



Results of the ERAC 2013 Survey on R&D and innovation investments and policy measures

ERAC meeting

10-11 October 2013

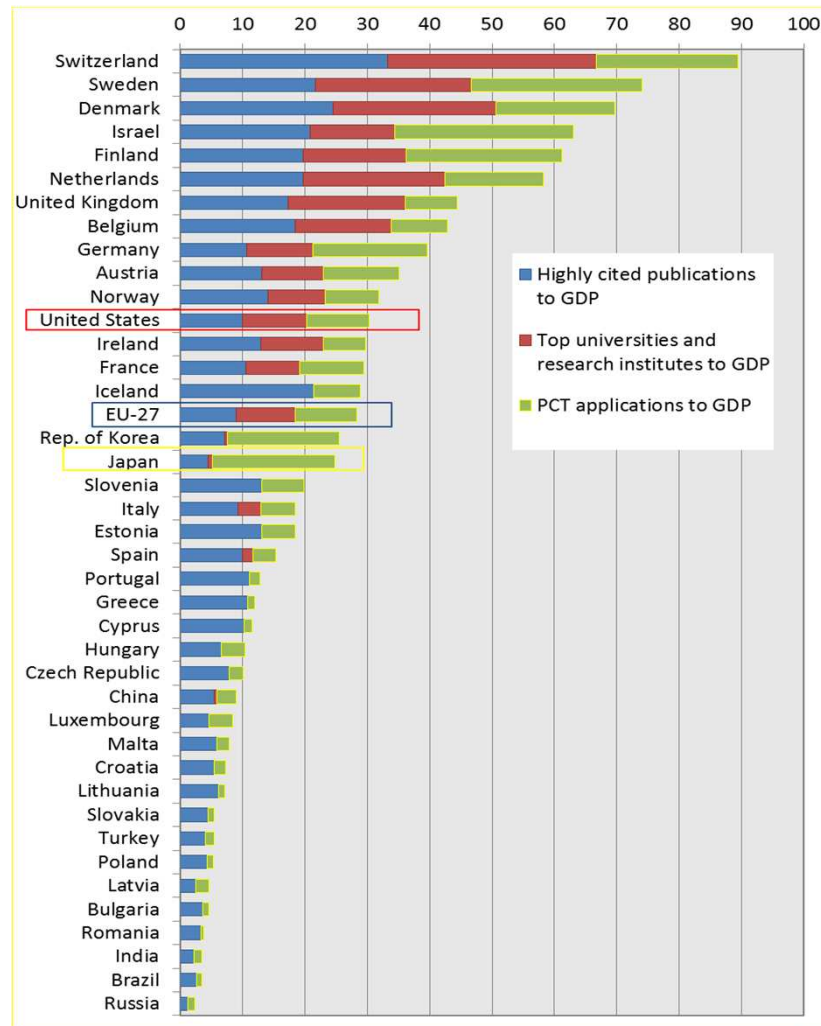
Vilnius

Pierre Vigier

DG Research and Innovation

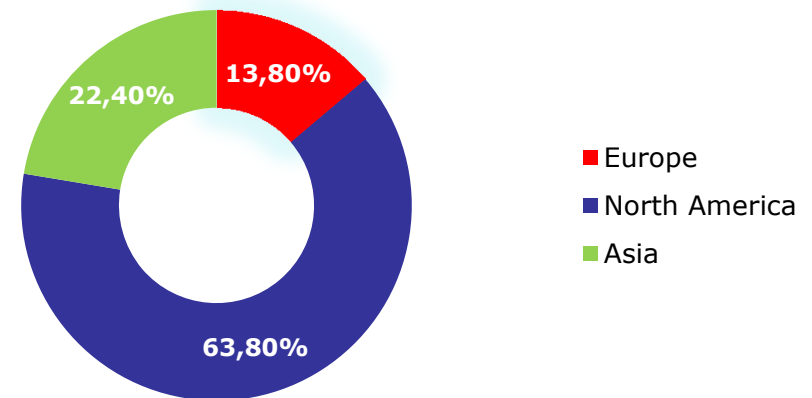
Economic analysis unit

EU has many science assets ...

