Task Force – National STEM Platforms

Portugal, 25 October 2013

Introduction

DANISH SCIENCE FACTORY

- **Mikkel Bohm**
- **Danish Science Factory**
- **Non-profit NGO**
- **Engage young people in science**

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Introduction

- **Kim Lansford**
- **ERT**
- **Forum of 50 CEOs & Chairman of European multi-nationals**
- **The competitiveness of Europe – including education**

Task Force group members

- **Nanna Seidelin,** Director, House of Natural Science
- **Kimberly Lansford,** Senior Advisor, ERT
- **Sebastiaan Smit,** Project Manager, Jet-Net
- **Hans Colind Hansen,** Consultant, Danish Science Factory
- **Mikkel Bohm,** Director, Danish Science Factory

- **Franziska Hutzler,** Project Manager, Wissensfabrik
- **Anna Artigas** and **Raquel Rios**, UAB
- **Niel McLean,** Head of Centre, FutureLab
- **Geert Paemen,** Head of Strategy and Alliances, Telefonica Foundation

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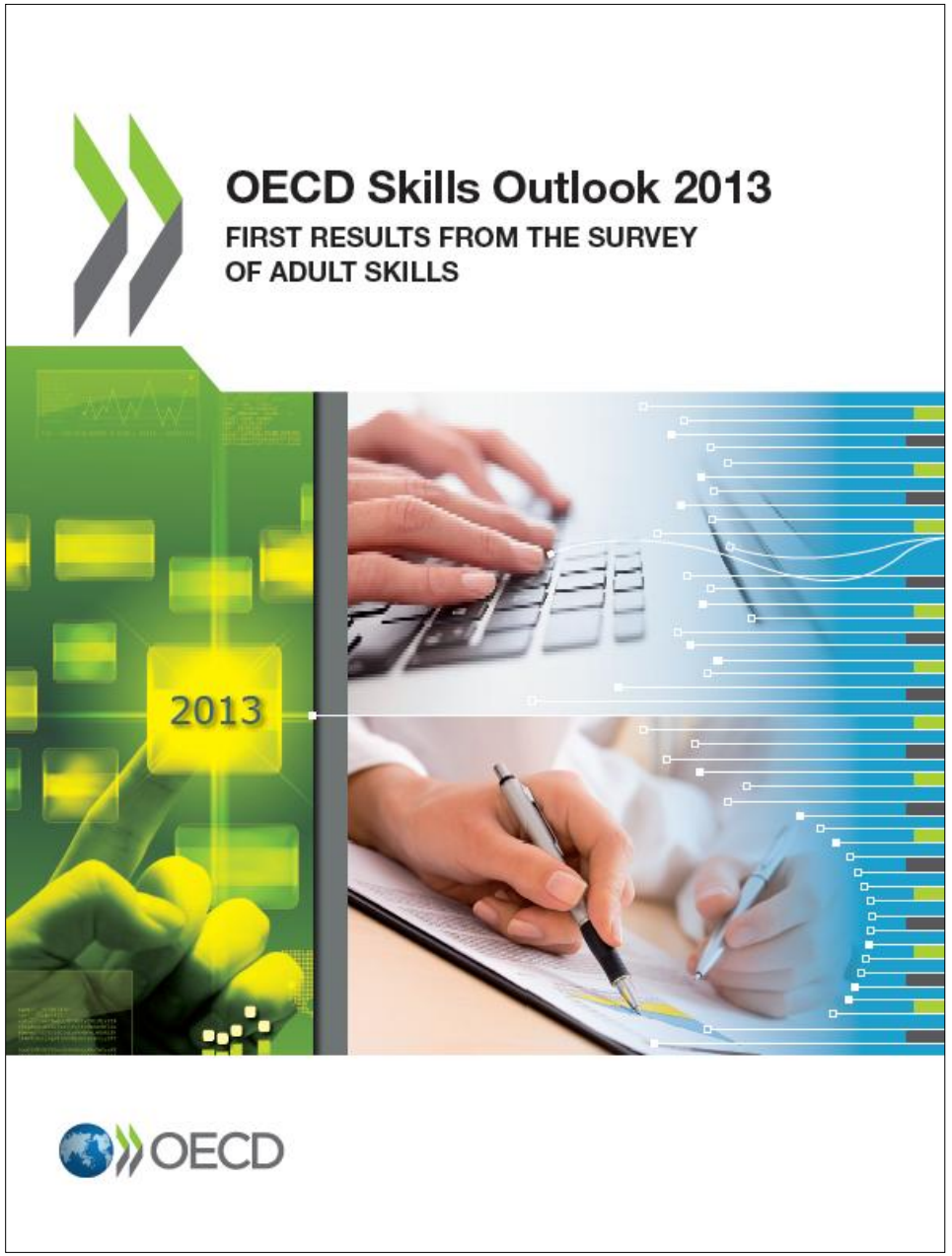
Introduction

