

Vision on the energy research of the Spanish EU Presidency



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GOBIERNO
DE ESPAÑA

MINISTERIO
DE CIENCIA
E INNOVACIÓN

Ciemat

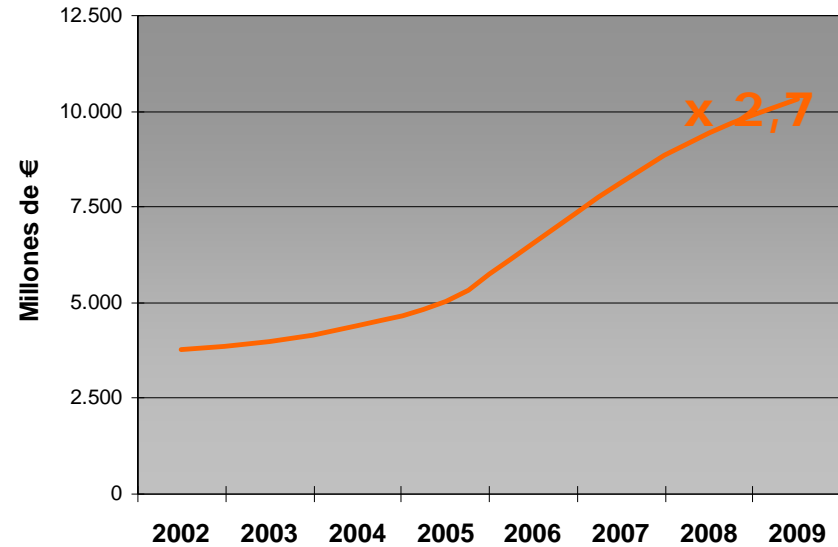
Centro de Investigaciones
Energéticas, Medioambientales
y Tecnológicas

Presidencia
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2010.es

R + D in Spain



National Budget in R&D (Spending Prog. 46)



International Publications
% Over World Scientific Production
National Patents Request
European Patents Request
SII (Summary Innovation Index)



43.000 Publications
3,2% World Science



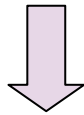
3.800 Patents
80% increase in european patents

Source: Thomson ISI, OEPM, EIS 2008

R + D in Spain

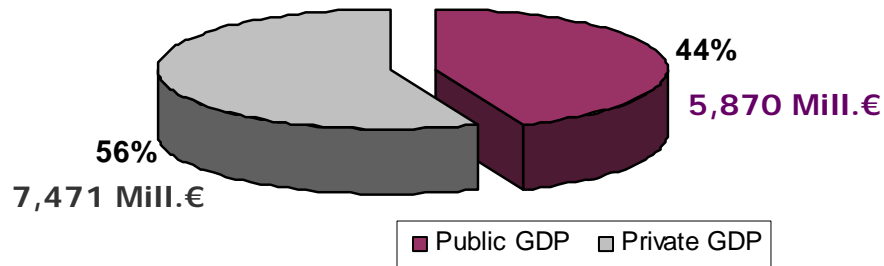
YEAR 2007

R&D as a % of GDP: 1,27%



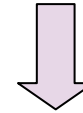
13,342 Mill. €

Source: INE



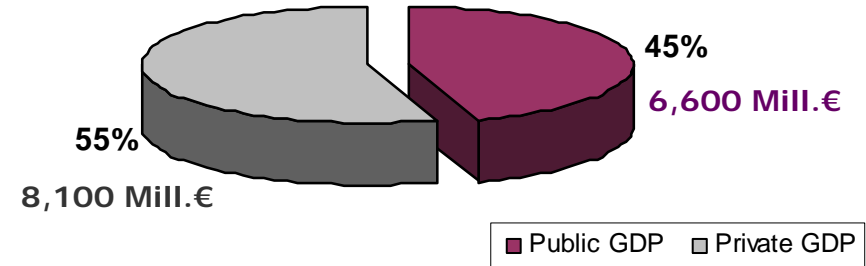
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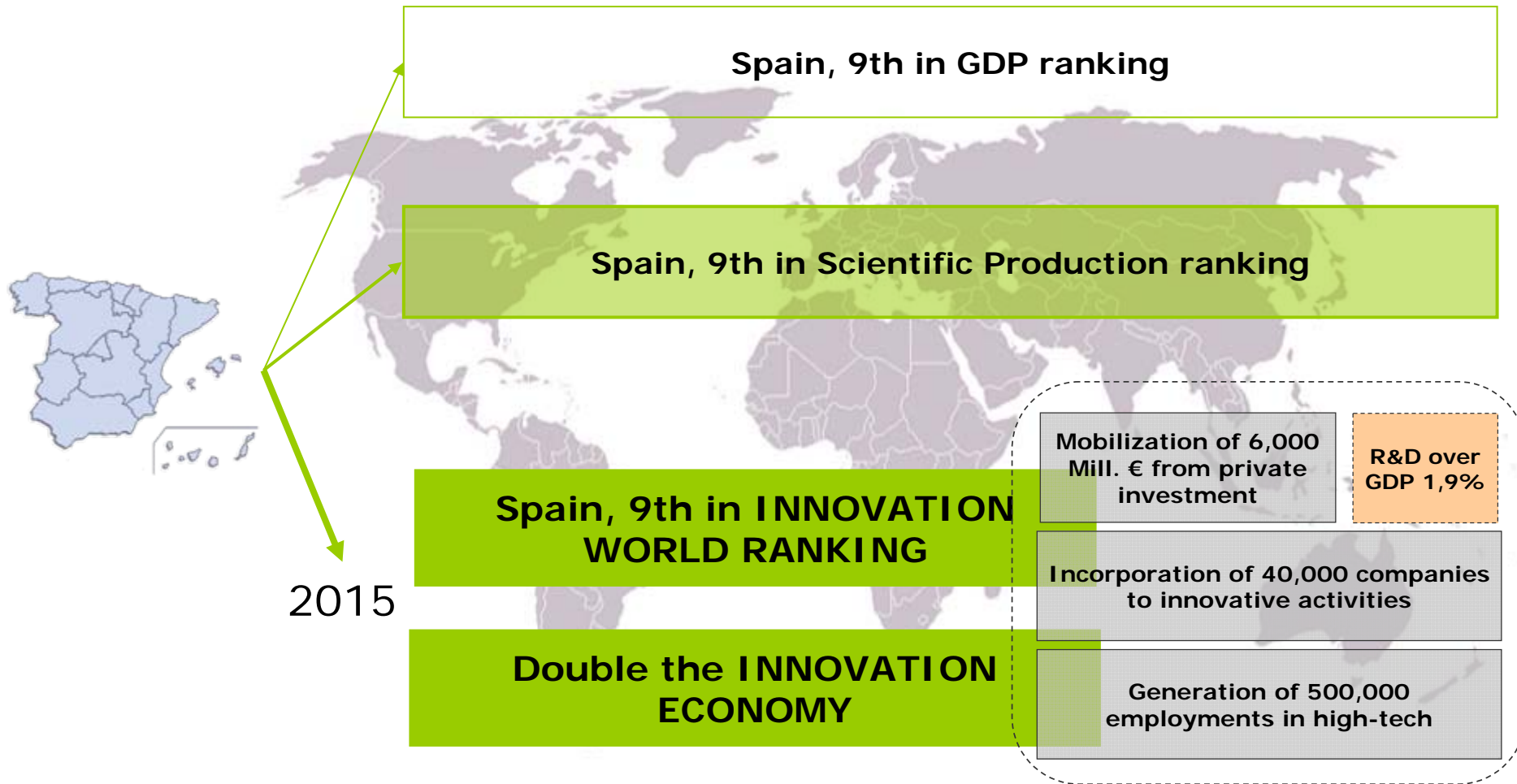
14,701 Mill. €