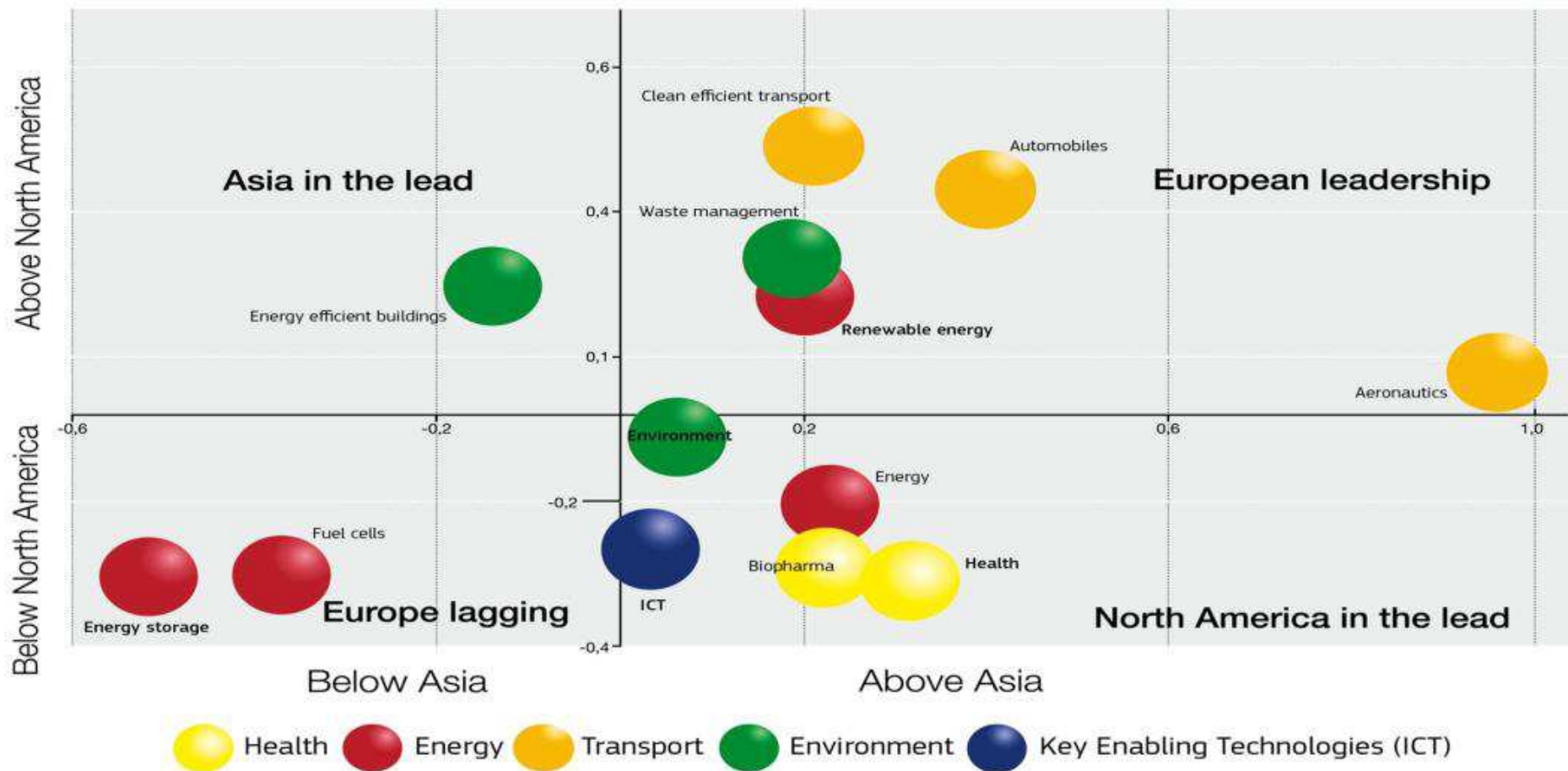


... yet it lacks the critical mass to become a global leader

Citations in top 10% science journals

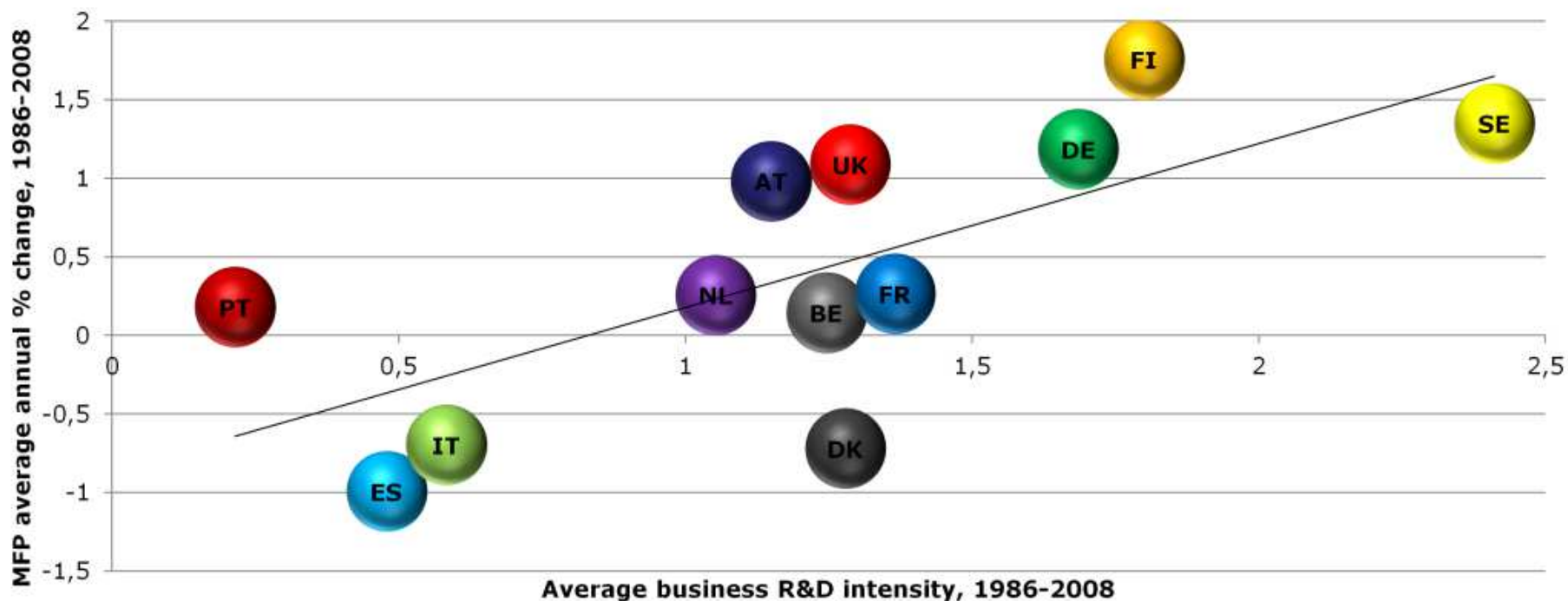


Europe must seize tomorrow's markets



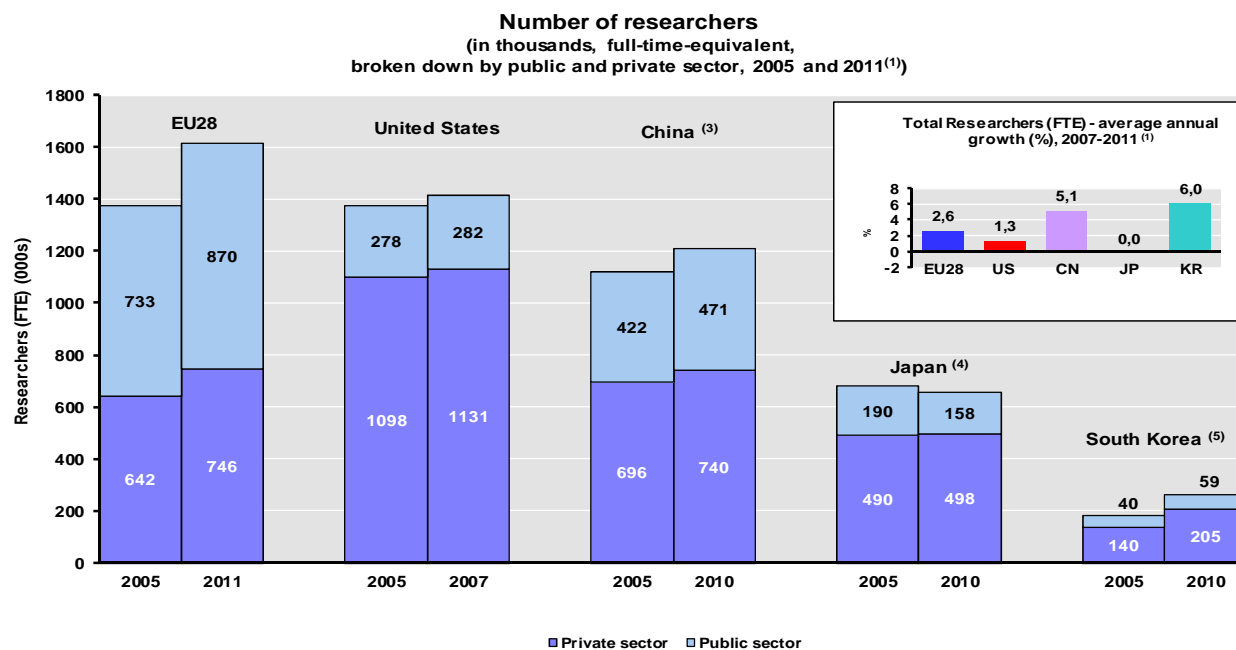
Investing in knowledge creates smart growth

Business R&D intensity and multi-factor productivity growth, 1986-2008



Note: The size of the bubbles represents the share of EU GDP 2008 calculated from GDP in current PPS
 Source: Dan Andrews & Chiara Criscuolo, 2013. "Knowledge-Based Capital, Innovation and Resource Allocation", OECD Economics Department Working Papers 1046, OECD Publishing.

Number of FTE researchers private and public



Source: DG Research and Innovation - Economic Analysis Unit
Data: Eurostat, OECD

Innovation Union Competitiveness Report 2013

Notes: (1) US: 2007; JP, CN, KR: 2010.

(2) US: 2005-2007; KR: 2007-2010; JP: 2008-2010; CN: 2009-2010.

(3) CN: There is a break in series between 2009 and the previous years.