- **Why STEM?**
- **Why National Platforms?**
- **What is a National Platform?**

WHY STEM?

- **Gap in job skills**
- **Growth**
- **Welfare**
- **A better world**

http://skills.oecd.org/documents/OECD_Skills_Outlook_2013.pdf



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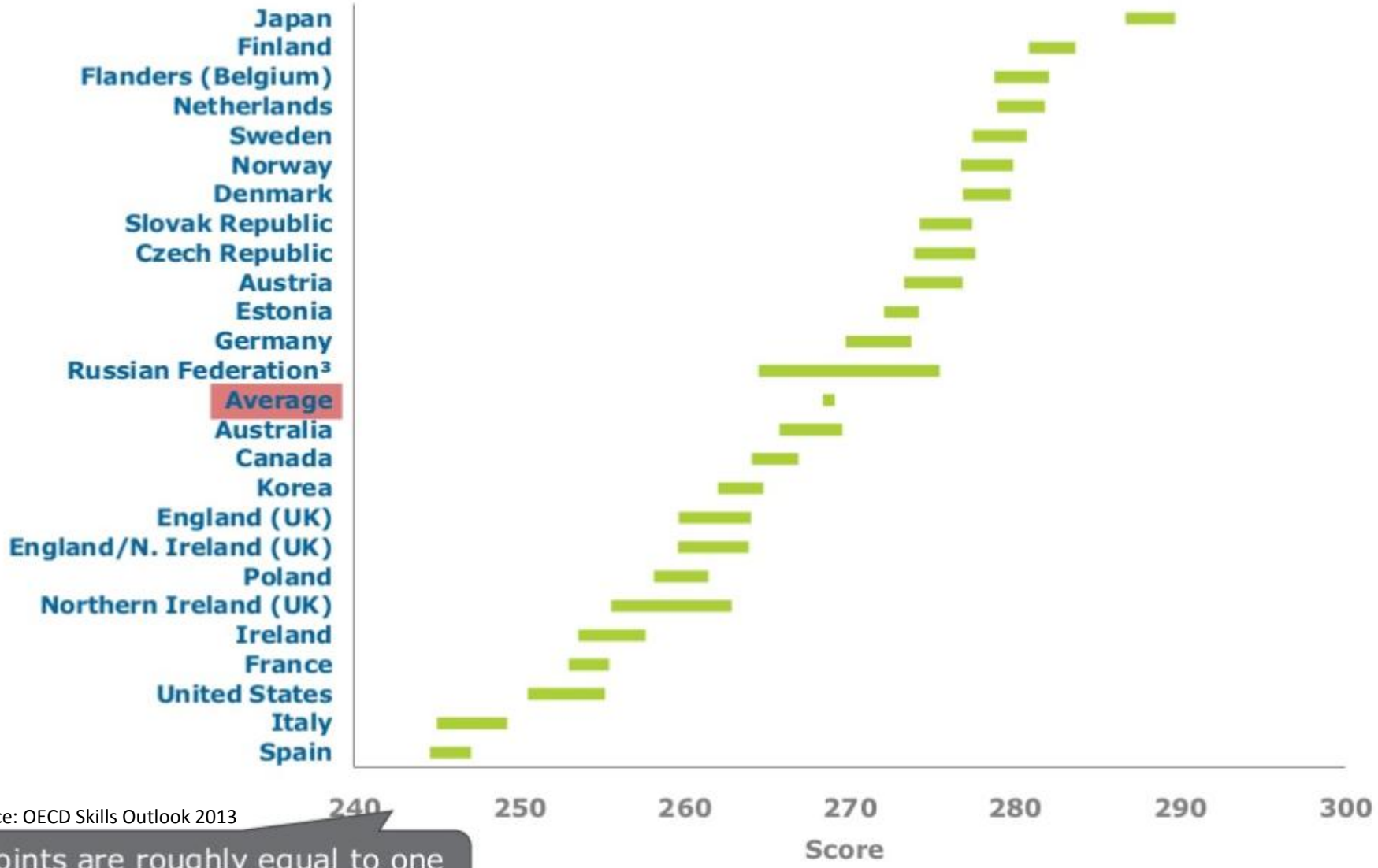
Skills of adults
Numeracy

