

# **L-8**

# **Environmental Policy**

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# 1. The problem

## 1.1 The environment is used in three ways:

1. as a consumption good
2. as a supplier of resources
3. as receptacle of wastes

# Externalities and Optimal outcome

1.2 Definition of externalities: spillover effects that generate benefits or inflict costs on others and are not properly reflected in market prices

1.3 Optimal outcome = where the marginal cost of pollution reduction equals the marginal benefit of pollution abatement

1.4 Government policies attempt to remove the divergence between private and social costs by:

- direct regulation
- use of standards

1.5 Pollution and environmental policy have an international dimension => international co-operation is essential for sharing the costs and eliminating the “free ride” on the policies

## 2. The EU and the environment

### 2.1 reasons for a Community environmental policy:

- ensure high standards of environmental quality
- differences between national environmental legislation could affect the operation of the common market by creating distortions in competition and placing technical barriers to trade
- pollution is not constrained within the borders of a country

# Environmental programs of the EU: from mitigation to prevention

## 2.2 Priority actions of the Fifth (1993-97) action programme:

1. promoting sustainable development and quality of the environment
  1. protecting habitats and nature
2. developing administrative structures to foster co-operation between member states about global environmental problems
3. promoting education, training and information
4. providing technical assistance to establish environmental policies outside the Community

## 2.3 Principles of Community policy:

1. preventive action should be taken
2. environmental damage should act as a priority to be rectified at source
3. the polluter should pay: “polluters pay principle”

## 2.4 Environmental policy is subject to the principle of subsidiarity

The EU act when Member States do not cover the problem or is more efficient the international action

### 3. Agriculture, transport and the environment

#### 3.1 Policies that can affect farmers' land use and production decisions:

- voluntary measures
- regulatory measures
- incentive-based measures
- Cross-compliance (for single payment qualification)



3.2 The CAP support policies have had negative spillover effects on the environment by raising farm output and land prices which:

1. encourage intensive cultivation and construction in rural areas
2. induce over-exploitation of land causing soil erosion
3. encourage high livestock density
4. stimulate the use of chemicals fertilizers and pesticides

