Valuing our teachers and raising their status

Andreas Schleicher
ISTP, 22 March 2018

how communities can help
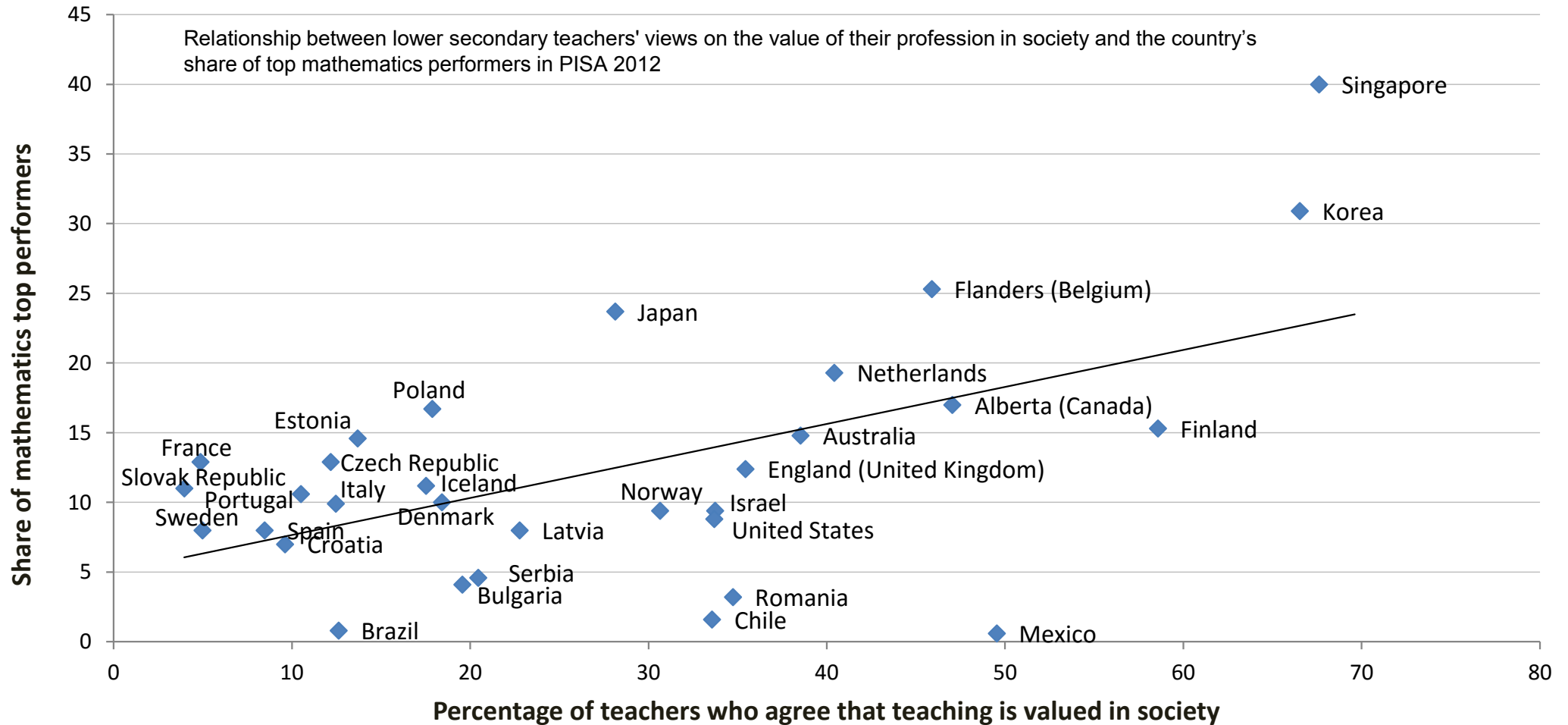
Teachers perception of the value of teaching

Percentage of lower secondary teachers who "agree" or "strongly agree" that teaching profession is a valued profession in society
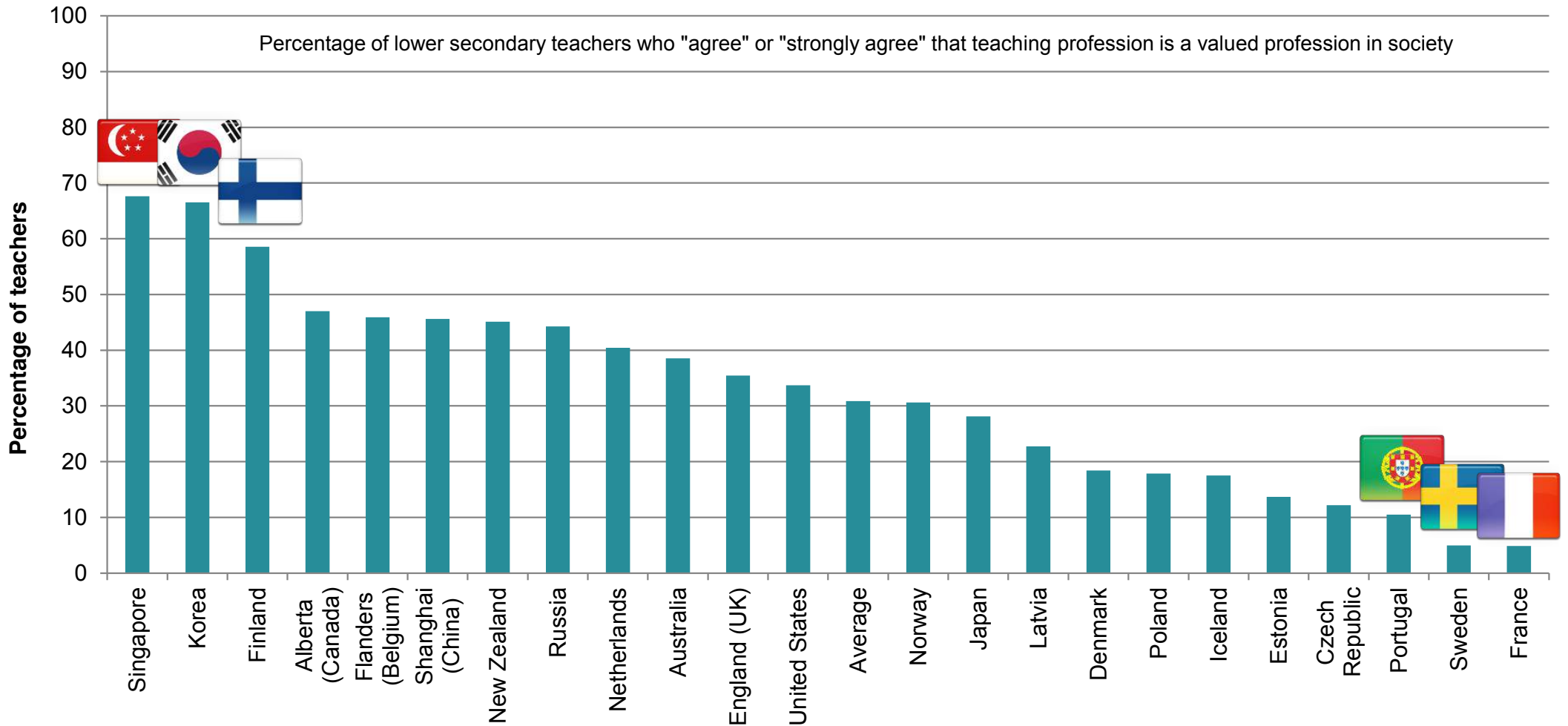
Countries where teachers believe their profession is valued show higher levels of excellence in learning outcomes (PISA)
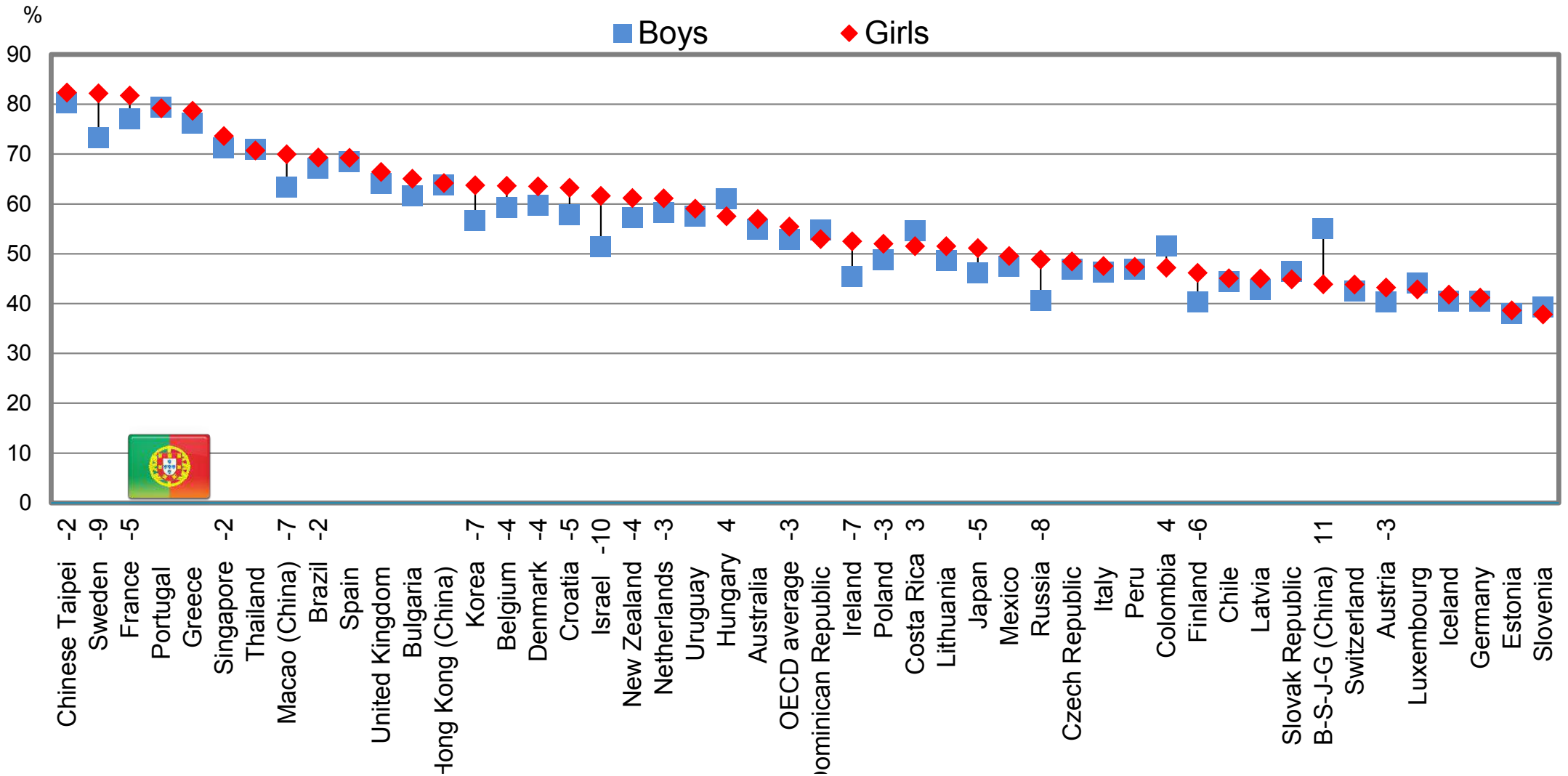

Relationship between lower secondary teachers' views on the value of their profession in society and the country's share of top mathematics performers in PISA 2012

The post-truth world where reality becomes fungible

- Virality seems privileged over quality in the distribution of information

- Truth and fact are losing currency

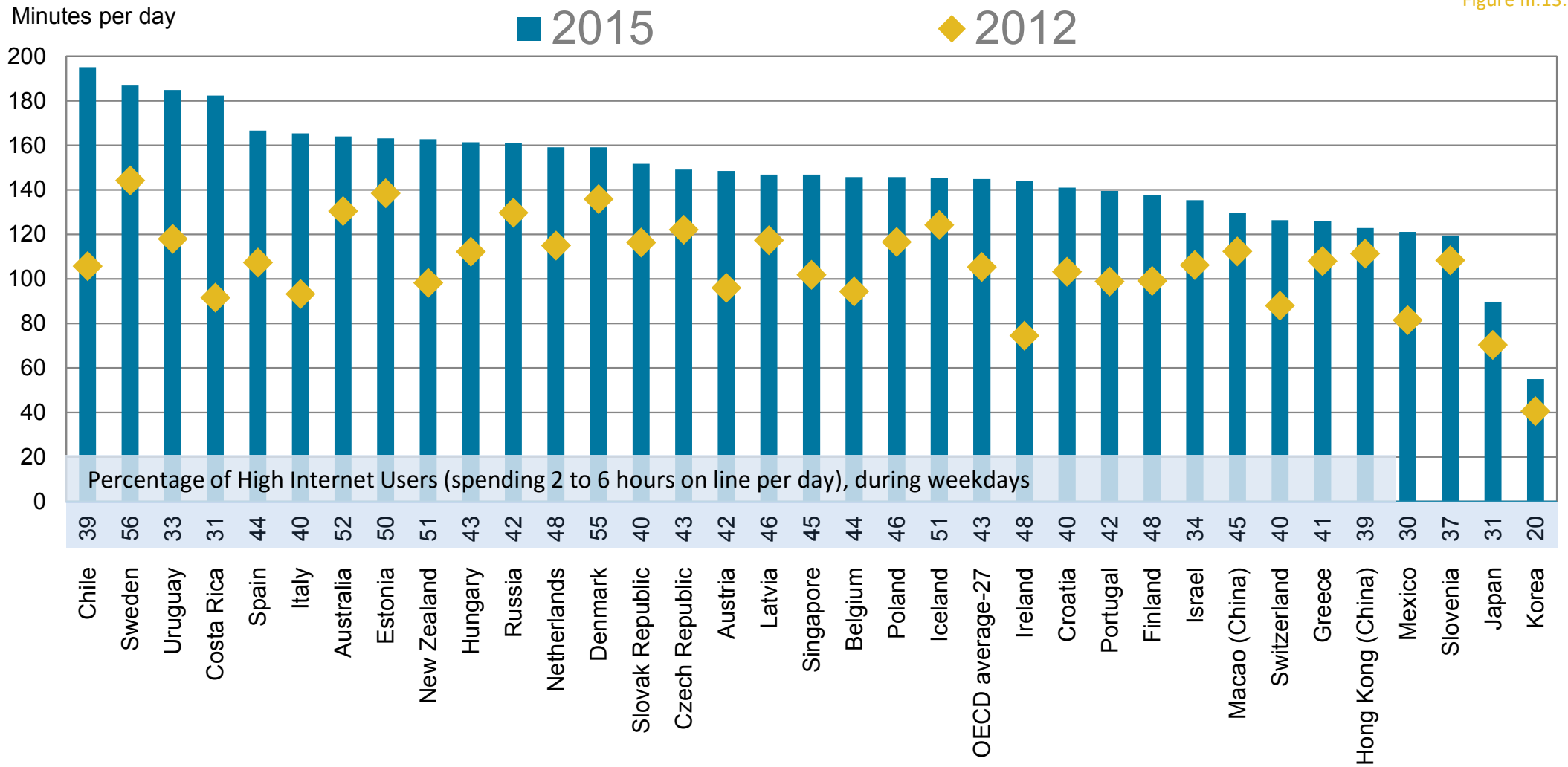**Scarcity of attention and abundance of information**