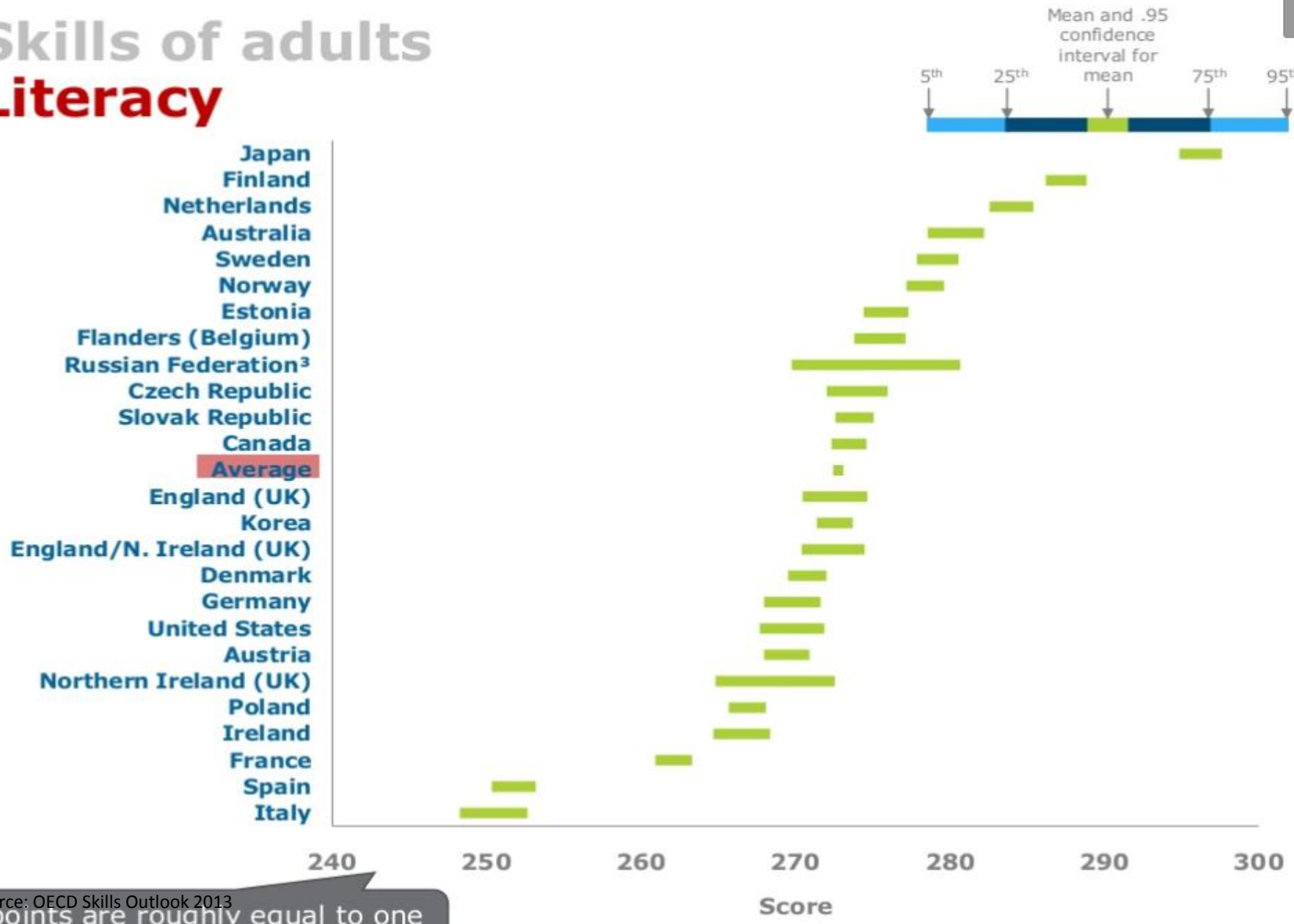


Source: OECD Skills Outlook 2013

7 points are roughly equal to one year of education

Skills of adults

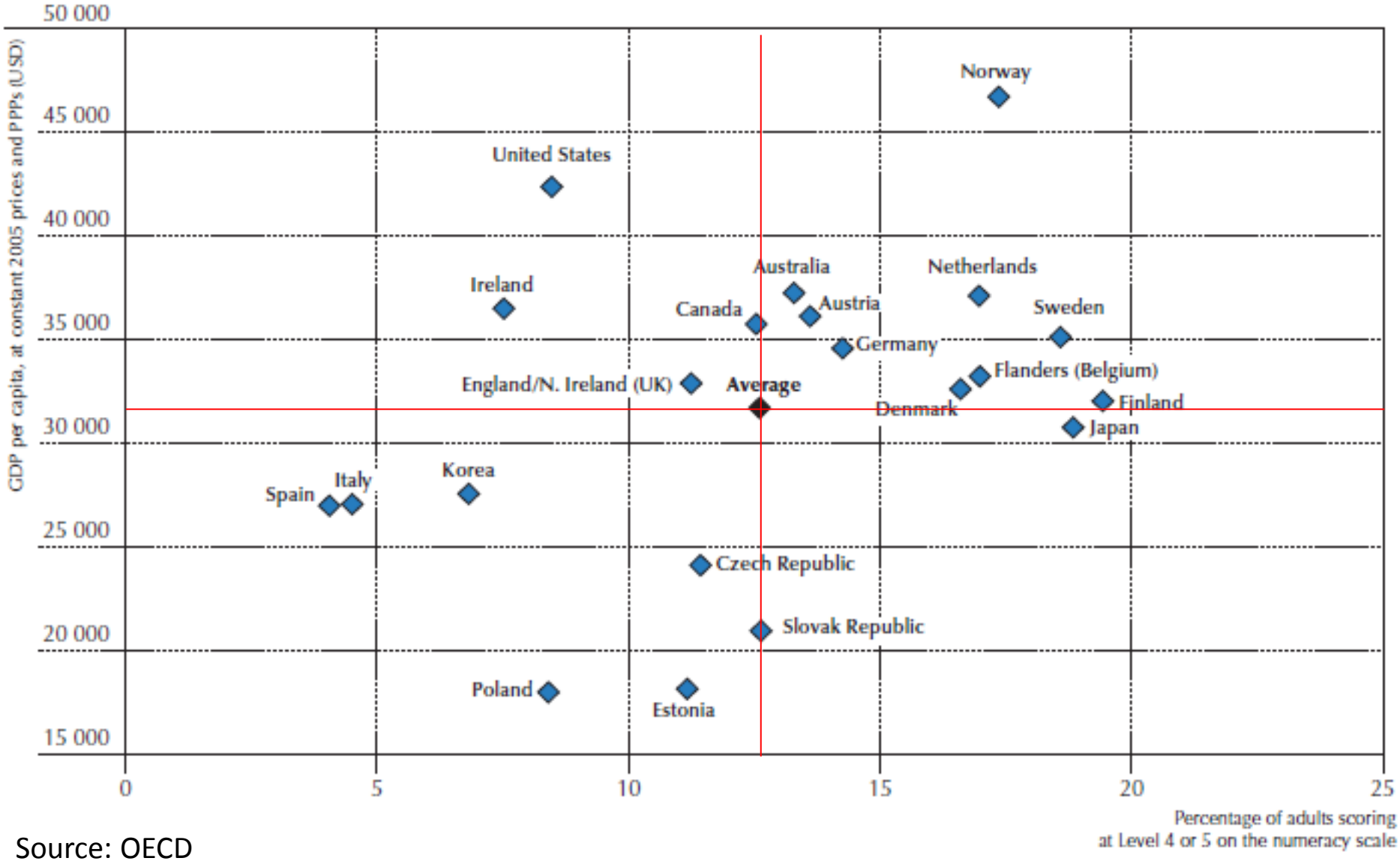
Literacy



Source: OECD Skills Outlook 2013

7 points are roughly equal to one year of education

GDP per capita vs Numeracy Skills (Levels 4 & 5)



Source: OECD

STEM shortages are prevalent throughout Europe

Germany 2012

Shortage

200 000 STEM graduates (mainly engineers)

Cost

20 billions per year

Netherlands 2011 - 2016

Shortage

25 000 per year technical skills graduates

Need to replace staff

20% of engineers > 55 years are still active in DE, CH and DK

France 2011

Shortage

Delta – 10 000
30 000 supply for
40 000 offer

Switzerland 2009

Shortage

2000 candidates for
16 000 jobs

Cost

2 billions per year

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Source: InGenious, various sources

I don’t know…

Maybe.. if you want to be a phycisist…

IT WORKS TO LEARN ABOUT INDUSTRY

	I would like to get a job related to science or technology		
N=7131		Disagree	Agree