### 3.3 External costs of transport:

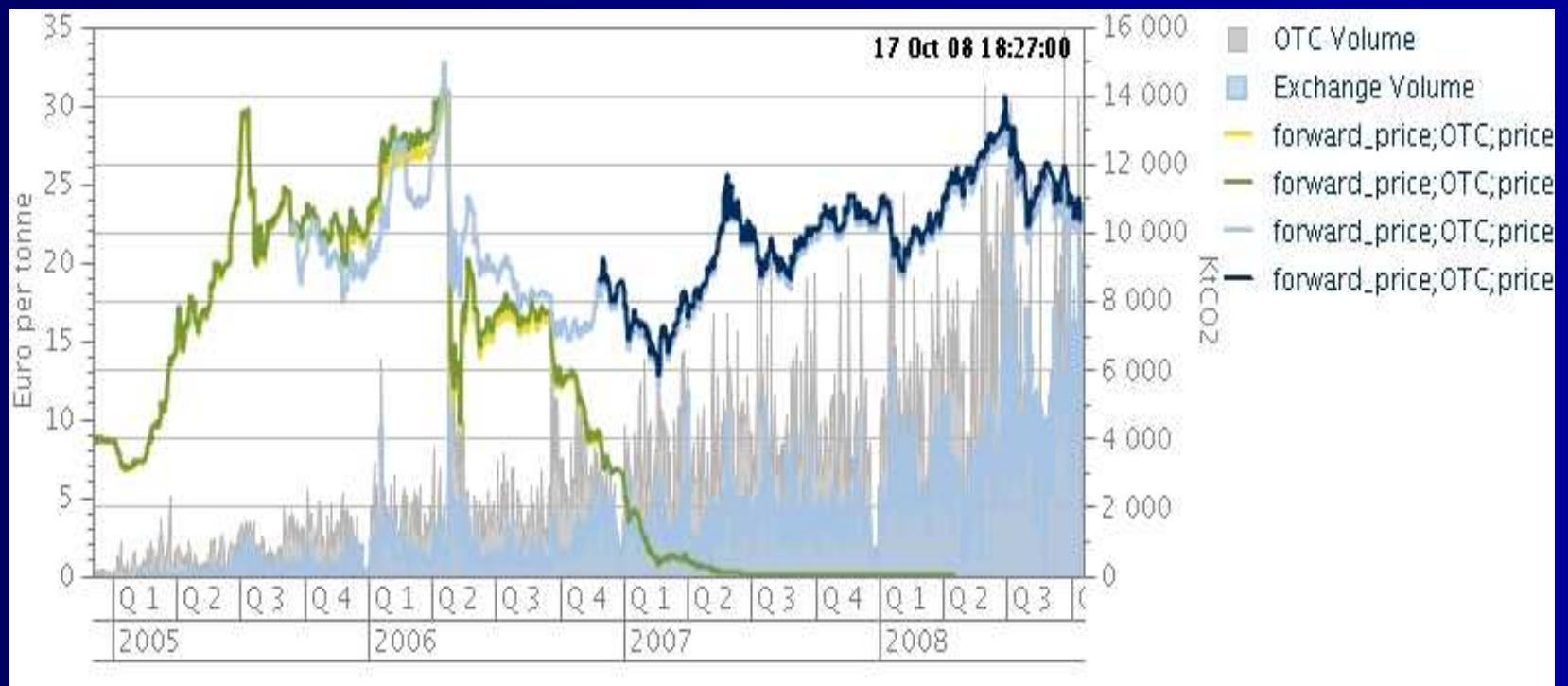
1. those experienced by other transport users (congestion and accidents)
2. those causing pollution (carbon dioxide and noise)
3. those affecting other sectors (land use)

# European Climate Exchange: emissions tradable quotas

- NAP: National Allocation Plans of CO<sub>2</sub> emissions
- Each plant is granted with a number of certificates
- Base on historical emission levels
- It accounts for early warning plans to reduce emissions, clean abatement technology, etc.

# European Emission Trade System: Price for CO<sub>2</sub> Tm

Green line: Stage I 2005-07; Blue: Stage II 2008-12; Gray/blue shadow: Trade volume



# Environment Indicators in the EU: Gases Emissions in 2015

## 4.1.1 GHGs Emissions (1995 = 100) 82,7

- Spain (1995 = 335,2 Mill. Tm CO<sub>2</sub> equiv.) **350,4**
- Germany (1995 = 1 135,7 Mill. Tm CO<sub>2</sub> equiv.) **926,5**

## 4.2.1 CO<sub>2</sub> per Capita (1995 = 100) **80,5**

- Spain (1995 = 6 925 Tm CO<sub>2</sub>) **6 165**
- Germany (1995 = 11 687 Tm CO<sub>2</sub>) **10 054**

- In spite of of the *per capita* German emission reductions still generates 63% more than the average Spaniard!

Source: EU ENERGY IN FIGURES 2017

[https://ec.europa.eu/energy/sites/ener/files/documents/pocketbook\\_energy\\_2017\\_web.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/pocketbook_energy_2017_web.pdf)

# European Climate Exchange

- “European Allowance Unit” = 1 CO<sub>2</sub> Tm of emissions
- Certificates can be directly purchased in the ECX (European Climate Exchange) in London
- Price fixed in the market oscillates around 15-30 €/Tm
- Penalty for emissions without a certificate = 100 € + 1 certificate/Tm

# Internal Energy Market

- In order to harmonise and liberalise the EU's internal energy market, three consecutive legislative packages of measures were adopted between 1996 and 2009, addressing:
  1. market access,
  2. transparency and regulation,
  3. consumer protection,
  4. supporting interconnection, and adequate levels of supply

# Internal Energy Market

- In February 2015 the Commission published a communication on the Energy Union package entitled:
- 'A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy'  
(COM(2015) 0080)\*.

