

# EU - BUILDING AN INNOVATION UNION

**Presentation to CPU/CLORA**

**November 10, 2010**

**Marcin SADOWSKI**  
DG RTD



**EUROPEAN  
COMMISSION**



# Globalisation of knowledge

## Declining EU share of knowledge production

*Evolution of World R&D expenditure in real terms, PPS€ at 2000 prices and exchange rates, 1995-2008*

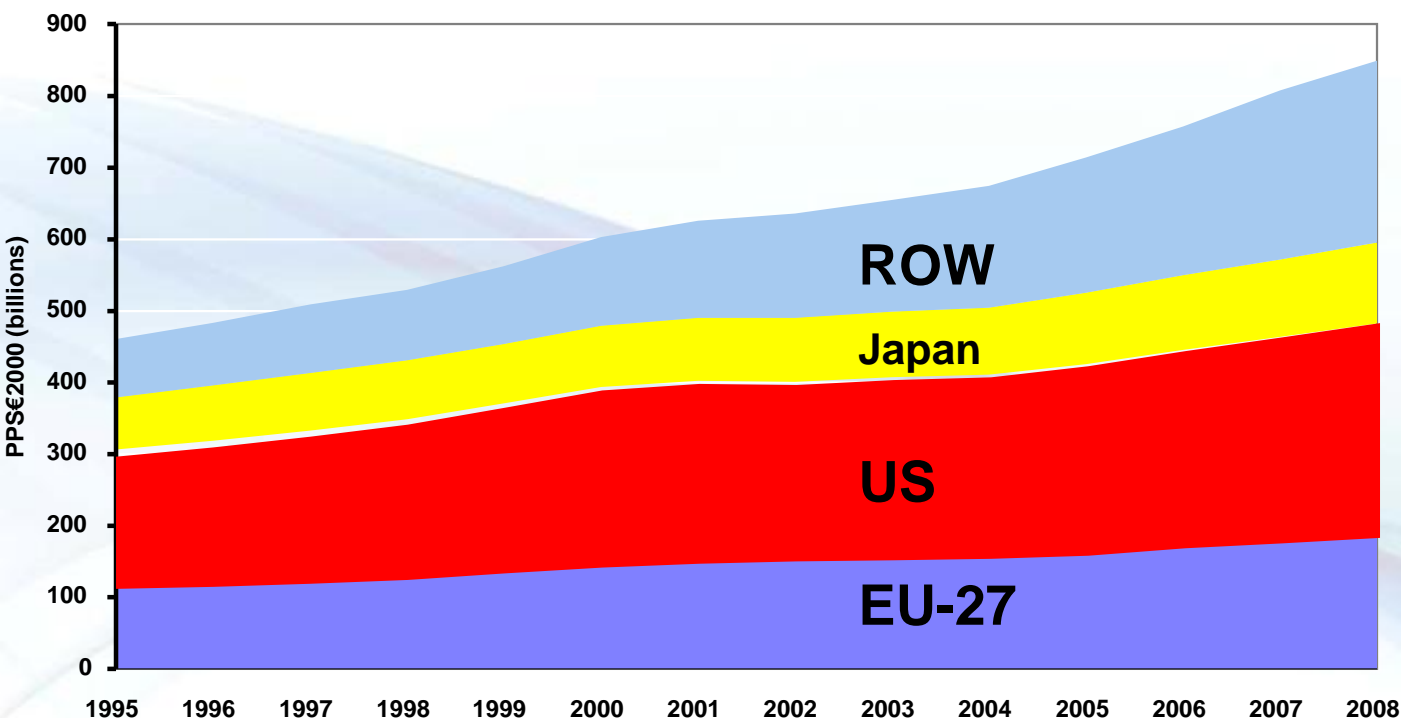
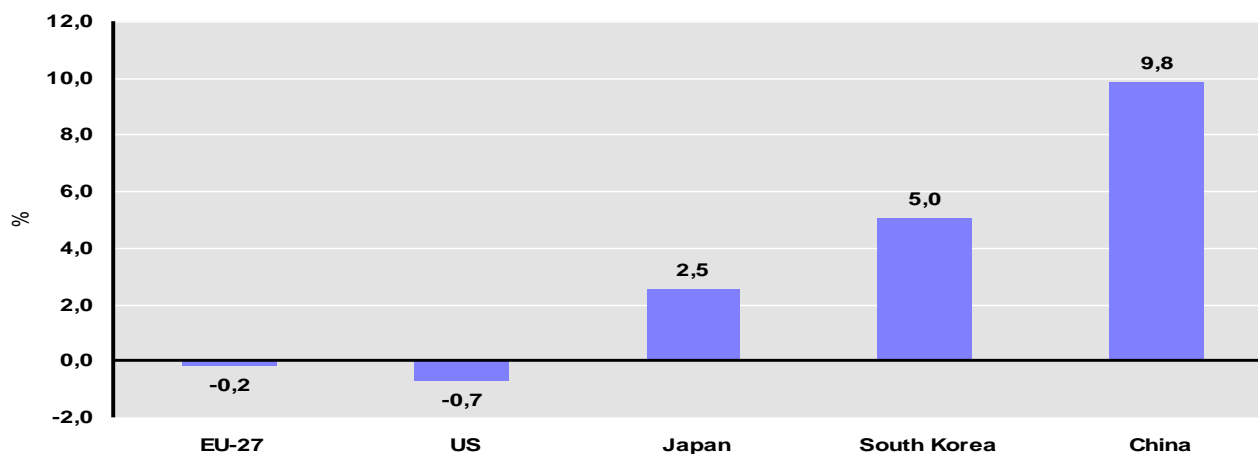