- Algorithms sort us into groups of like-minded individuals create echo chambers that amplify our views, leave us uninformed of opposing arguments, and polarise our societies

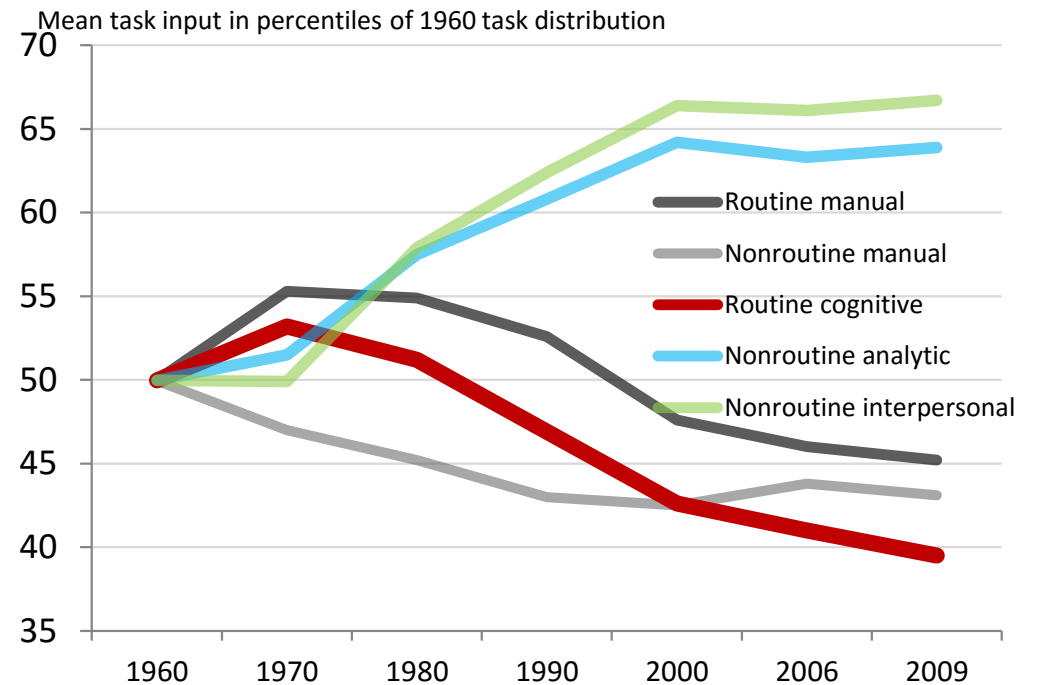# 15-year-olds feeling bad if not connected to the Internet (PISA)

Students are using more time online outside school on a typical school day (PISA)
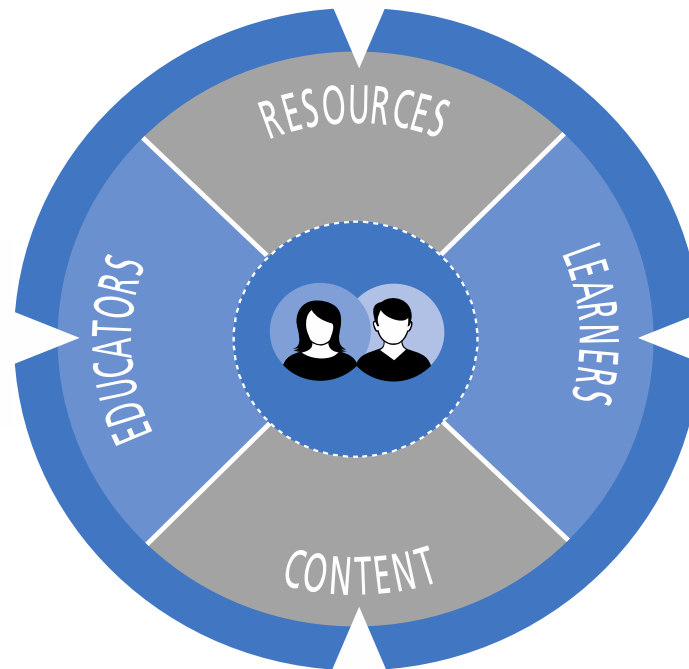
Figure III.13.3

Minutes per day

Legend: ■ 2015   ◆ 2012

Percentage of High Internet Users (spending 2 to 6 hours on line per day), during weekdays

Country	Percentage
Chile	39
Sweden	56
Uruguay	33
Costa Rica	31
Spain	44
Italy	40
Australia	52
Estonia	50
New Zealand	51
Hungary	43
Russia	42
Netherlands	48
Denmark	55
Slovak Republic	40
Czech Republic	43
Austria	42
Latvia	46
Singapore	45
Belgium	44
Poland	46
Iceland	51
OECD average-27	43
Ireland	48
Croatia	40
Portugal	42
Finland	48
Israel	34
Macao (China)	45
Switzerland	40
Greece	41
Hong Kong (China)	39
Mexico	30
Slovenia	37
Japan	31
Korea	20

The Economist

INSIDE: A 14-PAGE SPECIAL REPORT ON TECH STARTUPS

If the French ran America
China cracks down on microblogs
New opportunities for organised crime
Regulators go soft on Europe's banks
Google and the internet of things

JANUARY 18TH–24TH 2014   Economist.com

Coming to an office near you...

What today's technology will do to tomorrow's jobs

The kind of things that are easy to teach are now easy to automate, digitize or outsource

Mean task input in percentiles of 1960 task distribution

- Routine manual
- Nonroutine manual
- Routine cognitive
- Nonroutine analytic
- Nonroutine interpersonal

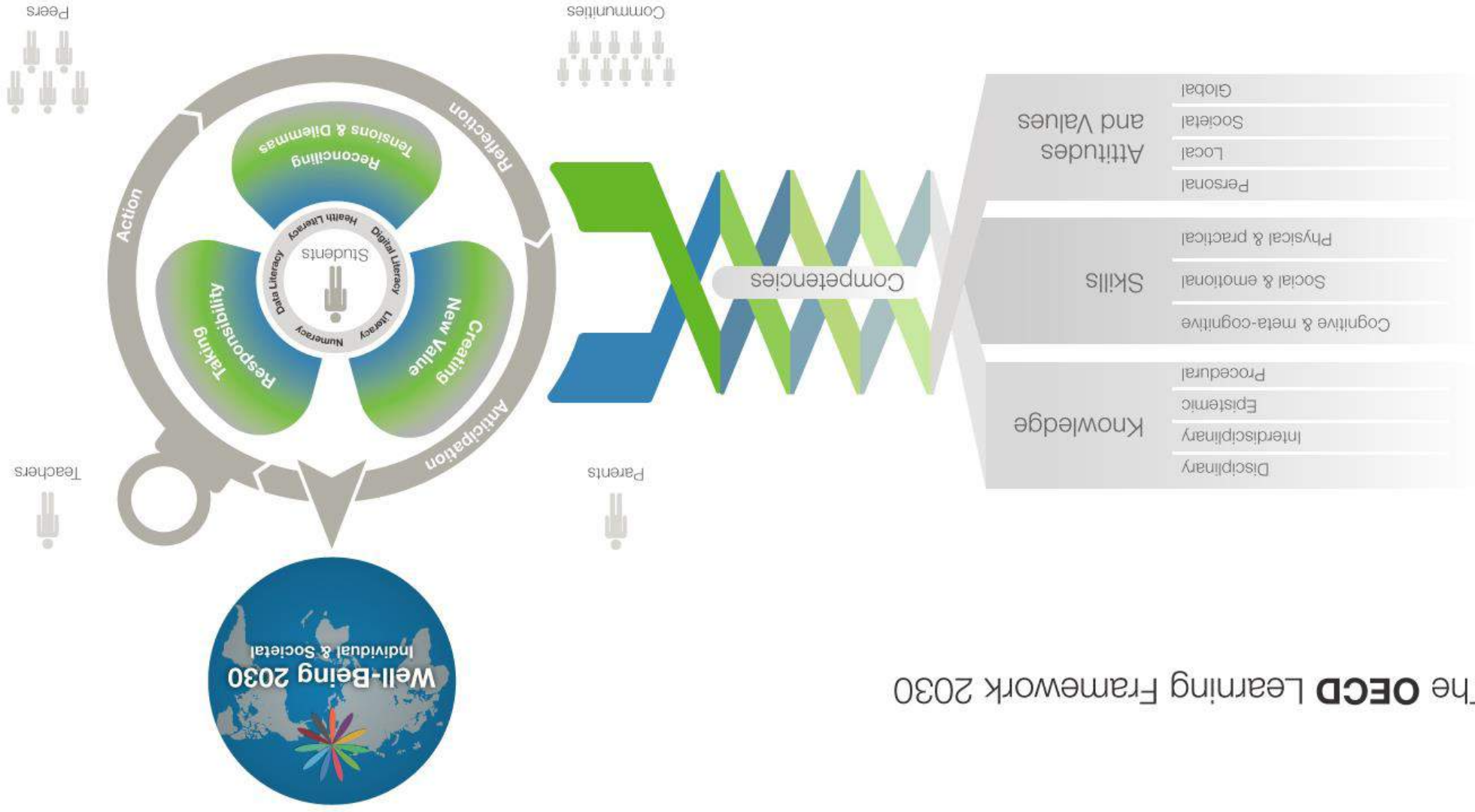# When fast gets really fast, being slow to adapt makes you really slow

The OECD Learning Framework 2030

Peers

Communities

Teachers

Parents

Action

Reflection

Anticipation

Reconciling Tensions & Dilemmas

Taking Responsibility

Creating New Value

Students

Health Literacy

Digital Literacy

Data Literacy

Numeracy

Literacy

Well-Being 2030
Individual & Societal

Competencies

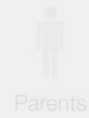| Attitudes and Values | Global |
	Societal
	Local
	Personal
Skills	Physical & practical
	Social & emotional
	Cognitive & meta-cognitive
Knowledge	Procedural
	Epistemic
	Interdisciplinary
	Disciplinary

Agency: Young people will need to be innovative, responsible and aware. They will have a sense of right and wrong, sensitivity to the claims that others make and a grasp of the proper limits on individual and collective action.

Co-agency: The interactive, mutually supportive relationships that help learners to progress towards their valued goals. To help enable agency, educators need to recognise learners' individuality, and also acknowledge the wider set of relationships – with their teachers, peers, families and communities – that influence their learning.

Well-Being 2030
Individual & Societal

Teachers

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Reconciling Tensions & Dilemmas
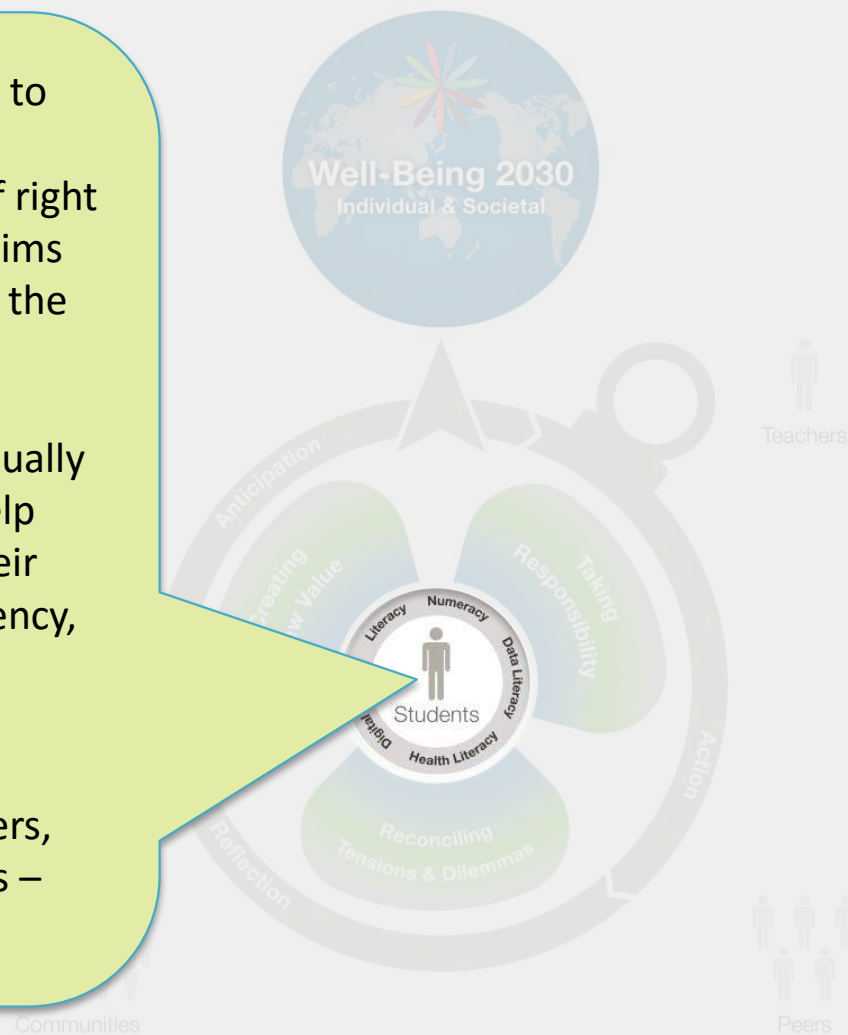
Communities
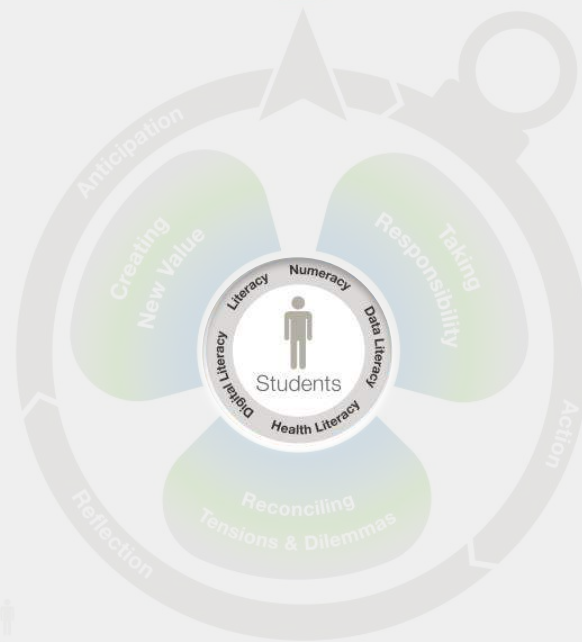
Peers