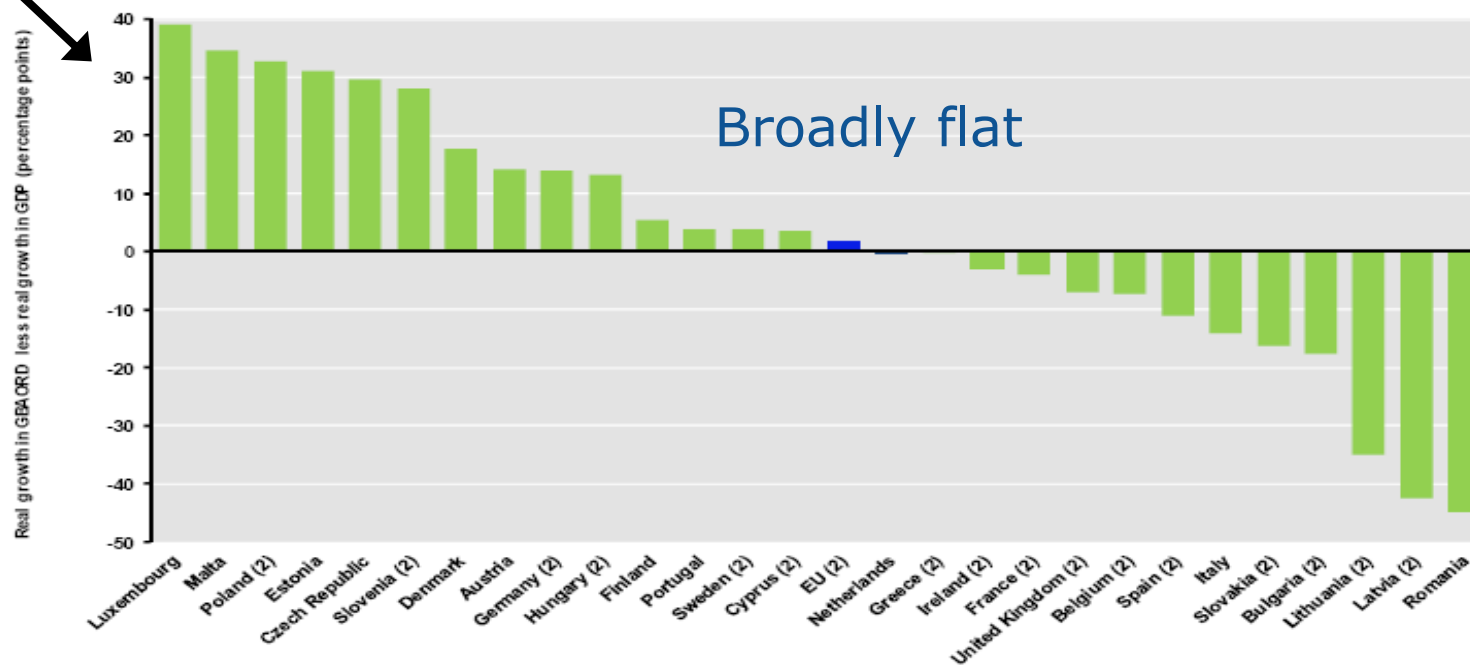
(4) JP: There is a break in series between 2008 and the previous years.

(5) KR: There is a break in series between 2007 and the previous years.

We must protect R&D spending

Increasing

Government investment in the future
The difference in percentage points between real growth ⁽¹⁾ in Government budgets for R&D (GBAORD⁽²⁾) and real growth ⁽¹⁾ in GDP, 2008-2012 ⁽³⁾



Decreasing

Source: DG Research and Innovation - Economic Analysis Unit

Data: Eurostat

Notes: (1) Real growth was calculated from values in PPSE at constant 2000 prices and exchange rates.

(2) Foregone tax revenues resulting from R&D tax incentives are not included.

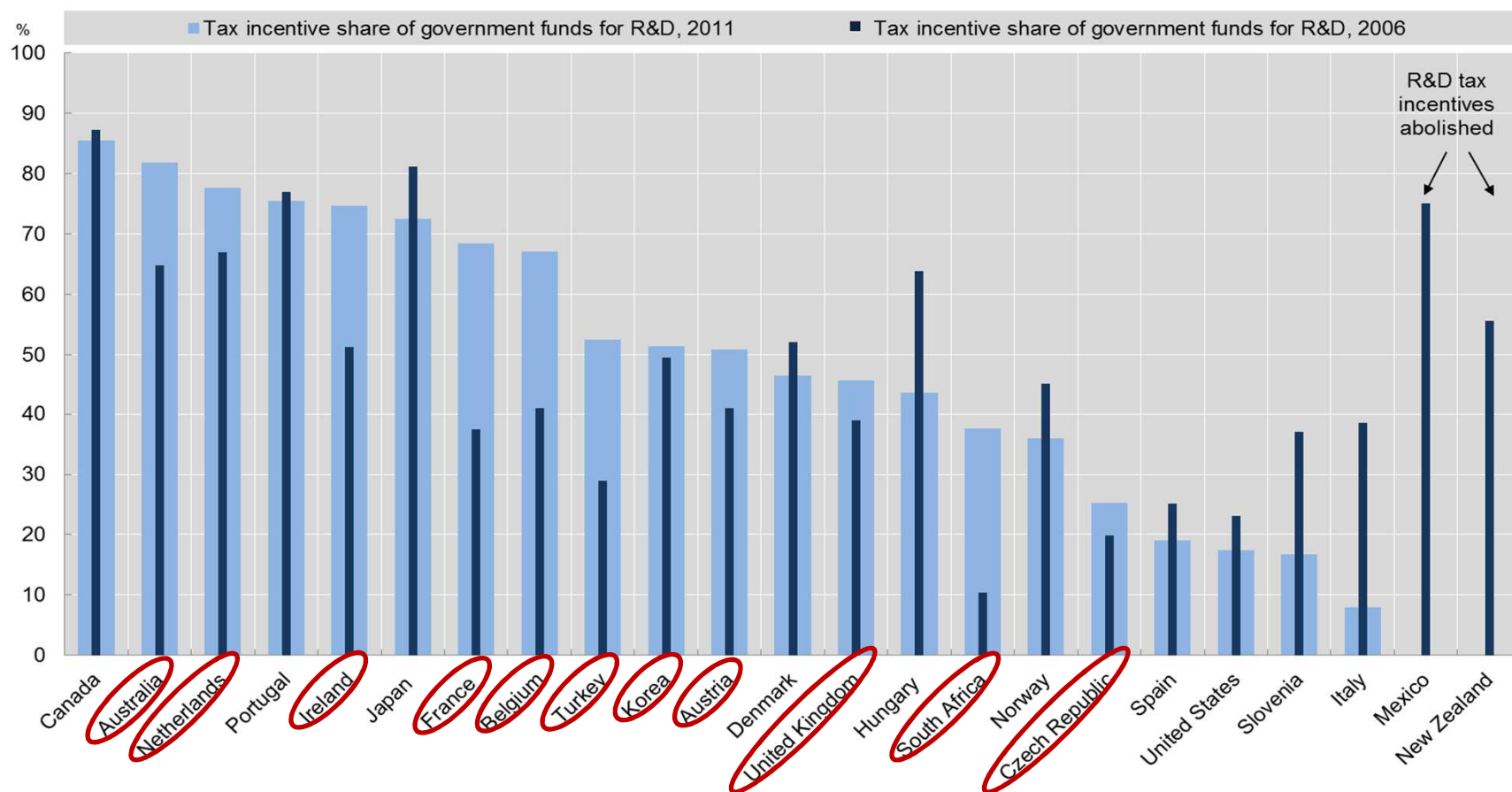
(3) EL: 2007-2008; PL: 2009-2011; BE, BG, DE, IE, ES, FR, CY, LV, LT, HU, SI, SK, SE, UK, EU: 2008-2011;