Figure Private Expenditure on R&D as % of GDP <sup>(1)</sup> - average annual growth (%) in the major economies, 2000-2007 <sup>(2)</sup>



## Stagnating business R&D

*Average annual growth as % of GDP, EU-27, US, Japan, South Korea & China, 2000-2007*



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# Economic and financial crisis

EU lost **six million jobs**, **1000 Bn € annual GDP** due to crisis

→ **Invest in future growth**

EU target of **3% of GDP for R&D** in 2020 could create a net **3.7 million jobs** and close to **800 Bn € annual GDP** by 2025

→ **Make the most of available resources**

through leverage effects, integration and cooperation





# Societal challenges

- Climate change
- Health and ageing
- Use of natural resources
- Energy security
- Clean transport
- Land use
- ....

- Powerful **drivers of change** in economy and society
- Major **global market opportunities**
- Requiring **EU-scale approaches**
- From **research to market**

**New needs → new ideas → new markets**



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# RECOVERING FROM THE CRISIS...

## ***EUROPE 2020: A EU strategy for smart, sustainable and inclusive growth***

### 3 priorities:

- **Growth based on knowledge and innovation**

- Innovation
- Education
- Digital society

- **An inclusive high-employment society**

- Employment
- Skills
- Fighting poverty

- **Green growth: a competitive and sustainable economy**

- Combating climate change
- Clean and efficient energy
- Competitiveness



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# Why Innovation Union?

A cornerstone of **Europe 2020** strategy

Three aspects:

- **Globalisation** of knowledge production and innovation capacities
- Impact of the **crisis** on public and private finance, survival of innovative SMEs
- **Major challenges** to address with reduced means

→ ***Innovation emergency!***



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# What is Innovation Union?

## Strategic approach

- **Partnership** with Member States
- Whole chain of innovation: from **blue sky to market**

## Tackling weaknesses

- **Under-investment**
- **Fragmentation**
- **Framework conditions**

## Building on strengths

- Focus on **societal challenges**
- **Broad concept** of innovation
- Involving **all actors**

→ **A distinctive European approach to innovation**



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# **Key measures of Innovation Union**

- 1. Strengthening the knowledge base and reducing fragmentation**
- 2. Getting good ideas to market**
- 3. Maximising social and territorial cohesion**
- 4. European Innovation Partnerships**
- 5. International cooperation**





# Strengthening the knowledge base

Knowledge base

Good ideas to market

Cohesion

Innovation  
Partnerships

International  
cooperation

- **Education and skills**

- Europe needs at least **one million more researchers**
- **Universities** need reform and closer links with business to train top talents for innovation jobs
- Independent **ranking system** to benchmark universities (2011)

- **European research area (ERA)**

- **Fragmentation and overlaps** between national R & I systems
- **Huge complexity** of support system with myriad of funding schemes with different rules and timetables
- **ERA framework (2012)** to remove cross-border obstacles by 2014
- Including coherence of overall support system

- **EU financing instruments**

- **Too many instruments** pursuing different objectives
- **Complexity of access**, particularly for SMEs
- **Focus, streamlining and radical simplification** of funding schemes by 2014