Countries where students have stronger beliefs in their abilities perform better
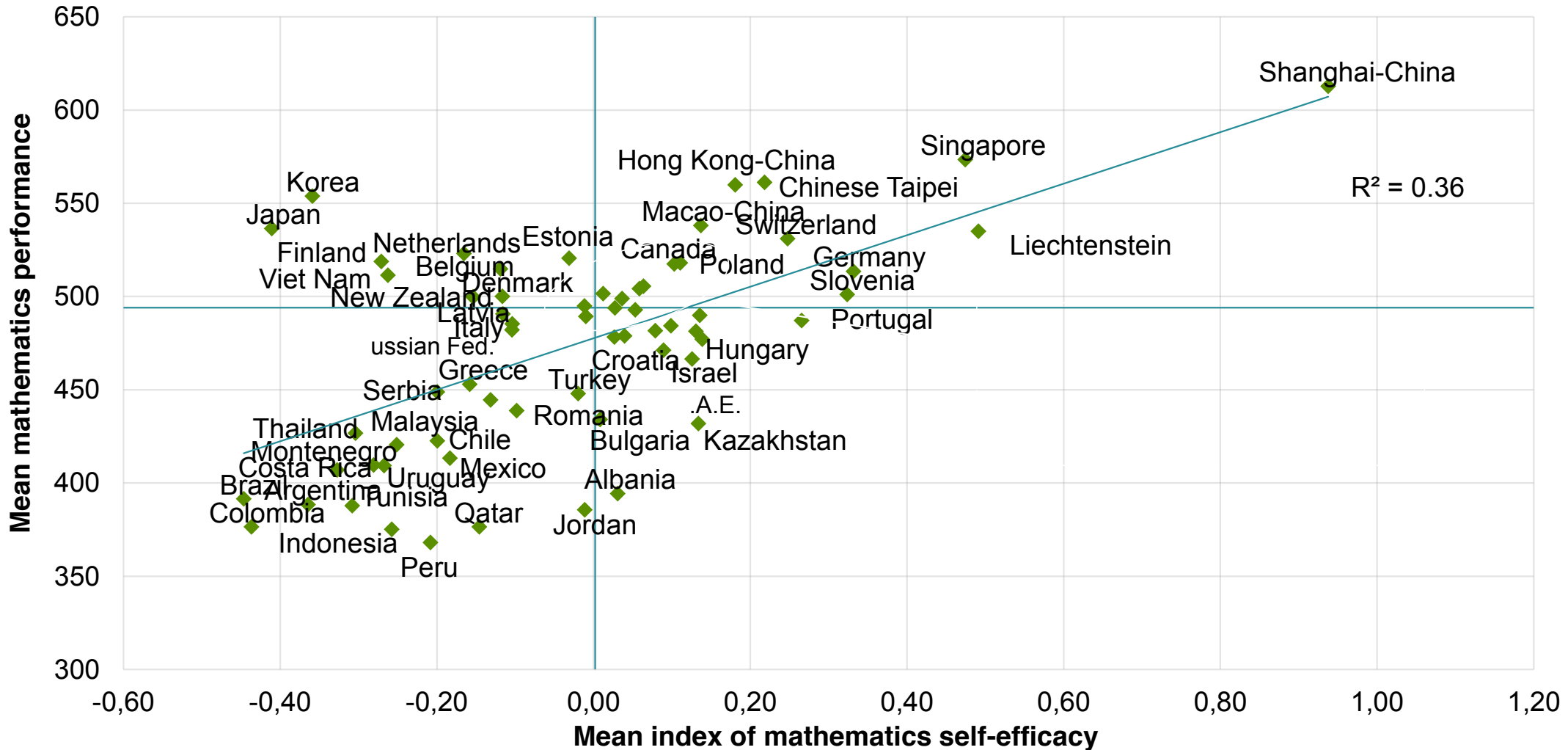
Creating new value connotes processes of creating, making, bringing into being and formulating; and outcomes that are innovative, fresh and original, contributing something of intrinsic positive worth. The constructs that underpin the competence are creativity/ creative thinking/ inventive thinking, curiosity, global mind-set, …
.

In a structurally imbalanced world, the imperative of reconciling diverse perspectives and interests, in local settings with sometimes global implications, will require young people to become adept in handling tensions, dilemmas and trade-offs. Underlying constructs are empathy, resilience/stress resistance trust, …
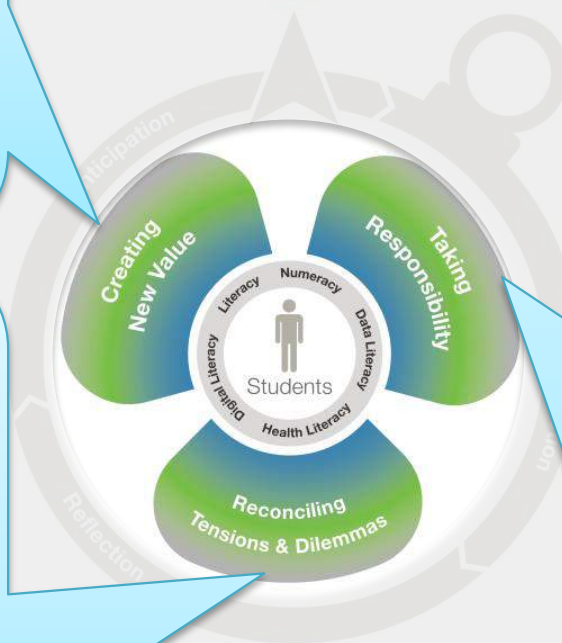
Dealing with novelty, change, diversity and ambiguity assumes that individuals can think for themselves and work with others. This suggests a sense of responsibility, and moral and intellectual maturity, with which a person can reflect upon and evaluate their actions in the light of their experiences and personal and societal goals; what they have been taught and told; and what is right or wrong Underlying constructs include critical thinking skills, meta-learning skills (including learning to learn skills), mindfulness, problem solving skills, responsibility, …
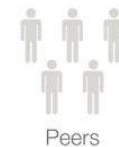
Well-Being 2030
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Anticipation mobilises cognitive skills, such as analytical or critical thinking, to foresee what may be needed in the future or how actions taken today might have consequences for the future

Reflective practice is the ability to take a critical stance when deciding, choosing and acting, by stepping back from what is known or assumed and looking at a situation from other, different perspectives

Implications for pedagogy
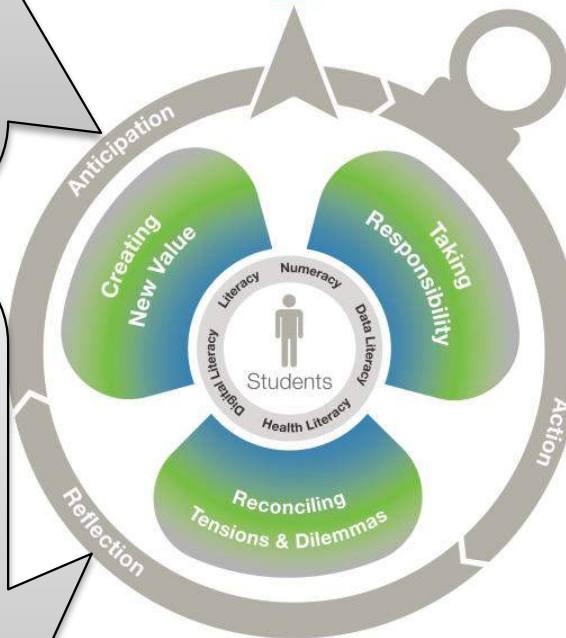
Both reflective practice and anticipation contribute to the willingness to take responsible actions