At school I learn about different career choices available in industry, science and technology	Girls Disagree	57%	43%
	Girls Agree	37%	63%
	Boys Disagree	49%	51%
	Boys Agree	31%	69%
	All Disagree	54%	46%
	All Agree	34%	66%

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Source: InGenious WP6

WHY NATIONAL PLATFORMS?
Quotes from National Needs Analysis

Germany: ”Concerning a long term perspective it would be beneficial if the different networks in Germany would work together, teaching with a common goal, improving the conditions of STEM education and using synergies.”

Spain: ”Increasing awareness among all the agents (governments, schools, companies, families and the society in general) about the importance of an education that promotes STEM.”

UK: “One place - a portal website that showcases and lists ways that schools can engage with industry. This site should guide schools into what the first step to take is (where do you go to start the journey / relationship).”

Finland: “The need of co-operation between different stakeholders was seen clearly and a few concrete steps forward were established.”

Austria: ”A national STEM information platform on the internet is needed with “best practice “examples and contacts on regional basis.”

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WHY NATIONAL PLATFORMS?
Better results

- **Avoid stand-alone activities**
- **Create synergies**
- **Clear common goals**
- **Exchange good practise**
- **Be sustainable**

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WHAT IS A NATIONAL PLATFORM?
Key ingredients

- **Several ministries involved**
- **Clear national goals**
- **Public-private partnership**
- **National agenda – local action**
- **Synergy between activities**
- **Exchange good practise**

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Can it spread?

- **NP Task Force**
- **Involve new countries – in their own way**
- **Method: travel, dialogue, inspiration**
- **Goal: to promote knowledge transfer**

Process

- Kickstart dialogue
- Details with team this afternoon
- Visit Netherlands in winter
- Follow-up process
- Take what you can use

Next presentations

- **Dutch experiences (Sebastiaan Smit)**
- **Danish experiences (Nanna Seidelin)**