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# Simplification

Knowledge base

Good ideas to market

Cohesion

Innovation  
Partnerships

International  
cooperation

- **Streamlining proposal and grant management under the existing rules**
  - User support, guidance, transparency, IT tools and processes
  - Optimising the structure and timing of calls for proposals
  - Adapting sizes of consortia
  - More extended use of prizes
- **Adapting the rules under the current cost-based system**
  - Broader acceptance of usual accounting practices
  - Average personnel costs
  - Limiting the variety of rules
  - Interest on pre-financing
  - More lump sum elements in the current cost-based approach
  - Accelerating project selection
- **Moving towards result-based instead of cost-based funding**



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# Getting good ideas to market

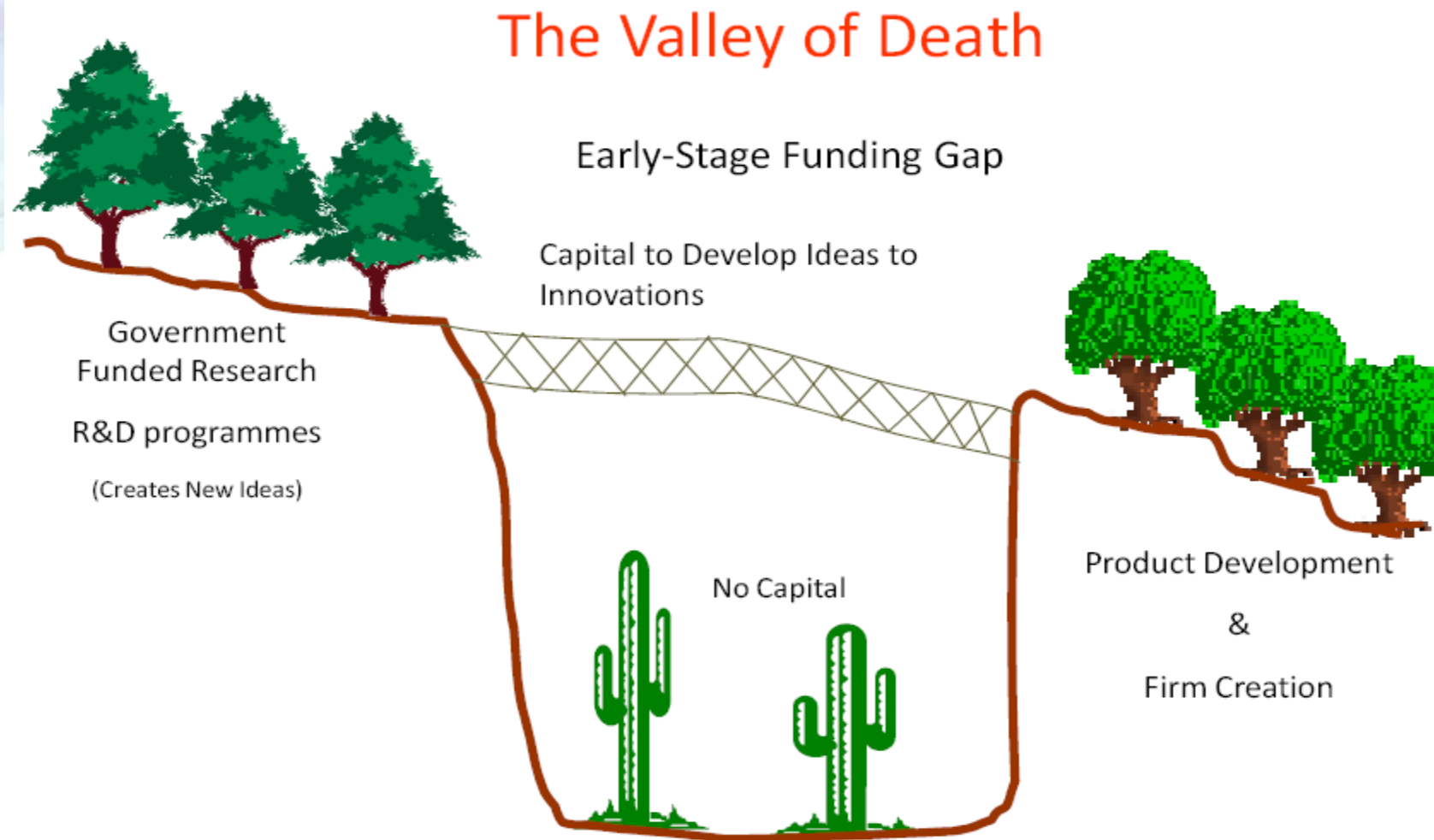
Knowledge base

Good ideas to market

Cohesion

Innovation  
Partnerships

International  
cooperation



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# Getting good ideas to market