Well-Being 2030
Individual & Societal

Anticipation

Creating New Value

Taking Responsibility

Literacy
Numeracy
Data Literacy
Digital Literacy
Students
Health Literacy

Reconciling Tensions & Dilemmas

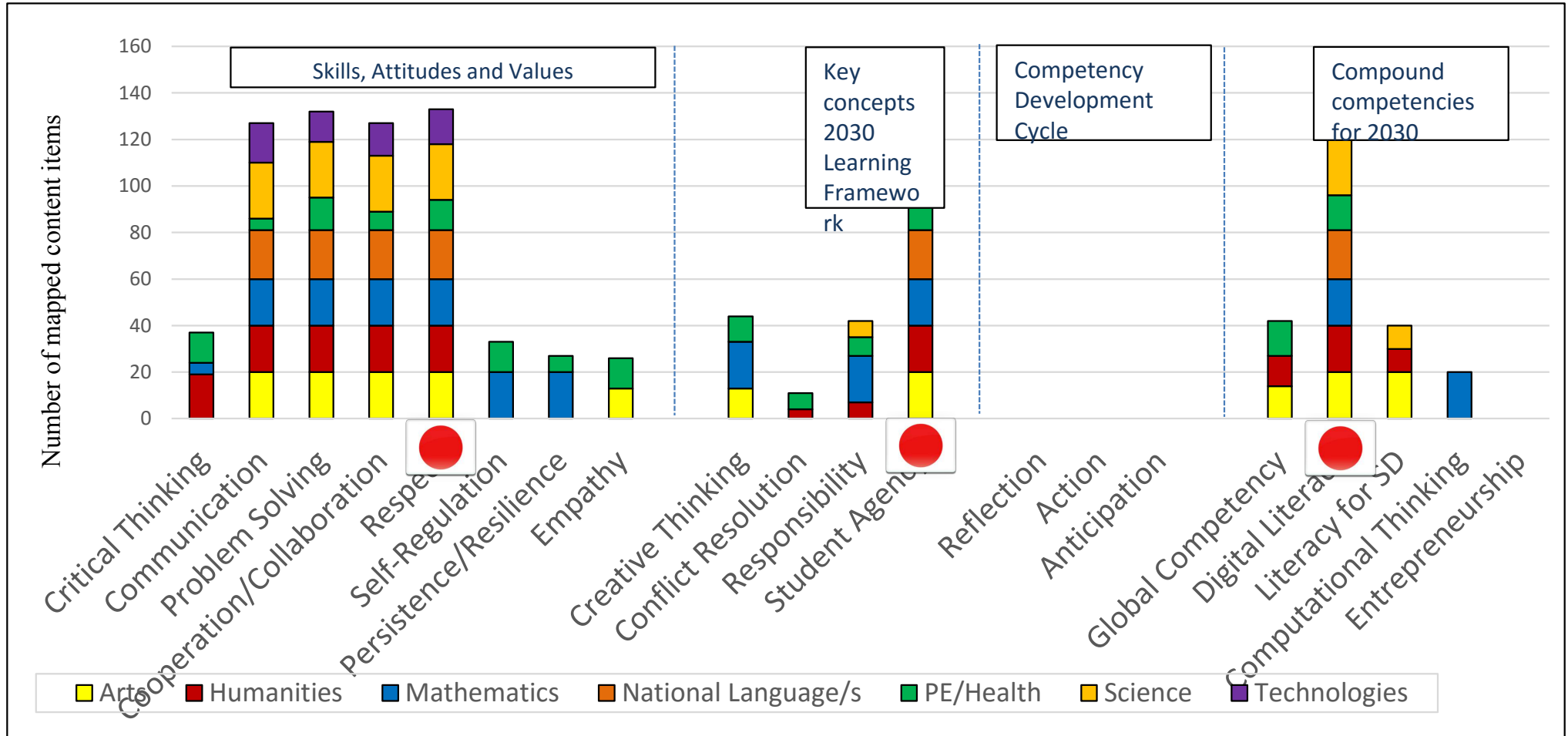Reflection

Action

Peers

V14 | OECD 2030 Learning Compass

Current curricula and 2030 aspirations
Preliminary findings of curriculum content mapping (lower secondary; Ontario, Canada)
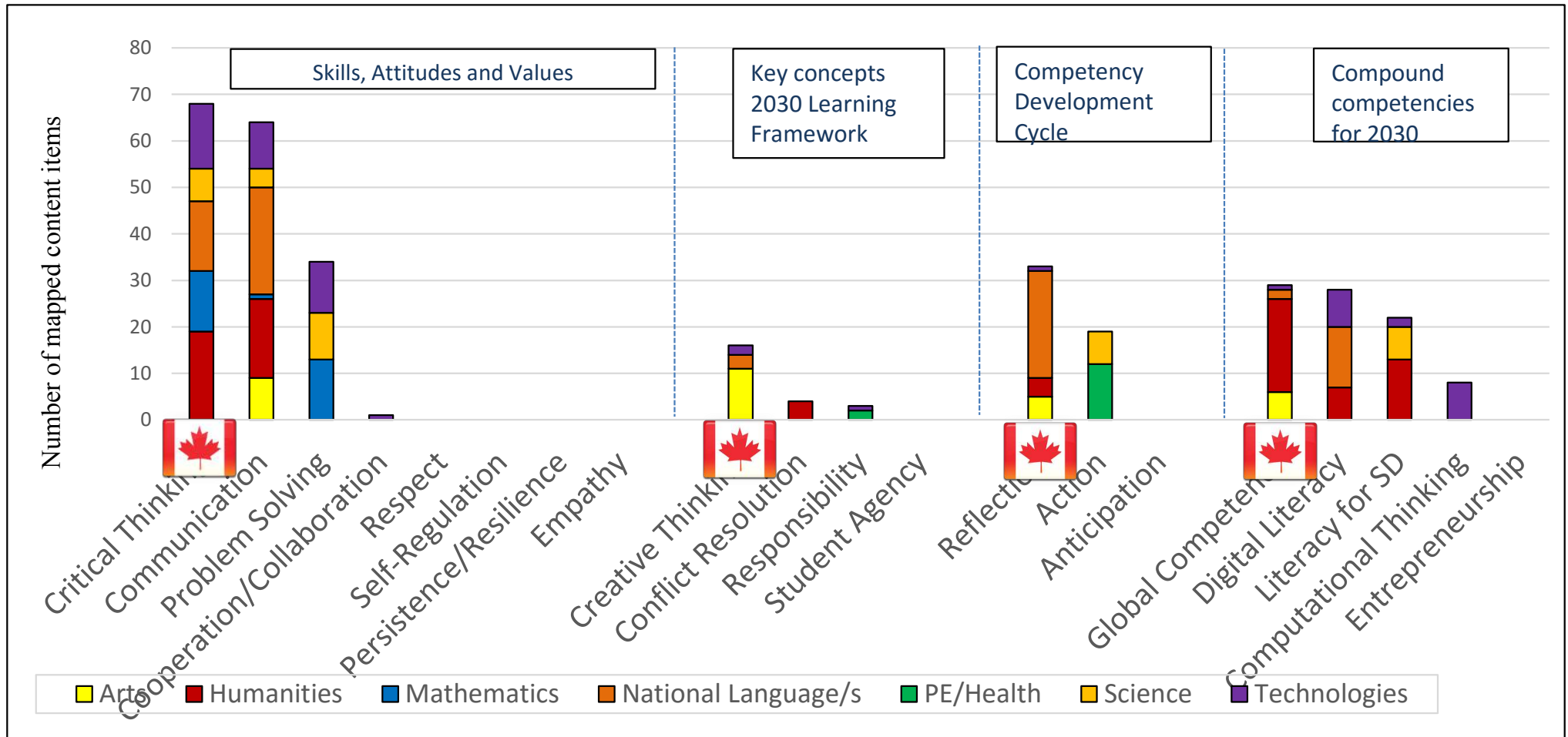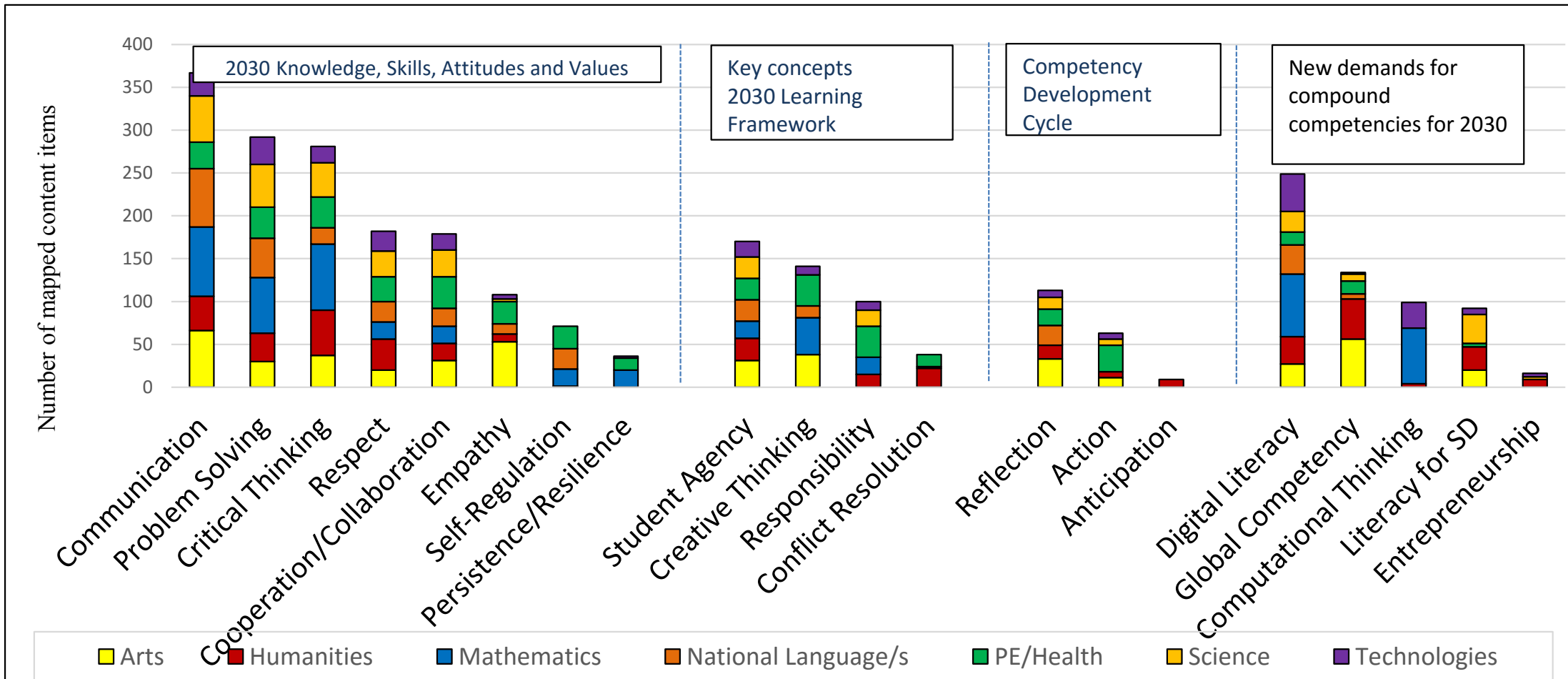
Current curricula and 2030 aspirations
Preliminary findings of curriculum content mapping (lower secondary; Japan)

Current curricula and 2030 aspirations (country average)

Preliminary findings of curriculum content mapping (lower secondary)

Number of mapped content items

2030 Knowledge, Skills, Attitudes and Values

Key concepts 2030 Learning Framework

Competency Development Cycle

New demands for compound competencies for 2030

Categories: Communication, Problem Solving, Critical Thinking, Respect, Cooperation/Collaboration, Empathy, Self-Regulation, Persistence/Resilience, Student Agency, Creative Thinking, Responsibility, Conflict Resolution, Reflection, Action, Anticipation, Digital Literacy, Global Competency, Computational Thinking, Literacy for SD, Entrepreneurship

Legend: ■ Arts ■ Humanities ■ Mathematics ■ National Language/s ■ PE/Health ■ Science ■ Technologies

Learning time and science performance

Figure II.6.23
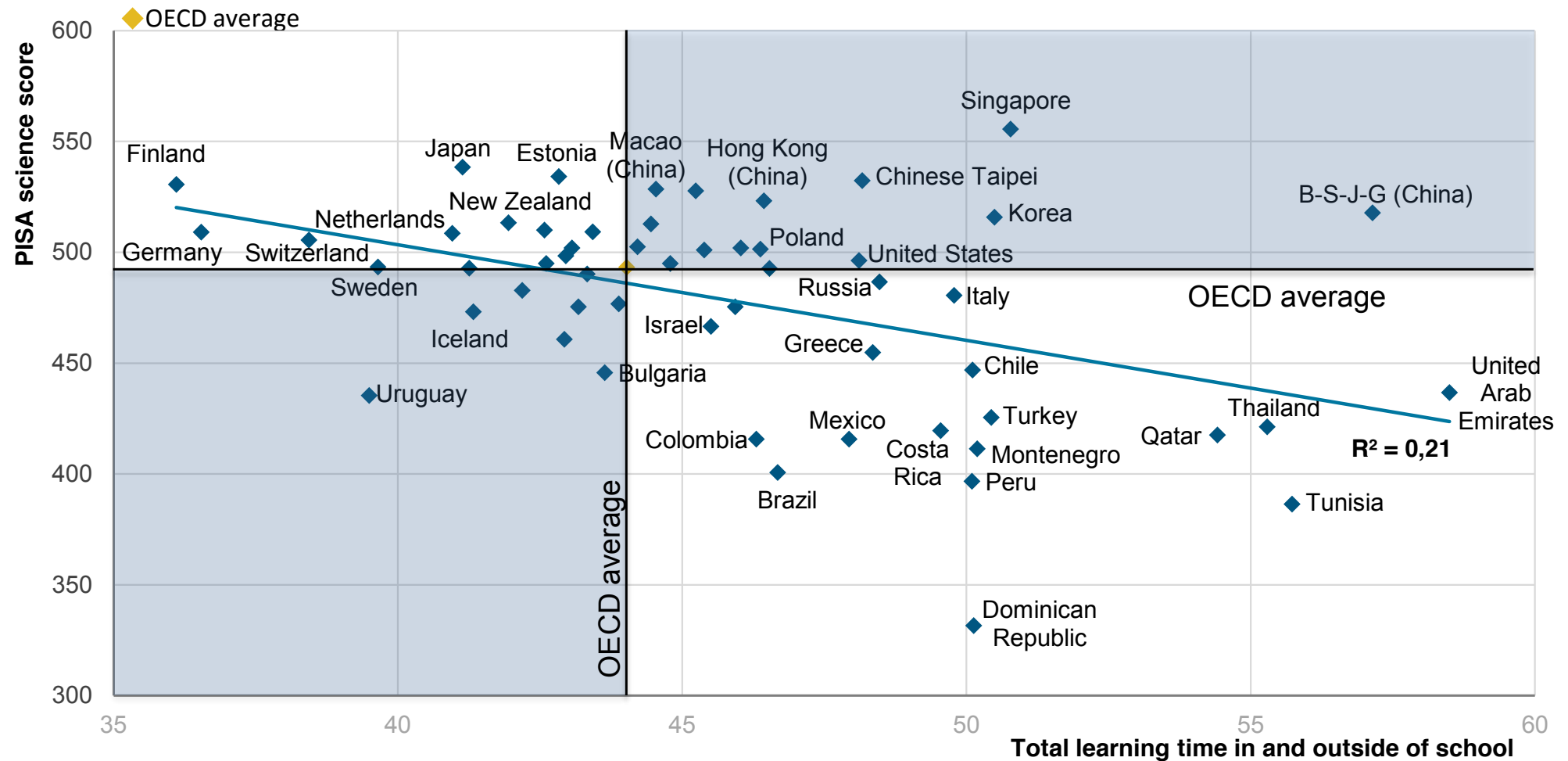
Figure II.6.23

Learning time and science performance (PISA)

Hours

- Intended learning time at school (hours)
- Study time after school (hours)
- Score points in science per hour of total learning time

Score points in science per hour of learning time
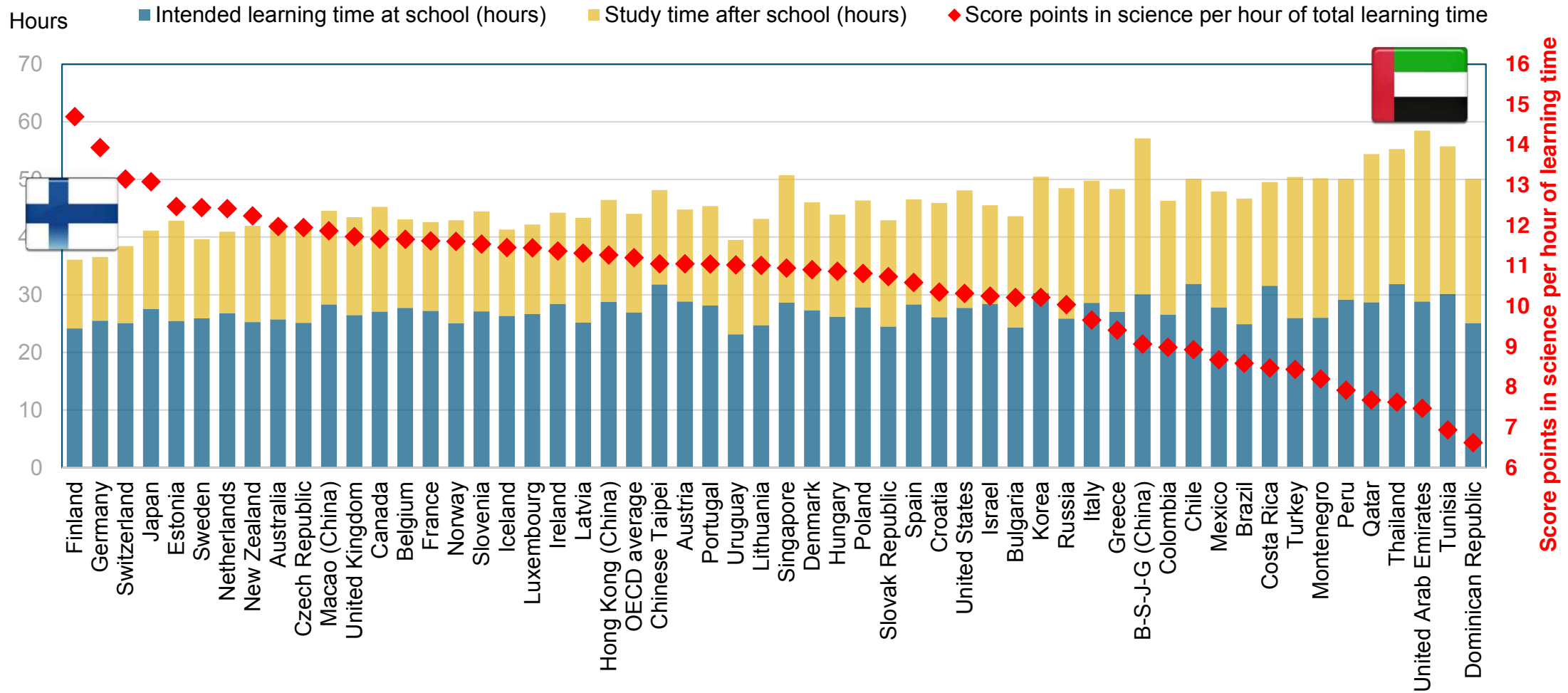
Technology can amplify innovative teaching

- Well beyond textbooks, in multiple formats, with little time and space constraints

- As tools for inquiry-based pedagogies with learners as active participants

Expand access to content

Support new pedagogies

Collaboration for knowledge creation

Feedback

- Collaborative platforms for teachers to share and enrich teaching materials

- Make it faster and more granular

Technology in schools and digital skills still don't square

Relationship between students' skills in reading and computer use at school (average across OECD countries)