(4) Data for 2012 are provisional.

Findings of the 2013 OECD STI Scoreboard 2013 (1/2)

What are the trends?

Change in government support of business R&D through direct funding and tax incentives, 2006-11
7 out of 13 Member States increased the share of tax incentives to support BERD



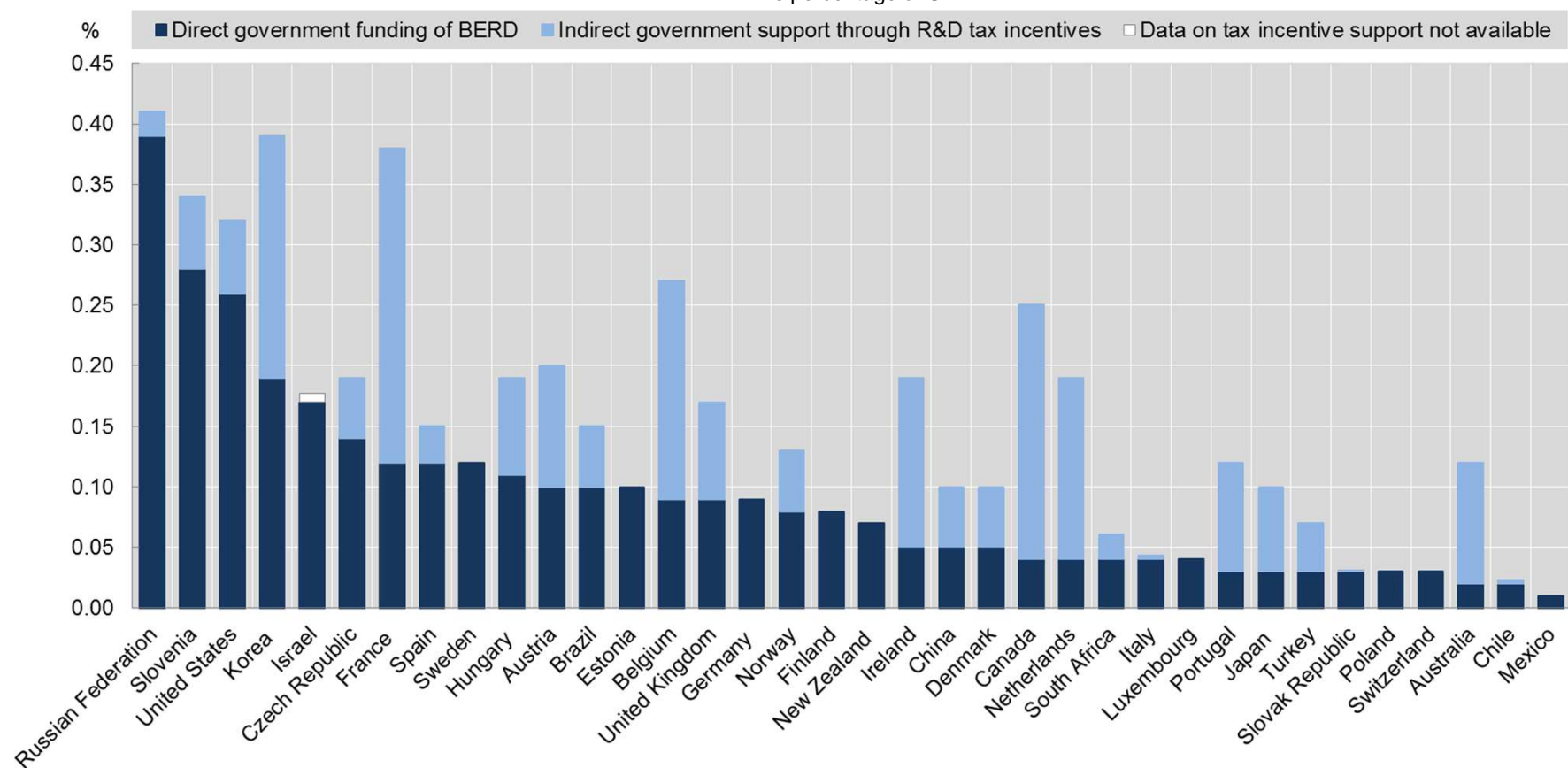
Source: OECD STI Scoreboard 2013
 – forthcoming 23 October 2013