\*1) ENERGY UNION PACKAGE [http://eur-lex.europa.eu/resource.html?uri=cellar:1bd46c90-bdd4-11e4-bbe1-01aa75ed71a1.0001.03/DOC\\_1&format=PDF](http://eur-lex.europa.eu/resource.html?uri=cellar:1bd46c90-bdd4-11e4-bbe1-01aa75ed71a1.0001.03/DOC_1&format=PDF)



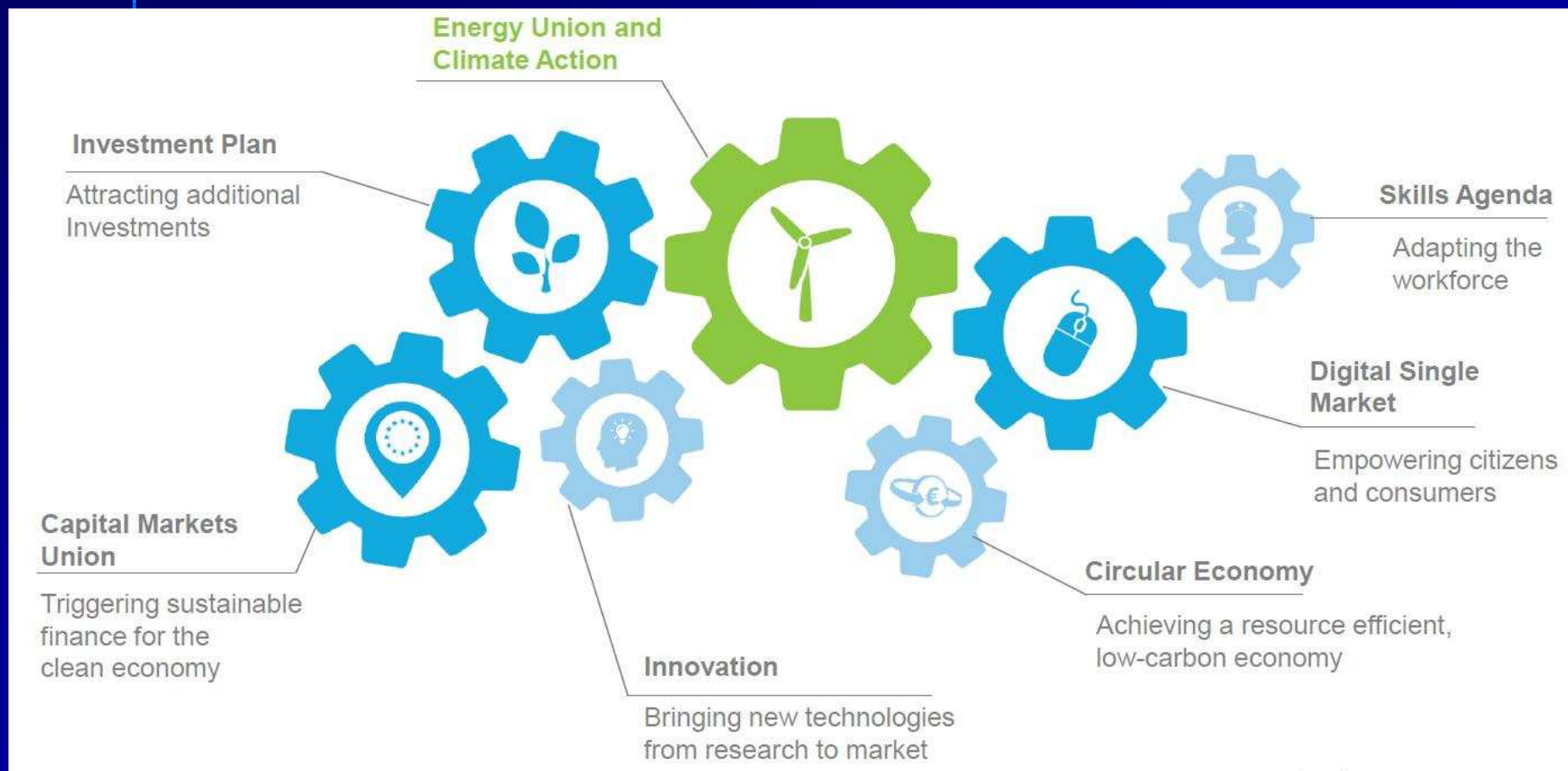
# Internal Energy Market

- The package states that the goal of the Energy Union is 'to give EU consumers — households and businesses — secure, sustainable, competitive and affordable energy'.
- The way forward to achieve these goals:
  - energy security, solidarity and trust;
  - a fully integrated European energy market;
  - energy efficiency → moderation of demand;
  - decarbonising the economy;
  - research, innovation and competitiveness.

# Internal Energy Market

- As announced in the Energy Union strategy, the Commission put forward a set of legislative proposals for a new EU energy market design on 30 November 2016.
- The 'Clean Energy for all Europeans'
- (COM(2016) 0860) package aims to implement the Energy Union and covers energy efficiency, renewable energy, the design of the electricity market, security of electricity supply and governance rules for the Energy Union.

# Strategy for a Resilient Energy Union



# Clean Energy for all Europeans

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- package aims to implement the Energy Union and covers:
  1. energy efficiency,
  2. renewable energy,
  3. the design of the electricity market,
  4. security of electricity supply and
  5. governance rules for the Energy Union.

\*<http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52016DC0860>

# Clean energy transition: EU ratification of the Paris Agreement, 4 October 2016

By mobilising up to an additional **177 billion euro of public and private investment** per year from 2021,

- this package can generate up to **1% increase in GDP** over the next decade
- create **900.000 new jobs**
- average the **carbon intensity** of the EU's economy will be **43% lower in 2030 than in 2016**