Source: INE



**629 Mill.€ have been mobilized from
2007 to 2008.**

Objectives for improvement



Spanish Presidency priorities 1

Energy Action Plan 2010-2014

Major political document during the Presidency establishing the energy policy for the coming years. Spring European Council

Promotion of a secure energy supply

a) Security of gas supply

b) Instrument for security and infrastructure

Infrastructures remain a key element of the European Energy Policy and constitute a clear barrier for the development of the Internal Market and the security of supply (i.e. interconnections)

Spanish Presidency priorities 2

SET-Plan

Adoption of conclusions on the communication “Investing in the development of Low Carbon technologies. Financing. Launching of the three first Industrial Initiatives. SET-Plan Conference in June

Mediterranean Solar Plan (MSP) within EUROMED framework

Great potential profile of industry and technology of European Renewable Energy. Conference in May (Valencia) and Summit Union for de Mediterranean/Euromed in June (Barcelona)

Spanish Presidency priorities 3

Directive on Renewable Energy. National Action Plans (2010-2020 in Spain, in preparation)

Energy Efficiency Action Plan

Broad lines for the new proposal to be adopted on the next Presidency

Vision towards 2030-2050

Radioactive waste management

Electrical vehicle

And smart grid in the general aim of promoting low carbon energy sources

SET-Plan and Spanish Presidency

Summit Conference in June, Madrid

Main objective: Formally establish and launch the EIIs

Two steps: Most mature EIIs (Wind, Solar and Networks) to be launched during the Spanish Presidency term and other less mature (nuclear and bioenergy) to be prepared and launched under the Belgian Presidency in November 2010.

Establishment of the formal procedures related to the EIIs:

One joint declaration per EII. Governance structure (Steering Group, EII Team and projects)

Financing definition

Public: EU FPs + National Programs

Private: Industry co-financing

Research priorities (CIEMAT involved) 1

CCS: Coal plant in León (CIUDEN) in the framework of the European demonstration plants program

CENIT (Endesa coord.)

Wind: WindLider (off shore, Gamesa coord.)

SA2VE (storage, Tekniker coord.)

Small wind (CIEMAT coord.)

Biomass: Energetic crops (CIEMAT coord.)

Bioethanol from organic waste Pilot plant in Valencia (CIEMAT coord.)

Biomass gasification

Energy efficiency: ARFRISOL (Buildings and solar cooling)

Electrical vehicle

Research priorities (CIEMAT involved) 2

PV: Advanced concepts in PV cells: concentration,
new materials

CSP: Direct Steam Generation pilot plant in Puertollano

More advanced transfer fluids

Thermal Storage (molten salts and new materials)

New central receivers (molten salts and atmospheric air)

Applications to desalination and detoxification

Fission: Management of radioactive waste

ADS (Eurotrans)

Fusion: ITER (Fusion for Energy, Barcelona)

Broader Approach

Infrastructures

ICTS map (Singular Scientific and Technological Infrastructures)

Energy research is the objective in 7 out of 56 ICTS:

- Wind Turbine Test Laboratory (CENER, Navarra)
- Stellerator TJ-II (CIEMAT)
- CTAER, Renewable energy (Andalucía)
- Techno-Fusion (Madrid)
- Biofuels (Navarra)
- Solar Platform of Almería (CIEMAT)
- Hydrogen technologies and fuel cells (Ciudad Real)

There are other proposals, mainly in renewables

Legislative proposals

Buildings energy efficiency directive

Eco-labelling directive

Regulation of gas security

Transparency in financial markets dealing with wholesale energy

Internal market

Directive on safe management of nuclear waste and spent fuel

Notification on projects of common interest (oil, gas and electricity)