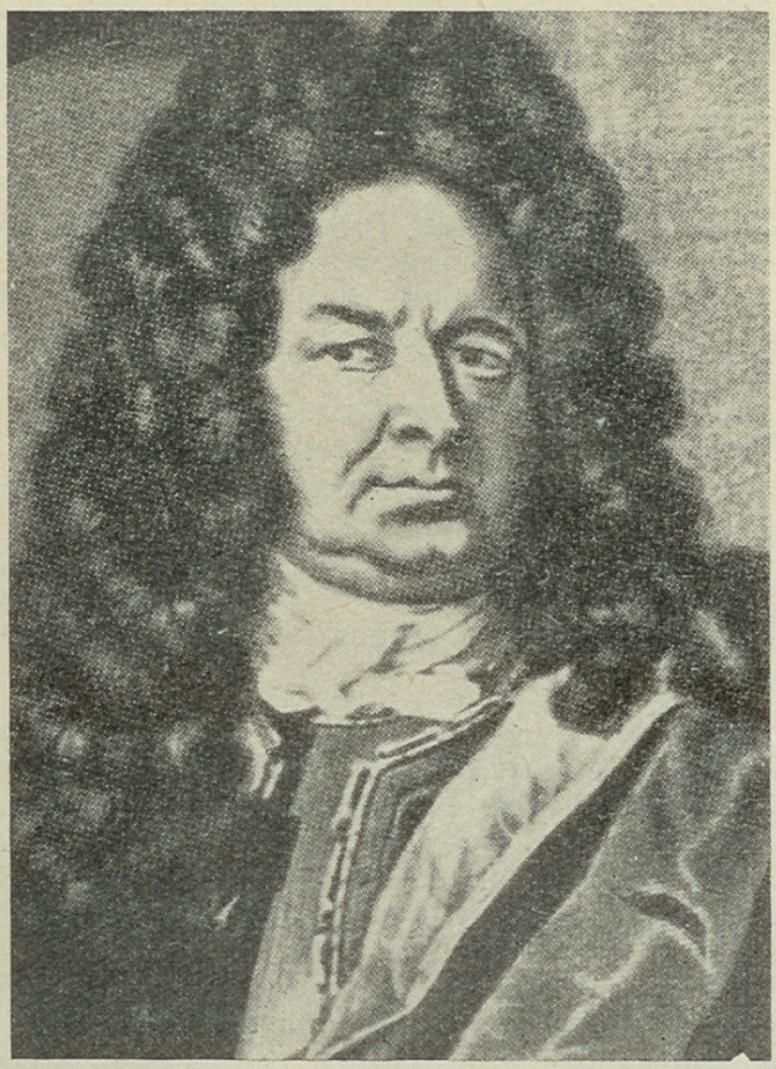
## 4. Sustainable Development as a Concept for Societal Evolution:

- The origin of environmentalism and sustainability.
- The evolution of environmental policies at a global level.
- Milestones for EU policies on environmental protection and sustainable development.



# The Evolution of Environmental Policies.

- First appearance of term „sustainability“ 1713 in a publication of Carl von Carlowitz (1645 – 1714) „Oberberghauptmann“ in Saxonia in respect to the management of forests.



•He demanded that the forest should be managed in a „sustainable“ manner, meaning that not more would be extracted as would regrow.

•This led to a decree of the King of Saxonia for the sustainable management of forests and indeed deforestation could be stopped.



# The Evolution of Environmental Policies.

„Environmental Protection“ virtually unknown until 1960s.



Public awareness first raised massively in 1962 by Rachel Carson through her battle against the uncontrolled use of pesticides in agricultural production in the USA for which she coined the term „biocides“.

## **Rachel Carson “The Silent Spring” 1962:**

“Now I truly believe that we in this generation must come to terms with nature, and I think we’re challenged, as mankind has never been challenged before.....”

**1969 Apollo 8: Earthrise over the moon.  
Beginning of “Global Environmental Conscience”**



*Silent Spring* “created” a grassroots environmental movement in the USA, spurred a reversal in US pesticide policy - leading to a nationwide ban on DDT and to the creation of the US Environmental Protection Agency (EPA).

The view of the whole earth made people aware that we live on a planet of limited size and resources.