Source: Figure 6.5
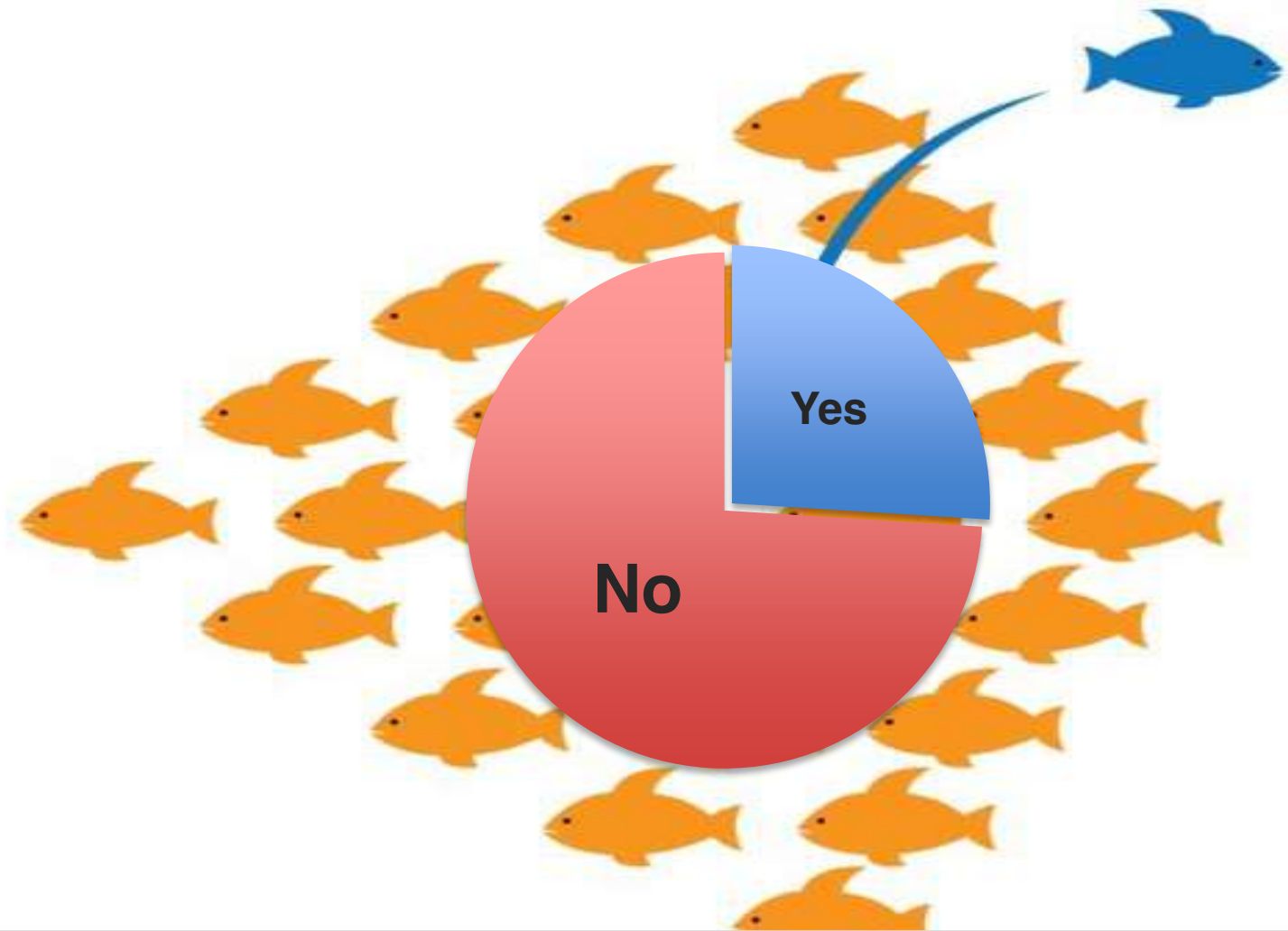
**If I am more innovative in my teaching
I will be rewarded** (country average)

Some lessons

- Rigor, focus and coherence
- Remain true to the disciplines
  - but aim at interdisciplinary learning and the capacity of students to see problems through multiple lenses
  - Balance knowledge of disciplines and knowledge about disciplines
- Focus on areas with the highest transfer value
  - Requiring a theory of action for how this transfer value occurs
- Authenticity
  - Thematic, problem-based, project-based, co-creation in conversation
- Some things are caught not taught
  - Immersive learning propositions

What teachers say and what teachers do

96% of teachers: My role as a teacher is to facilitate students own inquiry
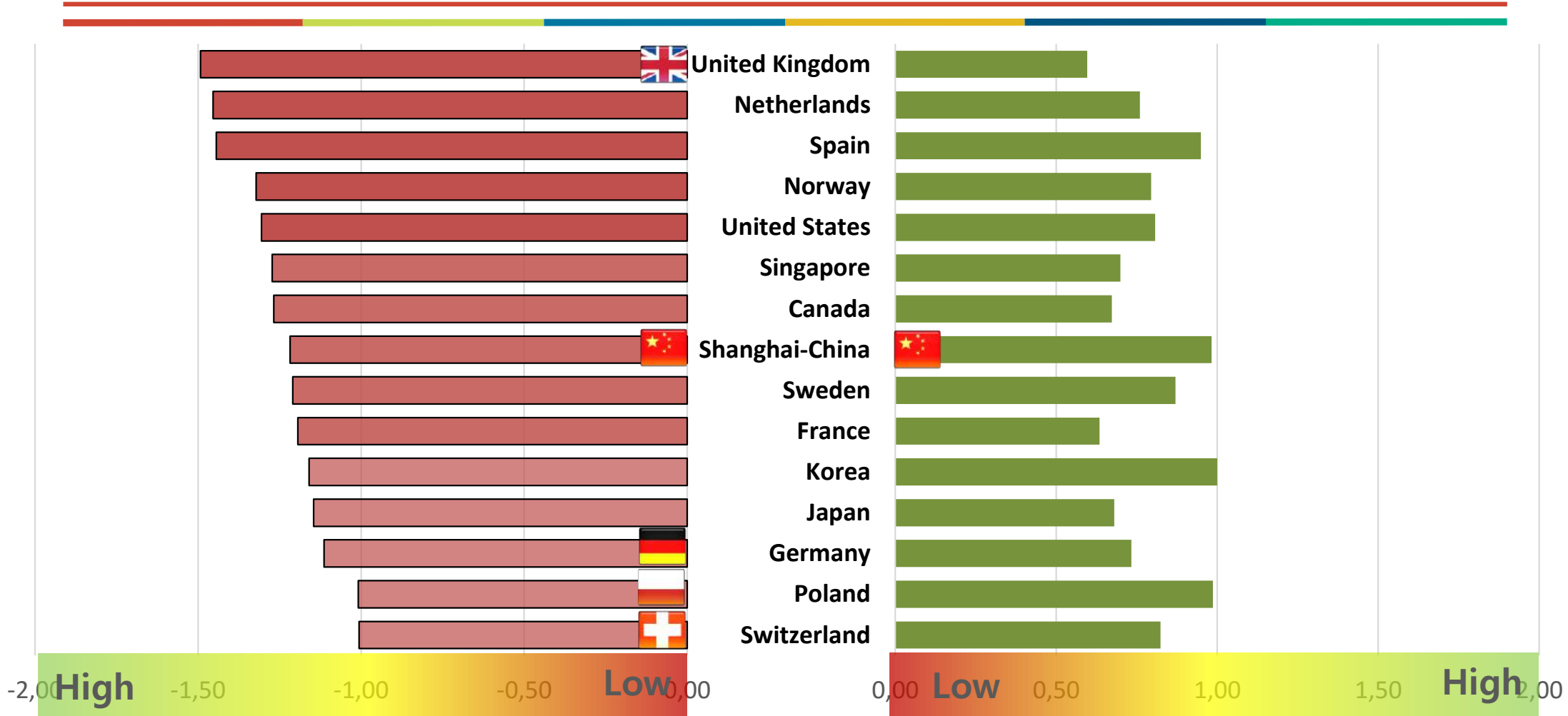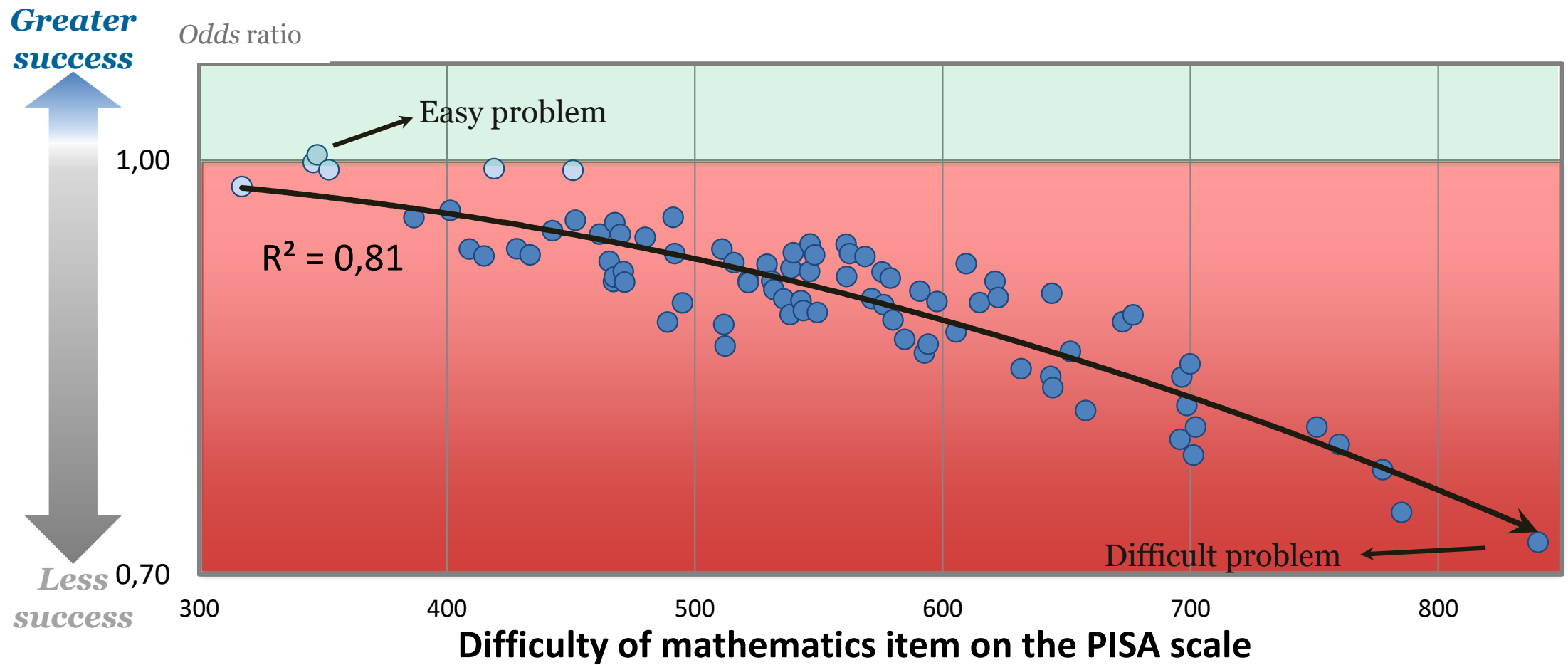
86%: Students learn best
by findings solutions on their own

74%: Thinking and reasoning is more important than curriculum content

Prevalence of **memorisation**
rehearsal, routine exercises, drill and practice and/or repetition

Prevalence of **elaboration**
reasoning, deep learning, intrinsic motivation, critical thinking, creativity, non-routine problems

United Kingdom
Netherlands
Spain
Norway
United States
Singapore
Canada
Shanghai-China
Sweden
France
Korea
Japan
Germany
Poland
Switzerland

High -2,00 -1,50 -1,00 -0,50 Low 0,00   0,00 Low 0,50 1,00 1,50 High 2,00

Memorisation is less useful as problems become more difficult (OECD average)

Elaboration strategies are more useful as problems become more difficult *(OECD average)*
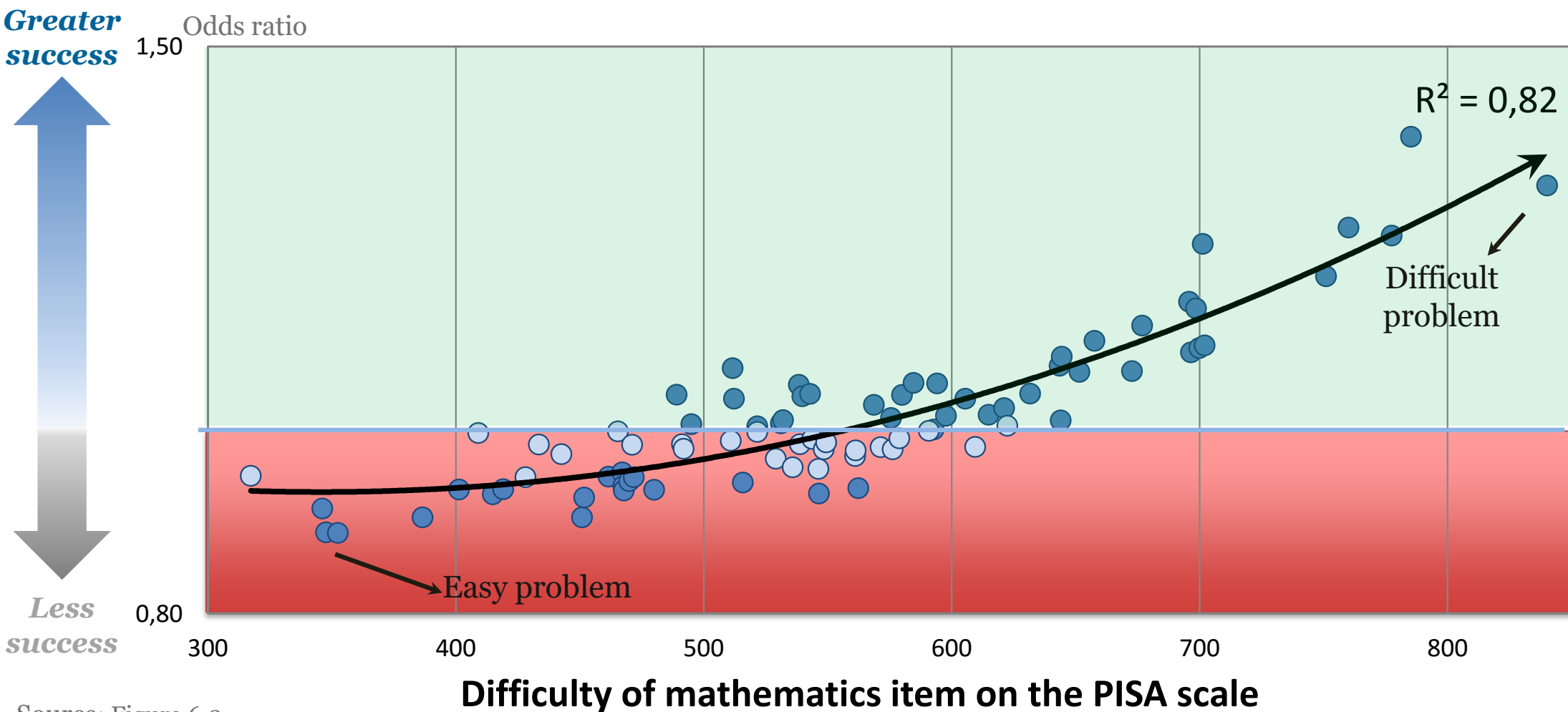
Source: Figure 6.2