Findings of the 2013 OECD STI Scoreboard 2013 (2/2)

(forthcoming 23 October 2013)

Government support of business R&D, 2011: direct funding and R&D tax incentives

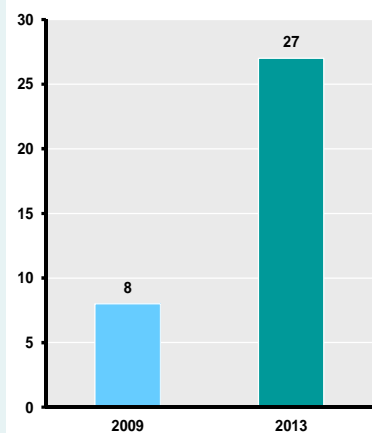
As percentage of GDP



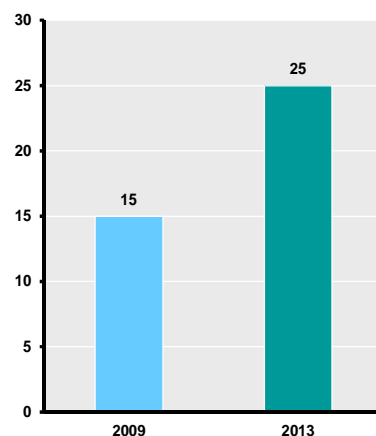
Policy measures – main conclusions 2009-2013

A sharp increase of the number of countries incentivising private R&I investment, notably for SMEs

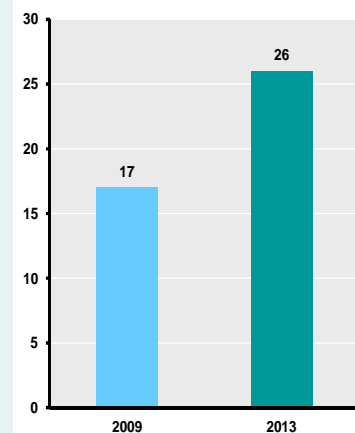
ex. grants specifically for SMEs or enterprises of intermediate size:



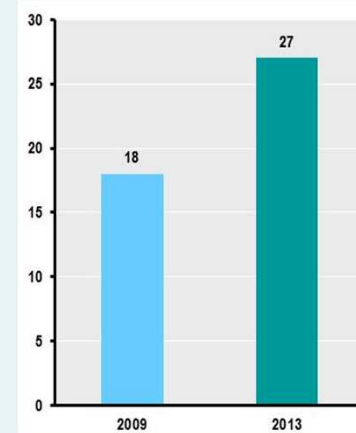
A noticeable increase of the number of countries using R&D tax incentives



A growing number of countries introducing measures to support key industrial sectors or to address key societal challenges in particular through PPPs



A growing number of countries introducing measures aimed to maintain or increase human resources in STEM





Main conclusions of the 2013 survey (spending trends 2011-2013/2014)

Strong diversification between Member States spending trends:

11 Member States expect an increase of their public spending in 2013 (compared to 2012) while 9 Member States expect their R&D spending to decrease. No information available for 7 Member States. 1 Member State keeps its spending level constant.

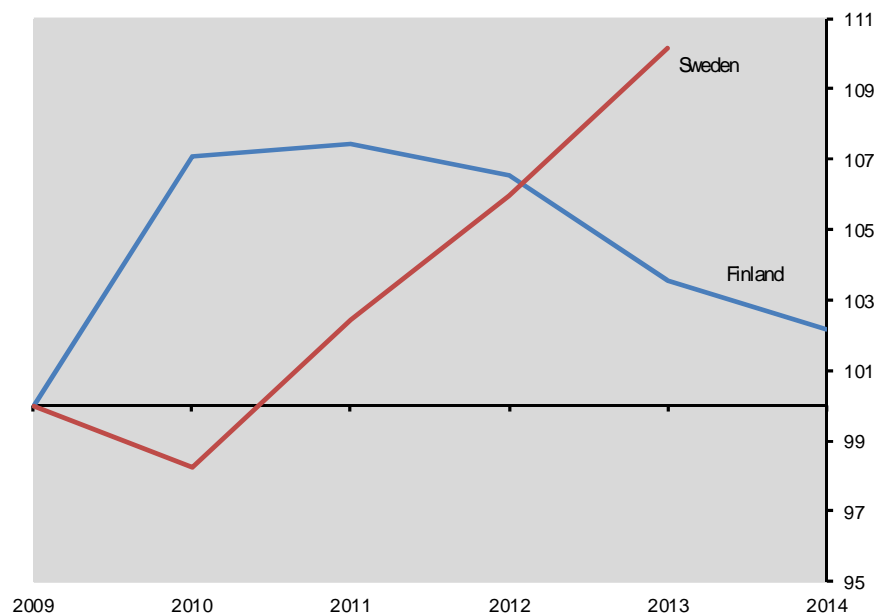
Most Member States with a high and medium-high R&D intensity are further increasing their R&D budgets with exception of Finland.