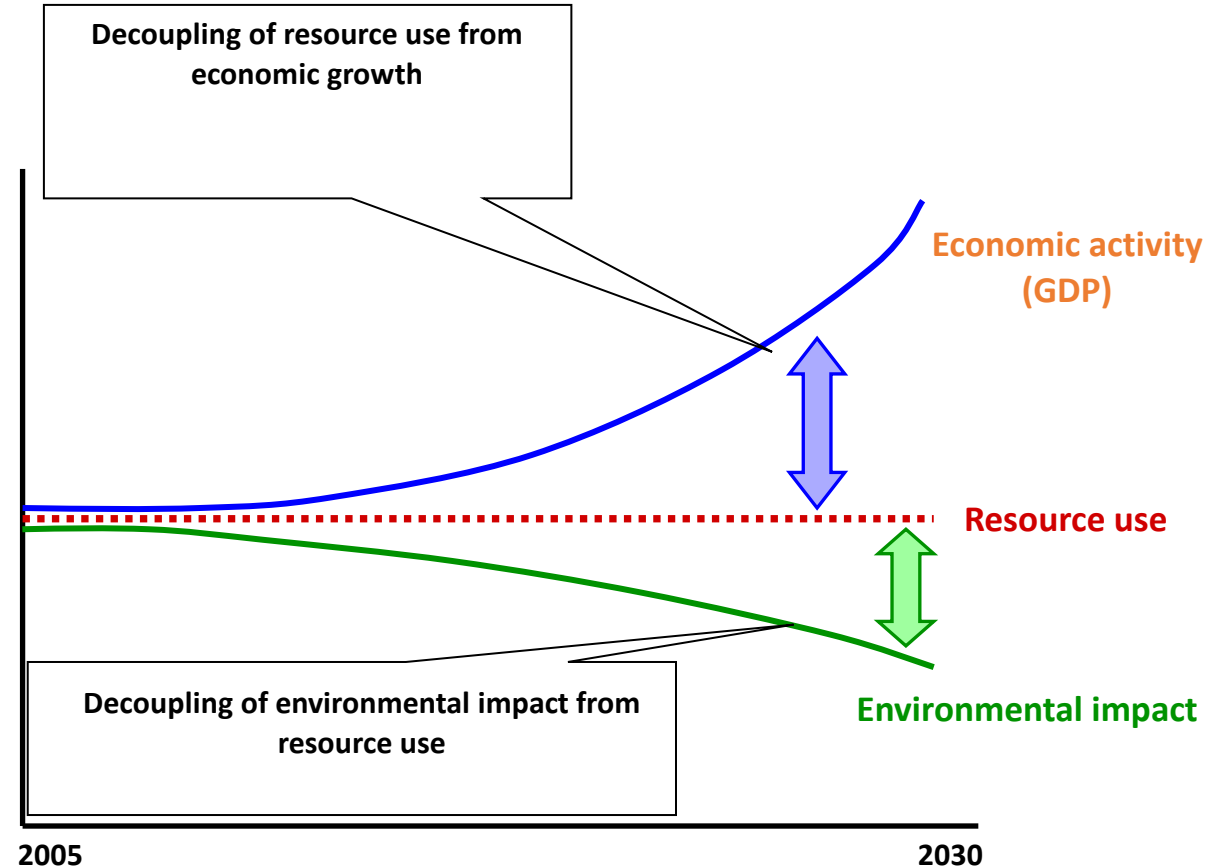
# The Evolution of Environmental Policies.

- 1972 the issue of sustainable use of the limited natural resources got great public attention:  
“The Limits to Growth - A Report of the Club of Rome’s Project on the Predicament of Mankind”



## Dennis Meadows:

“If the world's consumption patterns and population growth continue at the same high rates of the time, the earth will strike its limits within a century.”



- Quantitative predictions proved to be complete wrong.
- But the essential message was understood and the Meadows report caused a world wide debate on resource issues.

# The Evolution of Environmental Policies.

- Since the 1970s adoption of regulations on pollution control focussing on air, water and waste and control of toxic substances at national (e.g. Austria, Scandinavian countries, USA) and European level which achieved a substantial improvement of the environment.
- In 1972 environmental protection and sustainable development were for the first time placed on the international policy agenda at the Stockholm Conference organised by the UN.
- **Stockholm Conference** adopted fundamental principles, like:  
*„The natural resources of the earth, including air water, land, flora and fauna, must be safeguarded for the benefit of present and future generations through careful planning and management.“*
- **Establishment of the UN Environment Programme (UNEP) in 1972:**
  - to coordinate the United Nations environmental activities with special focus on developing countries.
  - Headquarter Nairobi with several regional offices all over the world.
  - UNEP activities cover a wide range of issues regarding the atmosphere, marine and terrestrial ecosystems and funds environmentally related development projects.
  - UNEP publishes important reports on global issues (like the Global Environment Outlook [GEO] series).

