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

Stagnating business R&D

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

- **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
Simplification

• 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
Getting good ideas to market

Knowledge base

Good ideas to market

Cohesion

Innovation

Partnerships

International cooperation

The Valley of Death

Early-Stage Funding Gap

Capital to Develop Ideas to Innovations

Government Funded Research

R&D programmes

(Creates New Ideas)

No Capital

Product Development & Firm Creation

EU - Building an Innovation Union
Getting good ideas to market

- **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.
Getting good ideas to market

- **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 €
Getting good ideas to market

- 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)
Maximising social and territorial cohesion

- 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 Innovation Partnerships

- 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 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 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
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)
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
Thank you