Member States with a medium and medium-low R&D intensity present a mixed picture. A majority is reducing considerably spending on R&D but 1/3 have been increasing it.

Most of Member States with a low R&D Intensity, even those which experienced fluctuations of spending on R&D during the period 2011-2014(2013) have increased their public spending on R&D with exception of Lithuania, Croatia and Malta.

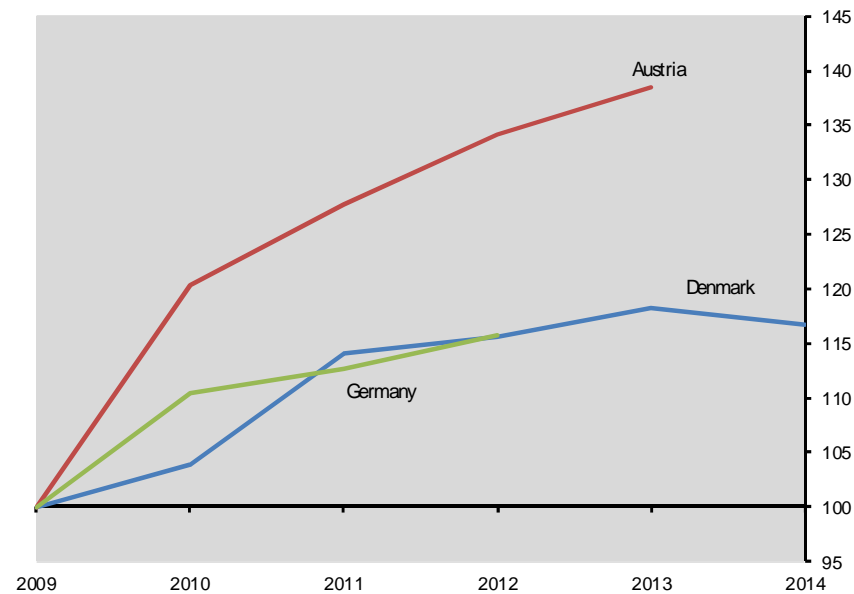
Member States R&D intensity groups 1 and 2

Evolution of Governmental R&D Budget 2009-2014 within the group 1: (2009=100)
Group 1: High R&D intensity Member States (>3.4%)



Source: DG Research and Innovation - Economic Analysis unit
Note: Not counting foregone tax revenues due to R&D tax incentives. The effect of new R&D tax incentives in Finland will be valid in 2013-2014.

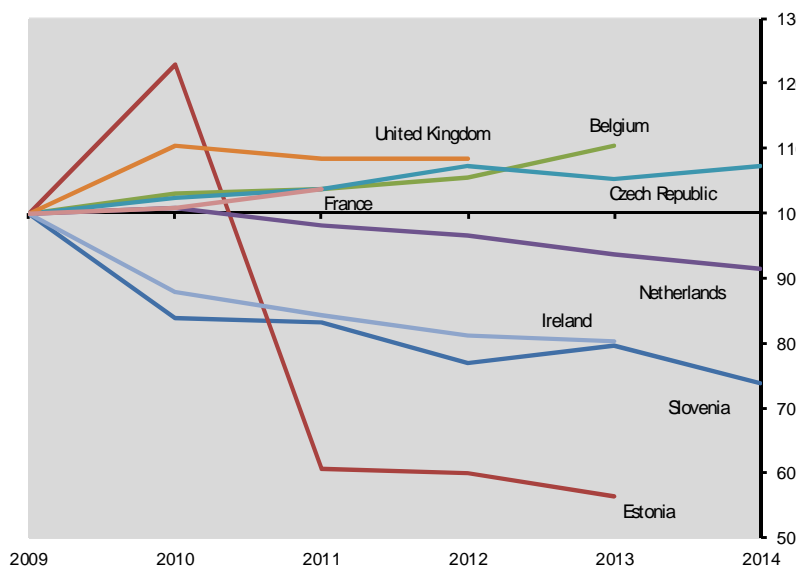
Evolution of Governmental R&D Budget 2009-2014 within the group 2: (2009=100)
Group 2: Medium-high R&D intensity Member States (2.5% to 3.4%)



Source: DG Research and Innovation - Economic Analysis unit
Note: Not counting foregone tax revenues due to R&D tax incentives. In the survey Austria reports on foregone tax revenues due to R&D tax incentives since 2011.
DK: Data for 2010 are from the 2011 survey.