What policy can do

- Create a more level playing field for educational innovation
- Open up systems
  - Create an innovation-friendly climate so transformative ideas can bloom at the grassroots level
  - Foster innovation within the system and create opportunities for outside innovations to enter the system
- Make great ideas real
  - Strengthen professional autonomy and a collaborative culture where great ideas are shared, refined and borrowed, and where access to funding and non-financial support lifts those ideas into action.
  - Build incentives and signals that strengthen visibility and demand for what demonstrably works
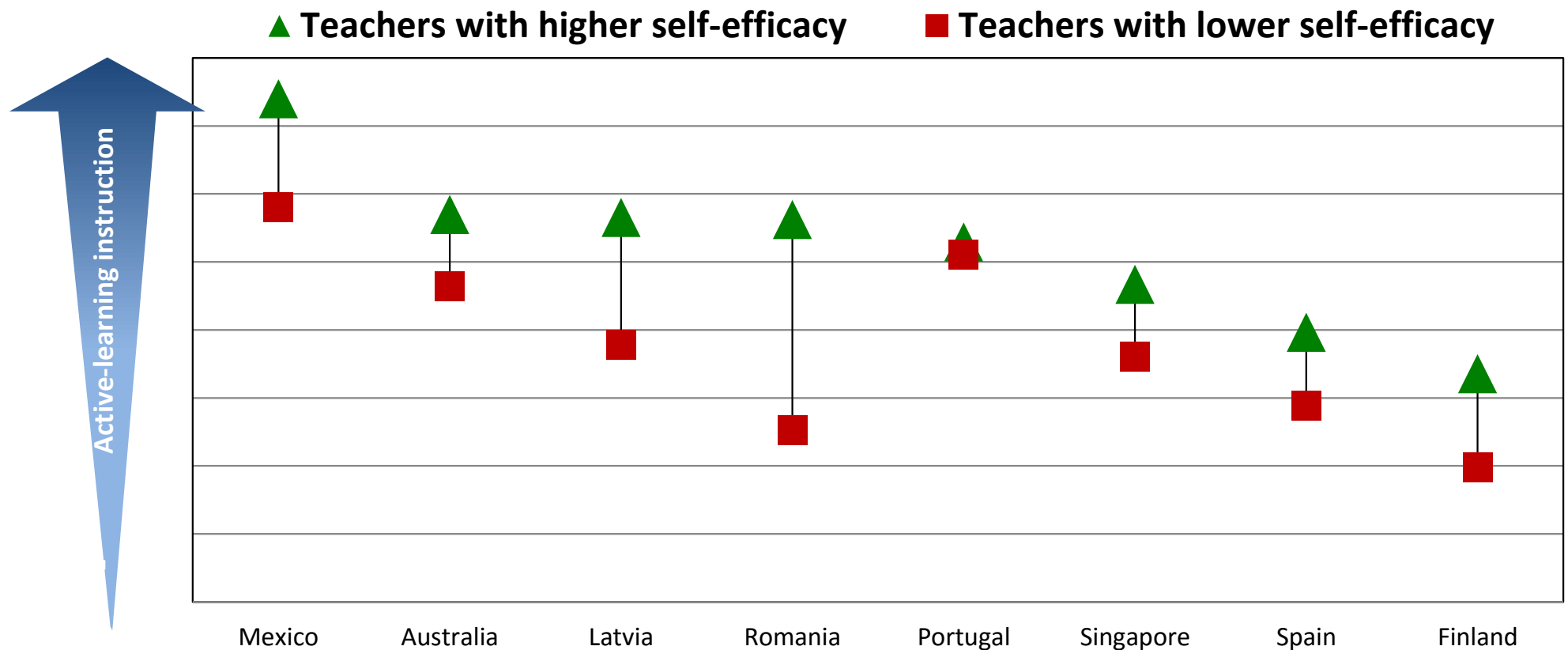
What policy can do

- Recognise that technology can amplify great teaching
  - But great technology will never replace poor teaching
- The road of educational reform is littered with good ideas that were poorly implemented
  - Focus on how to design, implement, scale and spread good ideas
  - Focus on how to use the people, the spaces, the time and the technology innovatively
- Increase relevance and quality of innovation
  - and the speed from idea to impact
- Build teachers' capacity and provide more room for entrepreneurship
  - Even where good knowledge exists, many educators just don't believe that the problems they face can be solved by evidence and science.

Active learning instruction is predicted by teachers' self-efficacy

▲ Teachers with higher self-efficacy   ■ Teachers with lower self-efficacy

Active-learning instruction

Mexico   Australia   Latvia   Romania   Portugal   Singapore   Spain   Finland

Theme 3
Teachers' well-being, confidence and efficacy

- Some evidence that well-being factors impact motivation, self-efficacy and job commitment
- Attrition a growing issue, with high costs
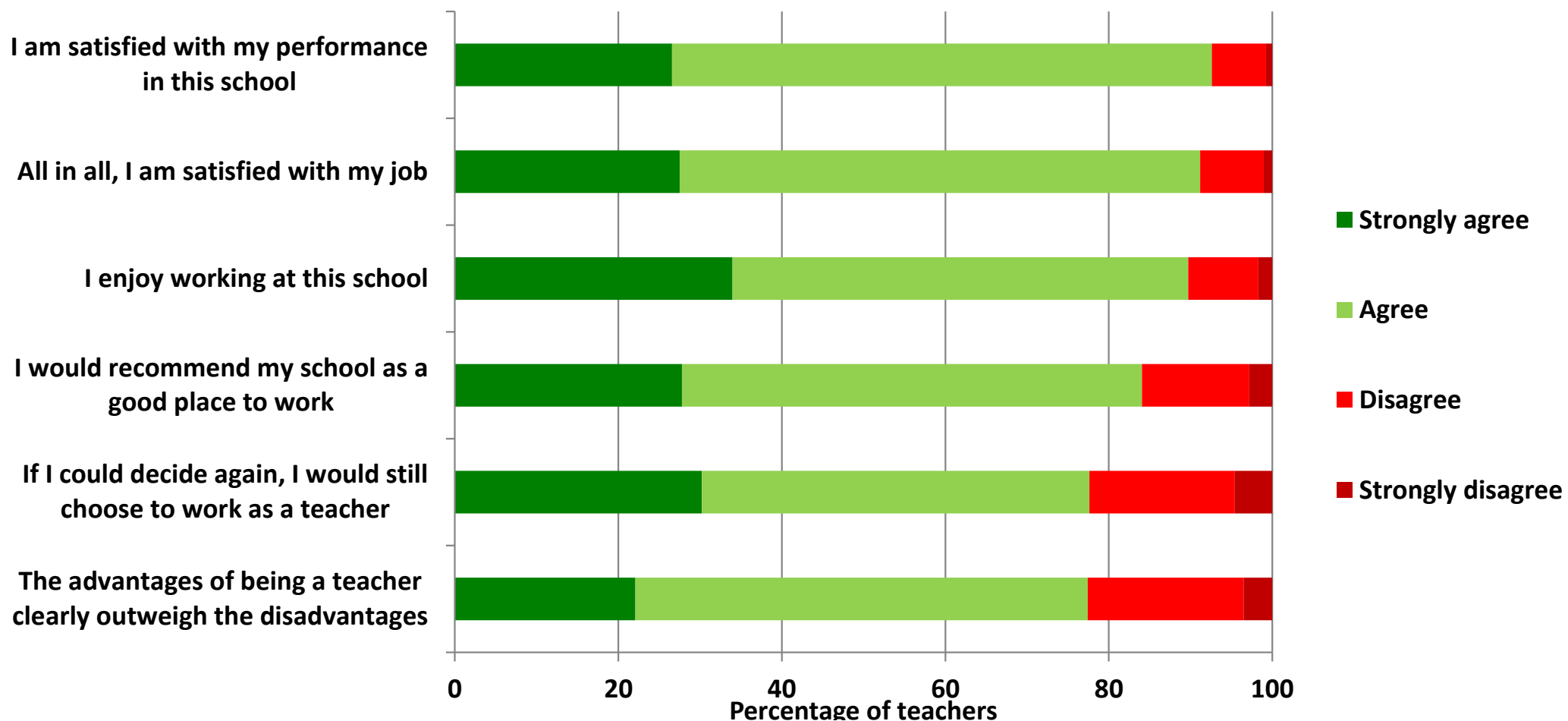- Growing teacher shortages
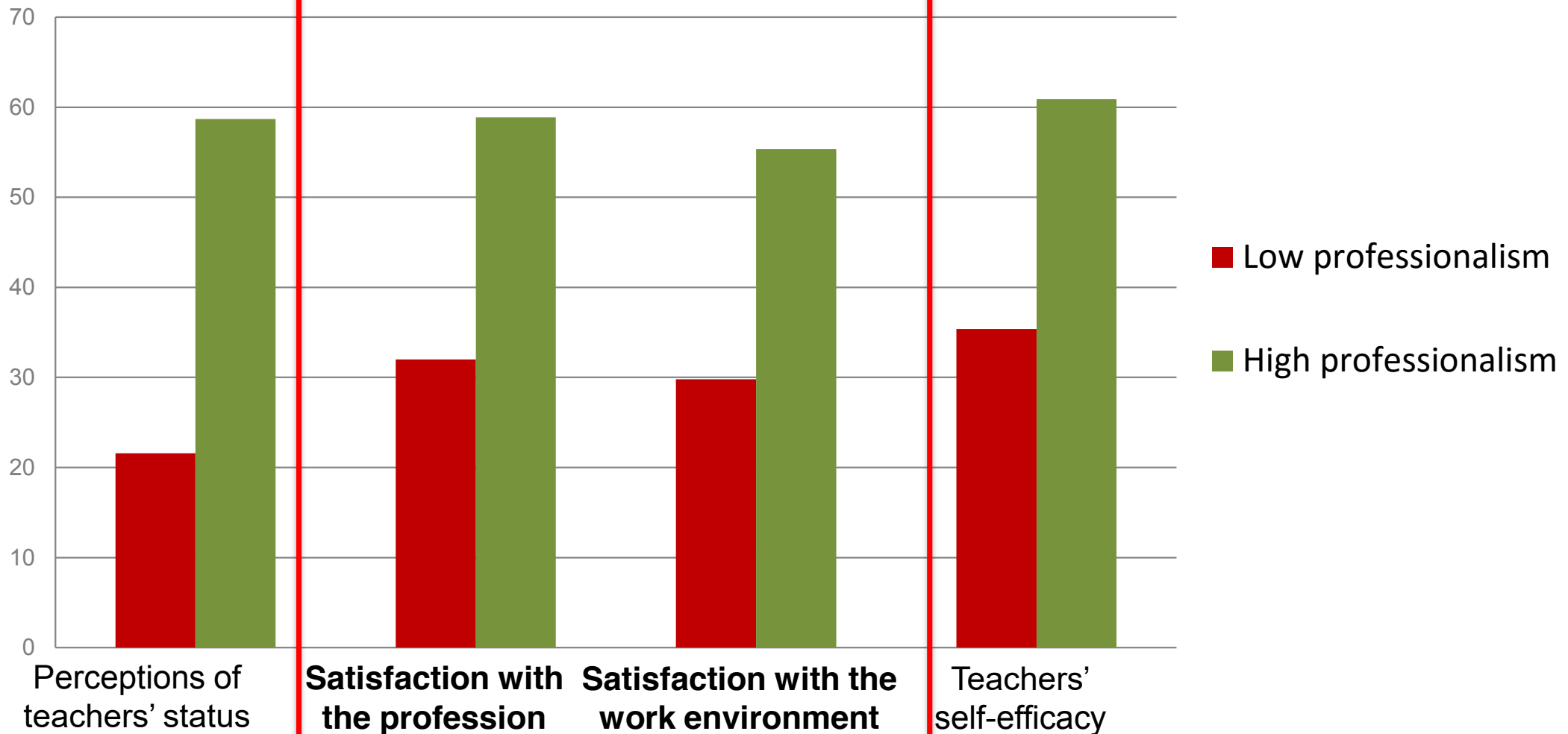
Teachers' job satisfaction