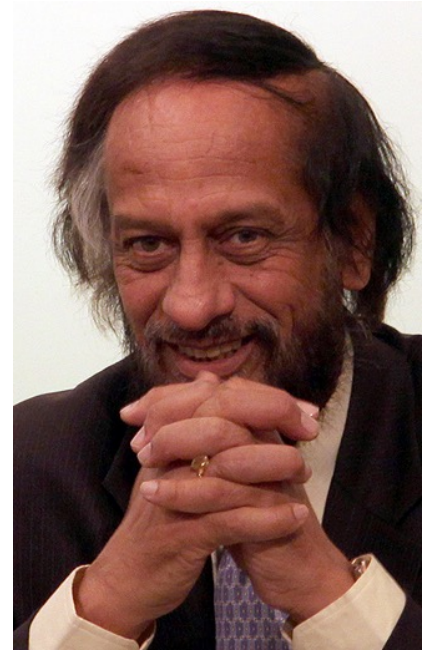
# The Evolution of Environmental Policies.

- **From environmental protection to Sustainable Development:**
- SD concept promoted by the World Commission on Environment and Development (WCED): commissioned report “Our Common Future” in 1983, published in 1987 (“Brundtland Report”).



*„Sustainable Development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.“*

Rajendra K. Pachauri,  
IPCC Chair  
2002 - 2020



- The World Meteorological Organization and the UNEP established the Intergovernmental Panel on Climate Change (IPCC) in 1988.
  - IPCC is the scientific body tasked to evaluate the risk of climate change caused by human activity.
  - The IPCC has so far published 6 assessments of climate change which are generally considered as the authoritative reports on the topic and therefore serve as the most important basis for policy making.
  - The IPCC shared the 2007 Nobel Peace Prize with former Vice President of the United States Al Gore.

# The Evolution of Environmental Policies.

- **UN Conference on Environment and Development (“Earth Summit”) in Rio 1992:**
  - Follow-up action from the Brundtland report with 4 important results:
    - The Framework Convention on Climate Change (UNFCCC).
    - The Convention on Biological Diversity (UNCBD).
    - The Convention to Combat Desertification (UNCCD).
    - The Forest Principles on the sustainable management of Forests.
- **Establishment of the Millennium Development Goals**  
at the Millennium Summit held at the UN Headquarters in New York in 2000.
- **UN World Summit on Sustainable Development (Earth Summit 2002):**
  - **Johannesburg Declaration**, an agreement focusing particularly on the worldwide conditions that pose severe threats to the sustainable development in poor regions of our world.
  - **Fisheries agreement:** to restore the world's depleted fisheries.
- **Paris Climate Agreement 2015:**
  - To limit global warming to "well below 2°C" (aiming at 1,5°C) compared to pre-industrial levels.



# The Evolution of Environmental Policies.

- UN 2030 Agenda for Sustainable Development 2015:

–Successor program of the Millenium Development Goals – 17 goals focusing on the most important challenges for mankind providing a framework for global sustainable development.