  - with **renewable electricity representing about half** of the EU's electricity generation mix
  - The **Paris Agreement** is the first of its kind and it would not have been possible were it not for the European Union. Today we continued to show leadership and prove that, together, the European Union can deliver (Jean-Claude Juncker, on the EU ratification of the Paris Agreement, 4 October 2016)

Source: **Clean Energy For All Europeans**-><http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52016DC0860>

# Commission's Work Programme for 2017

- The legislative proposals cover energy efficiency, renewable energy, the design of the electricity market, security of supply and governance rules for the Energy Union.
- The tabled package pursues three main goals:
  1. Putting **energy efficiency** first
  2. Achieving global **leadership in renewable** energies
  3. Providing a fair deal for consumers

# A Budget for Europe 2020'

(COM(2011) 0500),

- the Commission put forward a new mechanism, the **Connecting Europe Facility (CEF)**, for funding priority projects in the field of energy, transport and critical digital infrastructure from 2014 to 2020.
- In November 2013, Parliament endorsed the deal reached with the Council on the budget for the CEF, with EUR **5.12 billion** earmarked for the **development of trans-European energy infrastructure projects** (P7 TA(2013)0463).
- Several projects of common interest were selected for EU support, based on the energy infrastructure guidelines endorsed in March 2013 by the Council and Parliament (P7 TA(2013)0061).
- Including the **gasoduct conexión by the south** (Spain + Italy) with northern Africa (Tunisia & Libia)

# Check for facts in Environmental indicators in the EU

- Environmental indicators in the EU (Part 4 pp. 158-173)  
[https://ec.europa.eu/energy/sites/ener/files/documents/pocketbook\\_energy\\_2017\\_web.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/pocketbook_energy_2017_web.pdf)
- PART 5 Country Profiles