Teachers' job satisfaction and class size
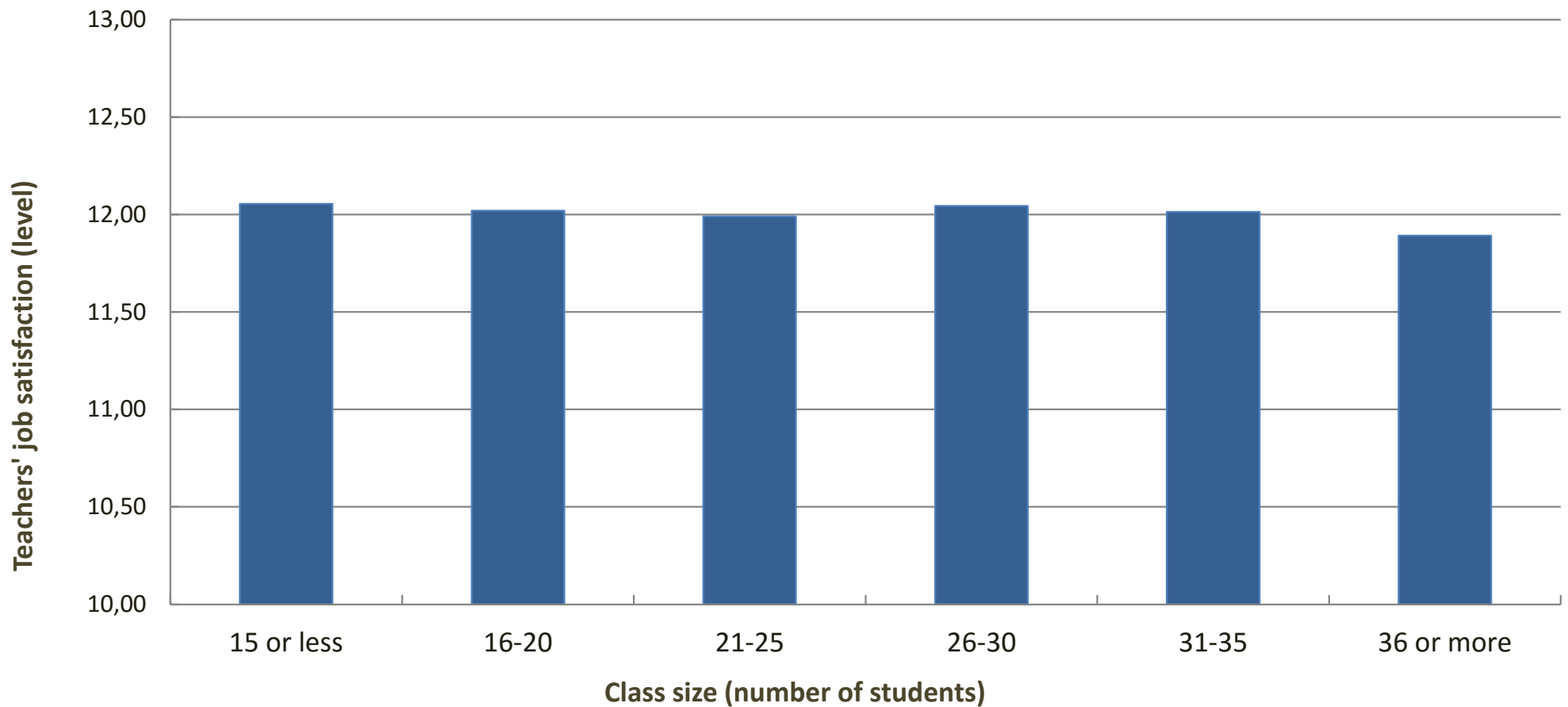
Teacher job satisfaction and professionalism

Professionalism

- Public confidence in profession and professionals
- Professional preparation and learning
- Collective ownership of professional practice
- Decisions made in accordance with the body of knowledge o the profession
- Acceptance of professional responsibility in the name of the profession and accountability towards the profession

Spending per student and learning outcomes

PISA Math Performance

650
600
550
500
450
400
350
300

Shanghai-China
Singapore
Korea
Japan
Switzerland
Viet Nam
Netherlands
Estonia
Poland
Canada
Finland
Belgium
Czech Republic
Germany
Austria
Latvia
New Zealand
Slovenia
Australia
Denmark
France
Ireland
UK
Norway
Luxembourg
Portugal
Iceland
Lithuania
Croatia
Slovak Republic
Italy
Sweden
United States
Hungary
Israel
Spain
Turkey
Bulgaria
Thailand
Chile
Malaysia
Mexico
Uruguay
Montenegro
Tunisia
Brazil
Jordan
Colombia
Peru

Low spending   **High spending**

0   20 000   40 000   60 000   80 000   100 000   120 000   140 000   160 000   180 000   200 000

Average spending per student from the age of 6 to 15 (USD, PPPs)

Countries spend their money differently

Contribution of various factors to salary cost of teachers per student in public institutions, lower secondary education (2015)
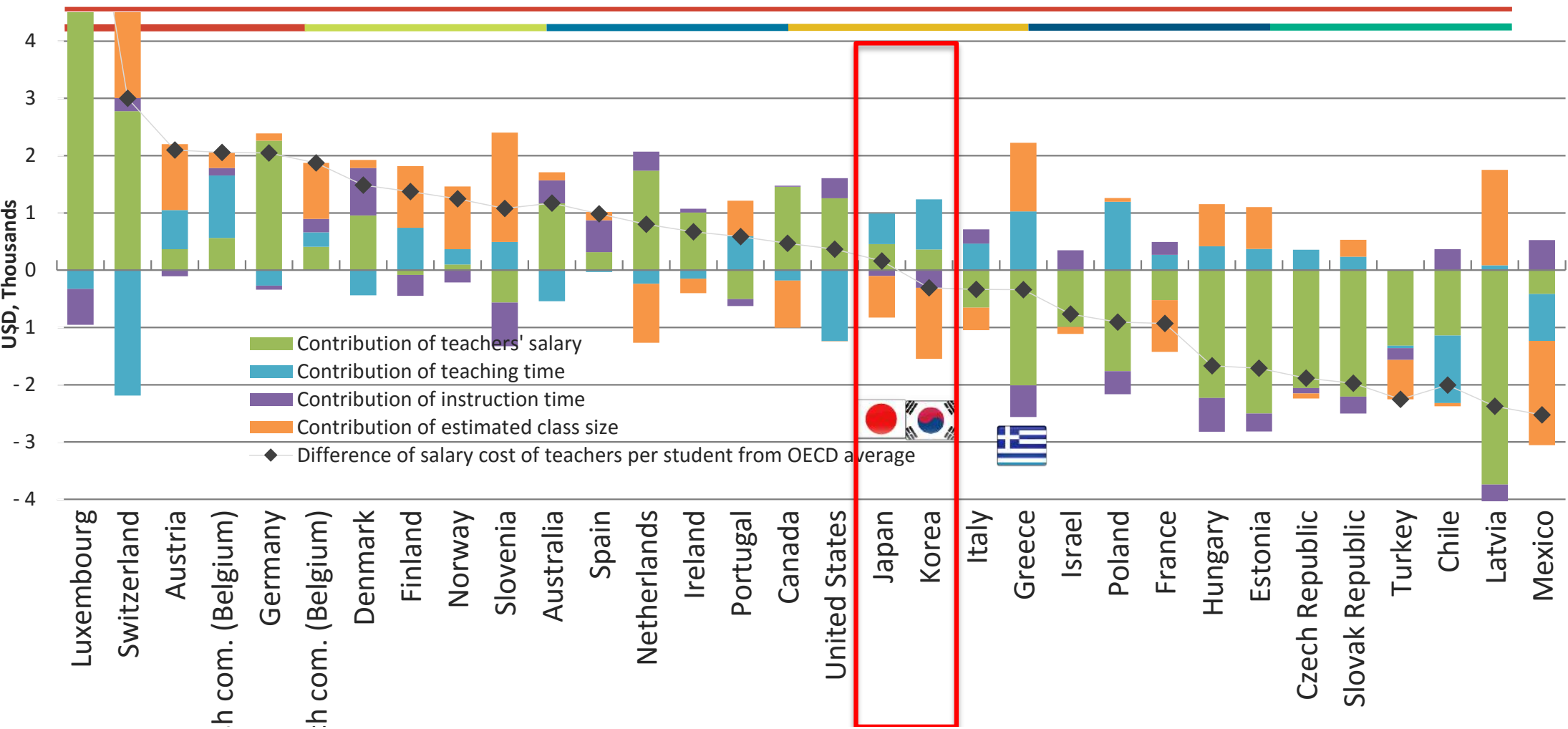
Session 1

Schools at the centre of communities

Powerful learning environments are constantly creating synergies and finding new ways to enhance professional, social and cultural capital with others. They do that with families and communities, with higher education, with other schools and learning environments, and with businesses.

Schools and communities: a virtuous relationship

Schools can become partners in serving the needs of local communities, especially in disadvantaged communities

Successful schools draw on the resources and support of their communities

Schools engage parents and families in learning, and also draw on resources of local enterprises, community organisations, social services, and sports and cultural institutions, such as museums, theatres or libraries

Schools

Schools at the centre of their communities are often the most successful schools.

Communities

Extracurricular activities that enrich communities in sports, social care and volunteering

Service learning

Schools are vital to the social health of their local communities

Research projects offer innovative answers to the needs of local enterprises, while enhancing entrepreneurialism among students and providing real-world experiences.

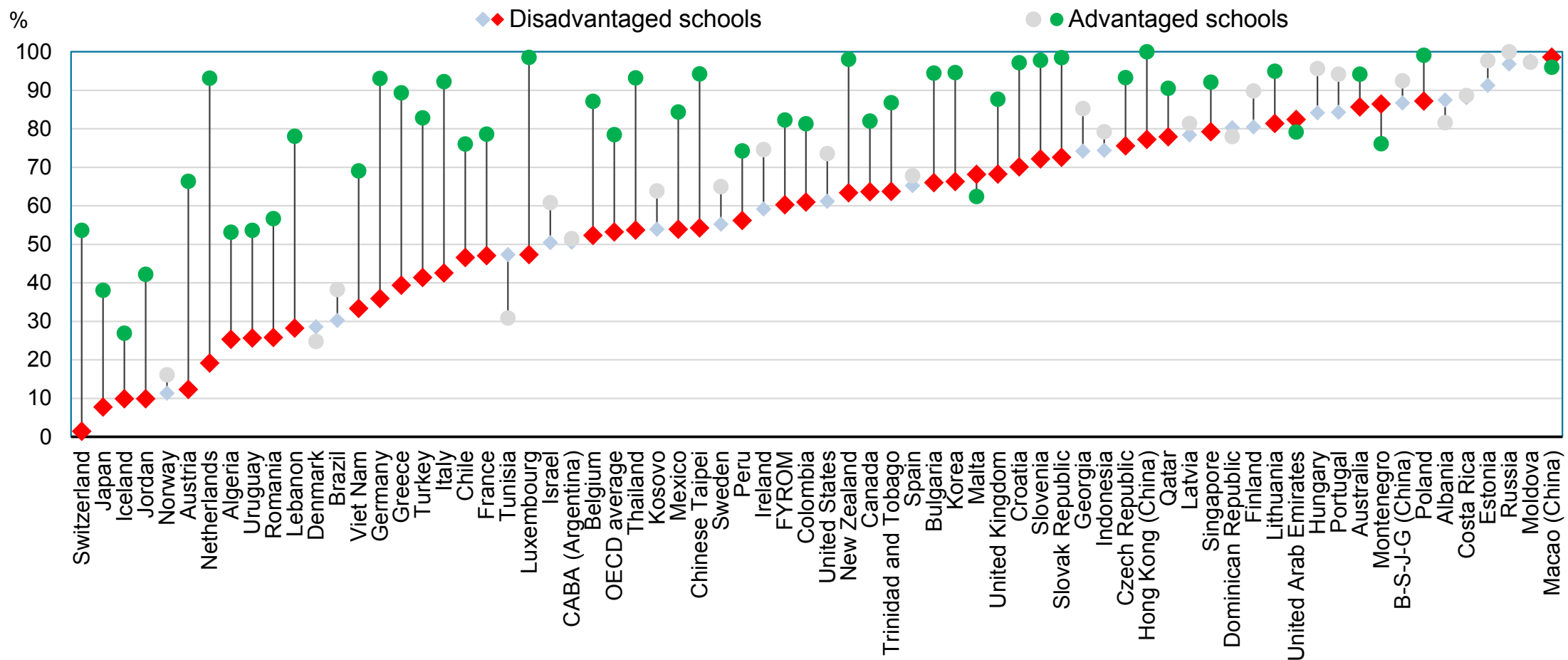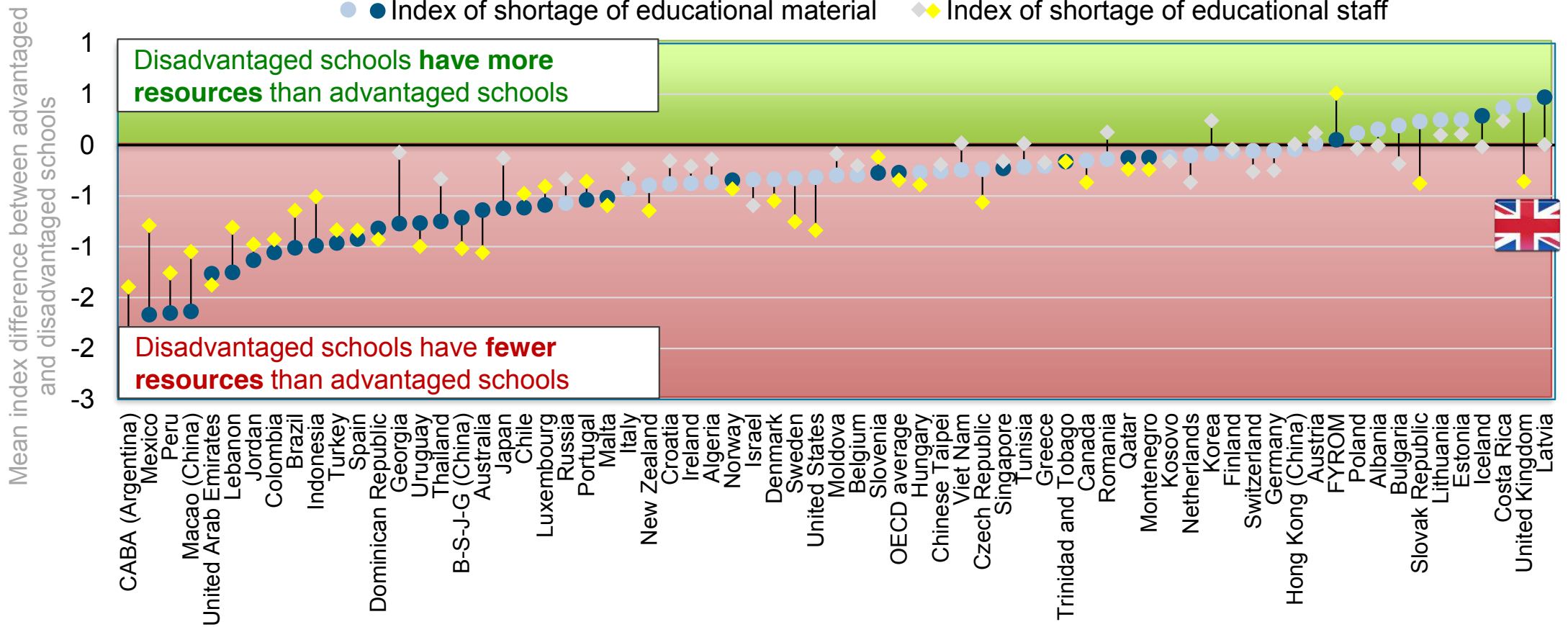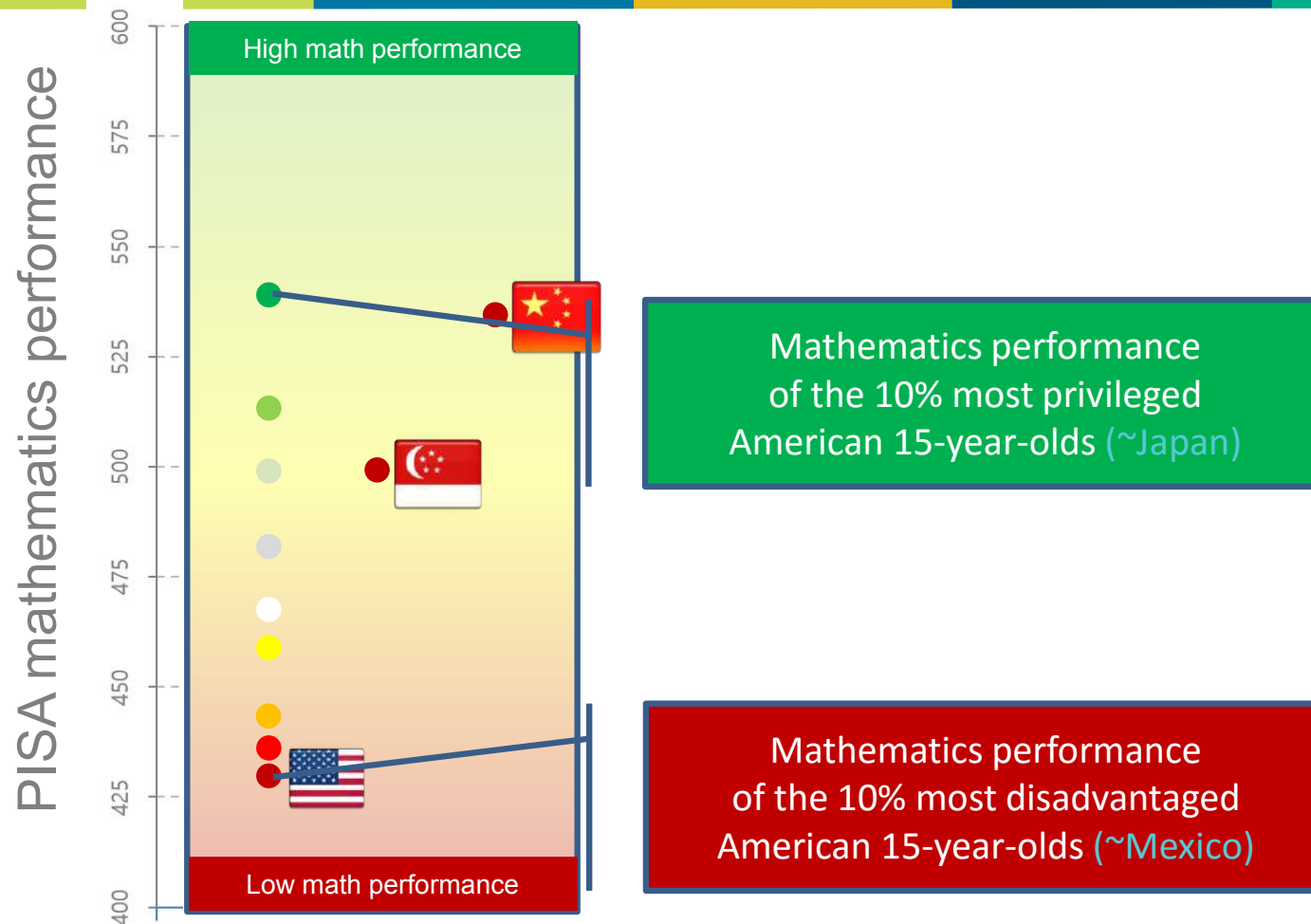# Science competitions offered at school, by schools' socio-economic profile