**Missing goals:**  
Sustainable  
Population  
Growth,  
No Corruption.

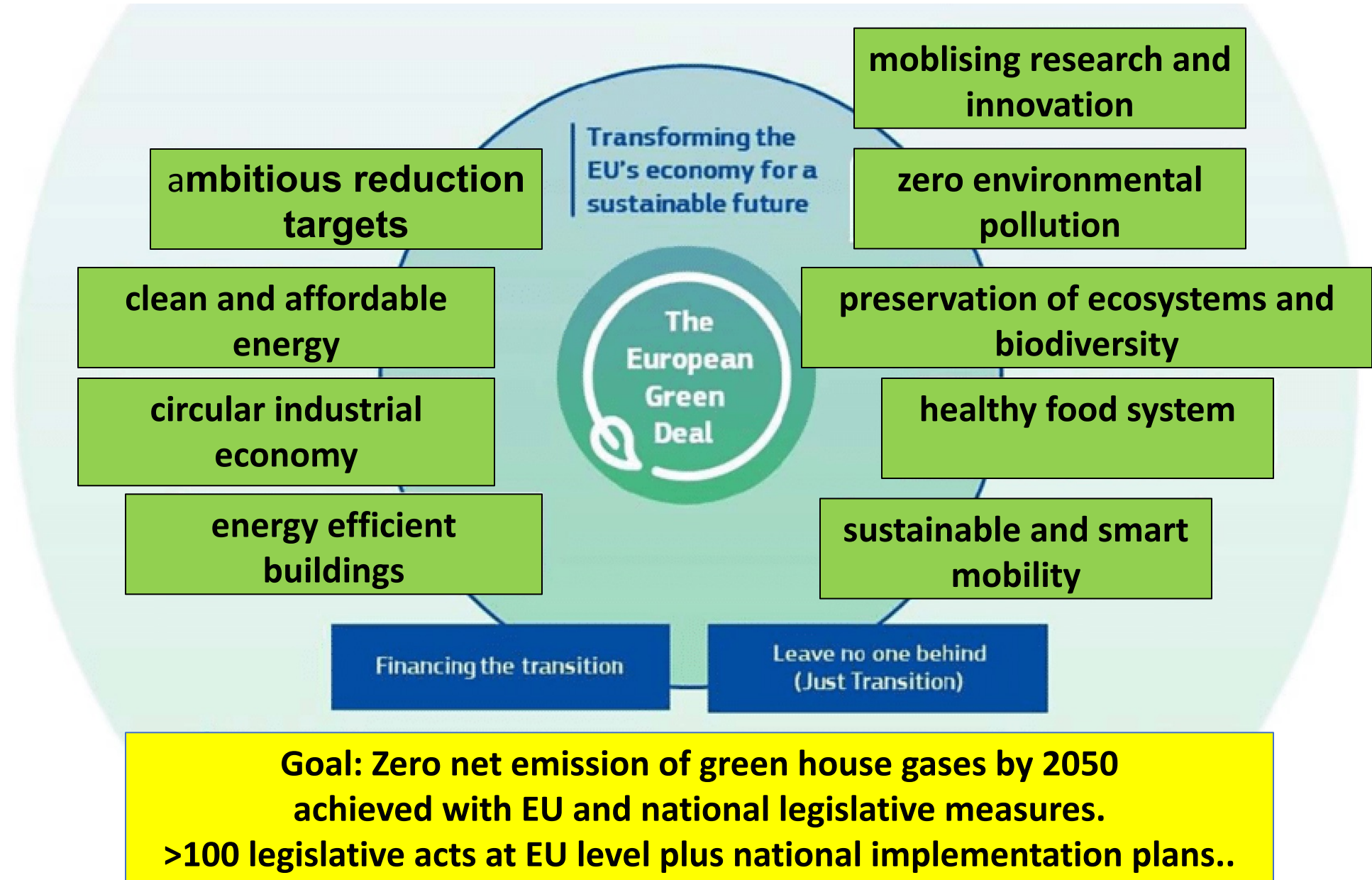
Source:  
United Nations 2015

# The Evolution of EU Environmental Policies.

- 1973 - First Environmental Action Programme of EC
- 1996 - Creation of the European Environment Agency in Copenhagen.
- 1997 - Single European Act (Amsterdam) placed environmental protection on equal footing with economic growth and free trade.
- 2001 - Gothenburg European Council Decision establishing EU Sustainable Development Policy:
  - ***Integration of environmental considerations into all Community policies.***
- 2008 - The Climate and Energy Package: a series of Directives to combat climate change.
- 2019 - „The European Green Deal“ – a programme for a carbon-neutral Europe by 2050.
- 2023 - The 8<sup>th</sup> European Environmental Action Programme with focus on Green Deal:
  - achieving the 2030 GHG emission reduction target and climate neutrality by 2025,
  - enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change,
  - accelerating the transition to a circular economy,
  - pursuing a zero-pollution ambition,
  - protecting, preserving and restoring biodiversity and enhancing natural capital.

Since 1970 ca 500 pieces of EU legislation have been produced and 8 Environment Action Programmes established: Basis for the current policy guidelines of the European Union.

# A European Green Deal: Striving to be the First Climate-Neutral Continent.



# **The Policy Framework for the European Union.**

## **The Lisbon Agenda 2005:**

**Economic Growth - Social Equilibrium - Environmental Quality.**

**Sustainable Development is the Guiding Principle for the European Union.**

**EU Policy Priority Issues for Sustainable Development:**

**Communication of European Commission to Council and Parliament COM (2005)658final**

**“On the Review of the Sustainable Development Strategy – a Platform for Action.”**

- **Management of Natural Resources:  
air, water, soil, forestry and agriculture.**
- **Climate Change and Clean Energy.**
- **Global Poverty and Development Challenges.**

*<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:354:0171:0200:EN:PDF>*