Member States R&D intensity groups 3 and 4

Evolution of Governmental R&D Budget 2009-2014 within the group 3: (2009=100)
Group 3: Medium R&D intensity Member States (1.6% to 2.5%)



Source: DG Research and Innovation - Economic Analysis unit

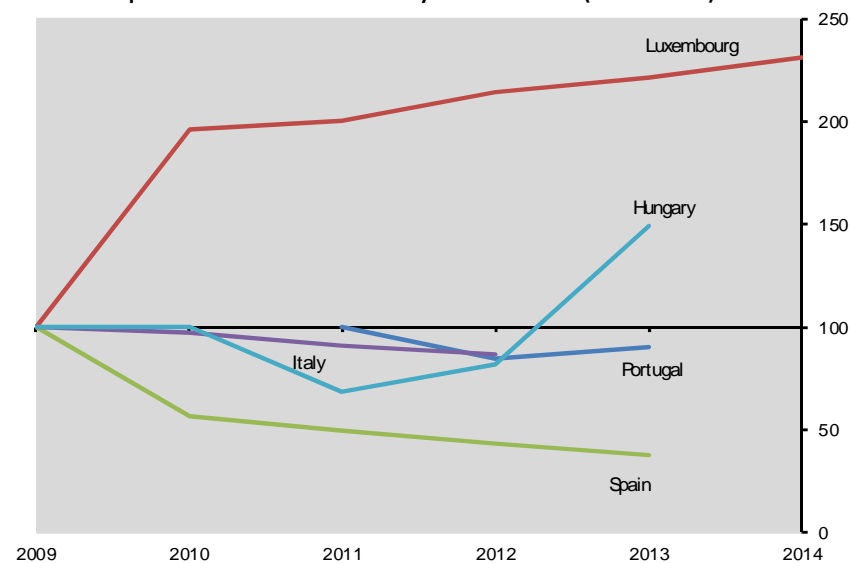
Notes: (1) Not counting foregone tax revenues due to R&D tax incentives.

In the survey Netherlands reports on foregone tax revenues due to R&D tax incentives for 2011-2014, Belgium for 2011-2013, UK and Czech Republic for 2011.

(2) FR: data for 2009 is from the 2010 survey and data for 2011 is from 2012 survey.

BE: data for 2009 is from 2010 survey.

Evolution of Governmental R&D Budget 2009-2014 within the group 4: (2009=100)
Group 4: Medium-low R&D intensity Member States (1.0% to 1.6%)



Source: DG Research and Innovation - Economic Analysis unit

Note: (1) Not counting foregone tax revenues due to R&D tax incentives.

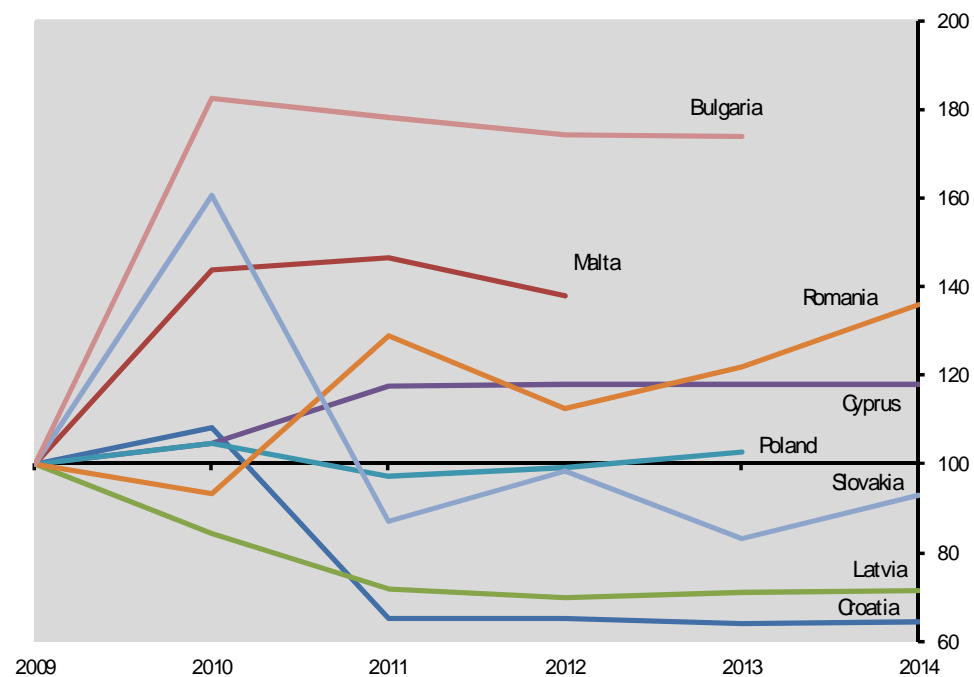
In the survey Italy and Spain report on foregone tax revenues due to R&D tax incentives for 2011-2013, Hungary for 2011-2012 and Portugal for 2011.

(2) HU: data for 2010 is from 2011 survey.

PT: base year is 2011. The country did not participate to the 2011 and 2012 surveys.

Member States R&D intensity group 5

Evolution of Governmental R&D Budget 2009-2014 within the group 5 : (2009=100)
Group 5: Low R&D intensity Member States (<1.0%)



Source: DG Research and Innovation - Economic Analysis unit

Notes: (1) Not counting foregone tax revenues due to R&D tax incentives. In the survey Croatia and Malta report on foregone tax revenues due to R&D tax incentives for 2011-2012.

(2) BG: data for 2011-2013 is from 2012 survey; HR: data for 2010 is from 2011 survey.
Data are not available for Greece. Data for Lithuania varies significantly for each year.

What next?

- **It proved difficult to get adequate input to the survey. We need to improve the process.**
- **Option 1: ERAC's internal coordination, for instance within the ERAC ad –hoc group on the European Semester.**
- **Option 2: joint Commission and OECD activity together with the OECD STI Survey (see point 6.1).**



European
Commission

Thank you for your attention!