Differences in educational resources

between advantaged and disadvantaged schools

Figure I.6.14

Poverty need not be destiny:

PISA math performance by decile of social background

PISA mathematics performance

High math performance

Low math performance

Mathematics performance
of the 10% most privileged
American 15-year-olds (~Japan)

Mathematics performance
of the 10% most disadvantaged
American 15-year-olds (~Mexico)

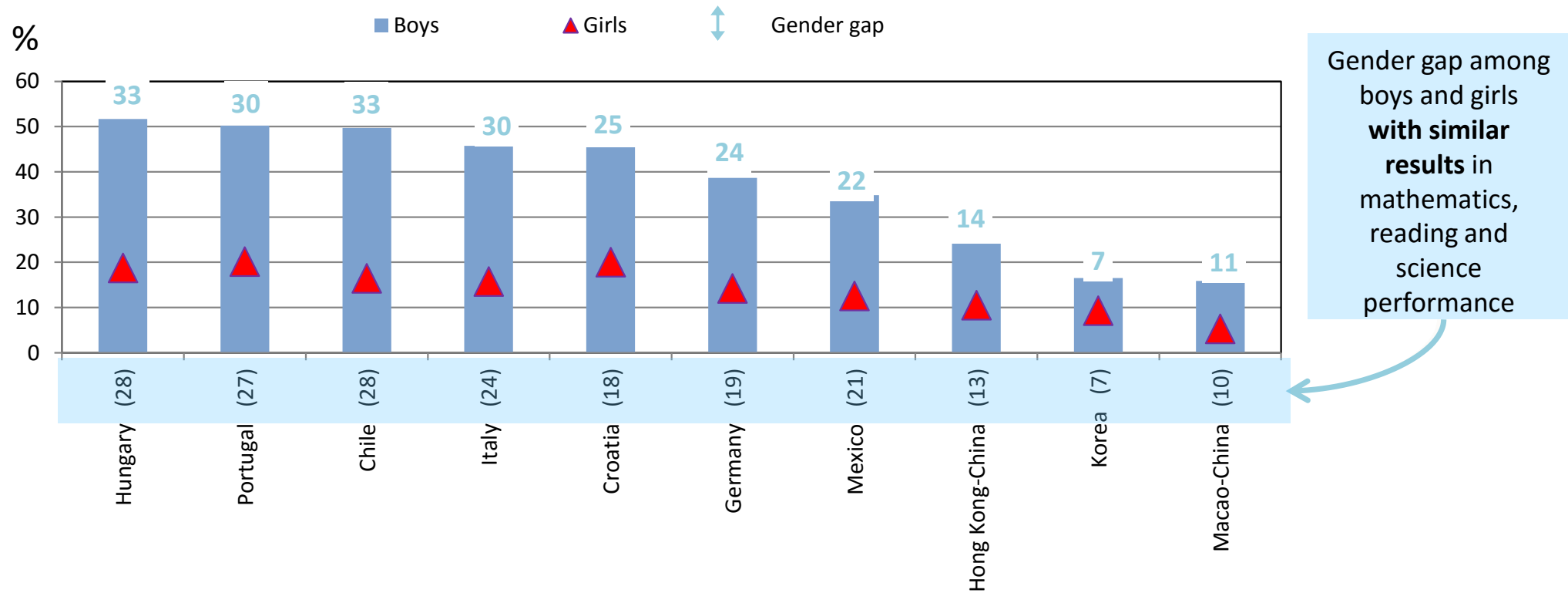Parents' interest in their child's activities at school and well-being (average)
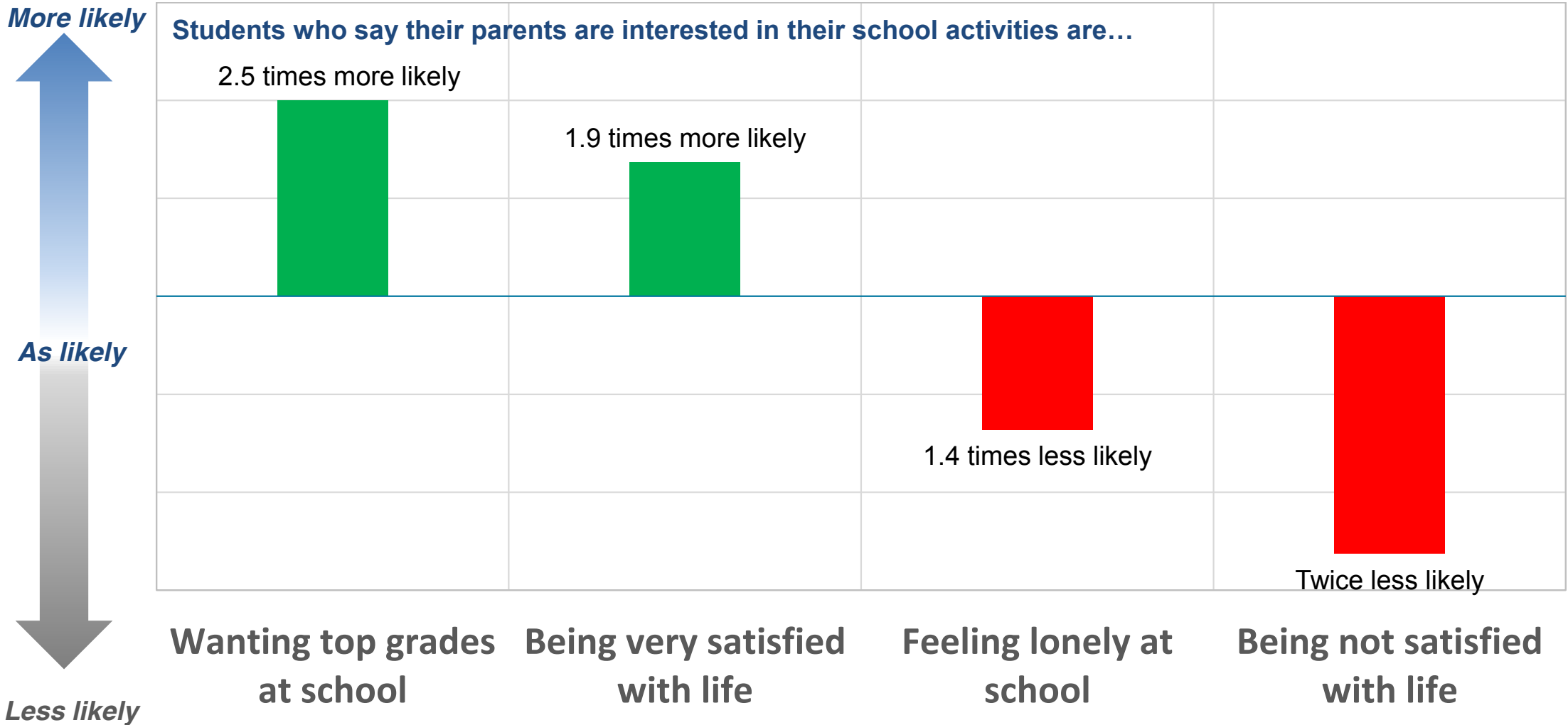
Parents are more likely to expect their sons, rather than their daughters, to enter a STEM career – even when boys and girls perform equally well in school

Percentage of students whose parents expect that they will work in STEM occupations

■ Boys   ▲ Girls   ↕ Gender gap

Gender gap among boys and girls **with similar results** in mathematics, reading and science performance

%

Country	Value
Hungary (28)	33
Portugal (27)	30
Chile (28)	33
Italy (24)	30
Croatia (18)	25
Germany (19)	24
Mexico (21)	22
Hong Kong-China (13)	14
Korea (7)	7
Macao-China (10)	11

STEM stands for science, technology, engineering and mathematics.
Source: Figure 5.1 (PISA 2012, ABC of gender equality)

What is holding change back?

What is holding change back?

- Scale and reach of the sector
  - Everyone has participated, so everyone has an opinion
- Everyone has a stake
  - Everyone supports reform – except for their own children
  - Those who promote reforms often change their mind when they understand what change actually entails
- Education has a highly visible presence
  - There is no reform by stealth
- The frogs don't clear the swamp
  - The loss of privilege is pervasive simply because of the extent of vested interests in maintaining the status quo.

What is holding change back?

- You can lose an election but you don't win one over education
  - Complexity and length of reform trajectory that extend electoral cycles
  - A substantial gap between the time when the cost of reform is incurred, and the time when benefits materialise
- Asymmetry of costs and benefits of educational reform
  - Reform is easy to derail by vocal interest groups
  - Costs are certain, benefits not
- Provider capture
  - Teachers often command greater public trust than politicians
  - Even when parents have a poor opinion of the education system, they will generally view the school of their children and its teachers positively

What is holding change back?

- ## Absence of supportive ecosystems
  - Lack of an education industry that pushes innovation and absorbs risks
  - A research sector that is disengaged from the real needs of real people and real classrooms

- ## Absence of systematic reform evaluation

- ## Lack of leadership capacity
  - Limited career structures

Effective governance…

Focuses on processes, not structures

- Number of levels and power at each are not what make or break a good system, but rather the strength of the alignment across the system, the involvement of actors and the processes underlying governance and reform.

Is flexible and able to adapt to change and unexpected events

- Strengthening a system's ability to learn from feedback is fundamental

Works through building capacity, stakeholder involvement and open dialogue

- Involvement of more stakeholders only works when there is a strategic vision and a set of processes to harness their ideas and input

Requires a whole-of-system approach

- Aligning policies, roles and responsibilities to improve efficiency and reduce potential overlap

Harnesses evidence and research to inform policy and reform

- A strong knowledge system combines data, research findings and expert practitioner knowledge. The key is knowing what to use, when, why and how.

What can policy do?

Strive for consensus without compromising drive for improvement

- Acknowledge divergent interests and provide mechanisms for institutionalized consultation
- Build effective partnerships

Engage teachers not just in implementation of reform but in their design

Use and evaluate pilots

- Policy experimentation can help build consensus on implementation and can prove powerful in testing out policy initiatives and – by virtue of their temporary nature and limited scope – overcoming fears and resistance by specific groups of stakeholders

Back reforms with sustainable capacity

Time implementation carefully

Thank you

Find out more about our work at www.oecd.org/pisa

- All publications
- The complete micro-level database

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Twitter: **SchleicherOECD**

Wechat: **AndreasSchleicher**