Knowledge base

Good ideas to market

Cohesion

Innovation  
Partnerships

International  
cooperation

- **Access to finance**

- **Few European SMEs grow** into major companies
- **Lack of finance** is a major cause
- **Crisis** made situation worse
- **New generation of financial instruments** with EIB (2014)
  - high leverage (15+)
  - addressing market gaps from venture capital to major innovation projects.



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION



# Getting good ideas to market

Knowledge base

Good ideas to market

Cohesion

Innovation  
Partnerships

International  
cooperation

- **Single innovation market**

- Lack of **EU Patent**: Council called to agree by end 2010
- Slow **standard setting**
- **Public procurement** (17% of GDP) not geared to innovative products and services
- **Reform standardisation system** (2011)
- **Support procurers to set budgets for innovation** (2011)  
Target at least 10 Bn €



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# Getting good ideas to market

Knowledge base

Good ideas to market

Cohesion

Innovation  
Partnerships

International  
cooperation

- **Openness and creative potential**
  - Growing importance of **open innovation**
  - **Dormant knowledge and intellectual property**
  - **Open access** to become default principle for publications from EU Research Framework Programme
  - Develop **European knowledge market** (2011) based on national experiences (e.g. patent pools)



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# Maximising social and territorial cohesion

Knowledge base

Good ideas to market

Cohesion

Innovation  
Partnerships

International  
cooperation

- Avoid an « **innovation divide** »
- Make best use of **86 Bn € Structural Funds** earmarked for research and innovation until 2013
- Support Member States and regions to use Structural Funds with **smart specialisation strategies** (2011)
- **Social innovation** pilot programme (2011)



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# European Innovation Partnerships

Knowledge base

Good ideas to market

Cohesion

**Innovation  
Partnerships**

International  
cooperation

- Major **societal challenges** require **joint responses** across policies and across EU
- Numerous **sub-critical, uncoordinated initiatives**:
  - between EU / Member States / Regions
  - R&D / Market-side actions (public procurement, standards, regulation)



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION



# European Innovation Partnerships

- **European Innovation Partnerships are Frameworks, bringing together main actors and actions :**
  - At EU and national levels
  - From research to market
  - Around common objectives and targets

Knowledge base

Good ideas to market

Cohesion

Innovation  
Partnerships

International  
cooperation



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# European Innovation Partnerships

Knowledge base

Good ideas to market

Cohesion

Innovation  
Partnerships

International  
cooperation

## 2010

- **Council, Parliament** to discuss concept
- **Member States** and **stakeholders** invited to join
- Preparation of **pilot on active and healthy ageing**  
(Aim: two additional healthy life years by 2020)

## 2011

- **Others to follow** pending discussions and building on experience with pilot
- **Topics considered:** smart cities, mobility, water, raw materials, agriculture



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# International cooperation

Knowledge base

Good ideas to market

Cohesion

Innovation  
Partnerships

International  
cooperation

- Europe's **openness is not always reciprocated**
- **Global challenges** require a global response
- **Joint EU / national priorities** for cooperation with third countries (2012)
- **Agree international infrastructures** with world partners (2012)



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

# Making it happen!

## A priority for EU Institutions

- **European Council** dedicated meeting in December

## Accelerating national reforms

- **Self assessments of R&I systems** under Europe 2020

## Tracking progress

- EU target of **3% of GDP** on R&D and **national targets**
- New indicator on **fast-growing innovative firms**
- New **Scoreboard** of 25 indicators





# Get involved

Innovation Union website

<http://ec.europa.eu/research/innovation-union/>

Innovation Union Facebook page

<http://www.facebook.com/Innovation.Union>

Innovation unlimited blog

<http://blogs.ec.europa.eu/innovationunlimited>



EUROPEAN  
COMMISSION

EU - BUILDING AN  
INNOVATION UNION

**Thank you**



**EUROPEAN  
COMMISSION**

**EU - BUILDING AN  
INNOVATION UNION**