



TECNOLÓGICO
DE MONTERREY.



Las habilidades de los alumnos para la resolución de problemas: Resultados de PISA **2003**



Organisation for Economic Cooperation and Development (OECD)

PISA Problem-Solving for Tomorrow's World Tec de Monterrey (PISA)

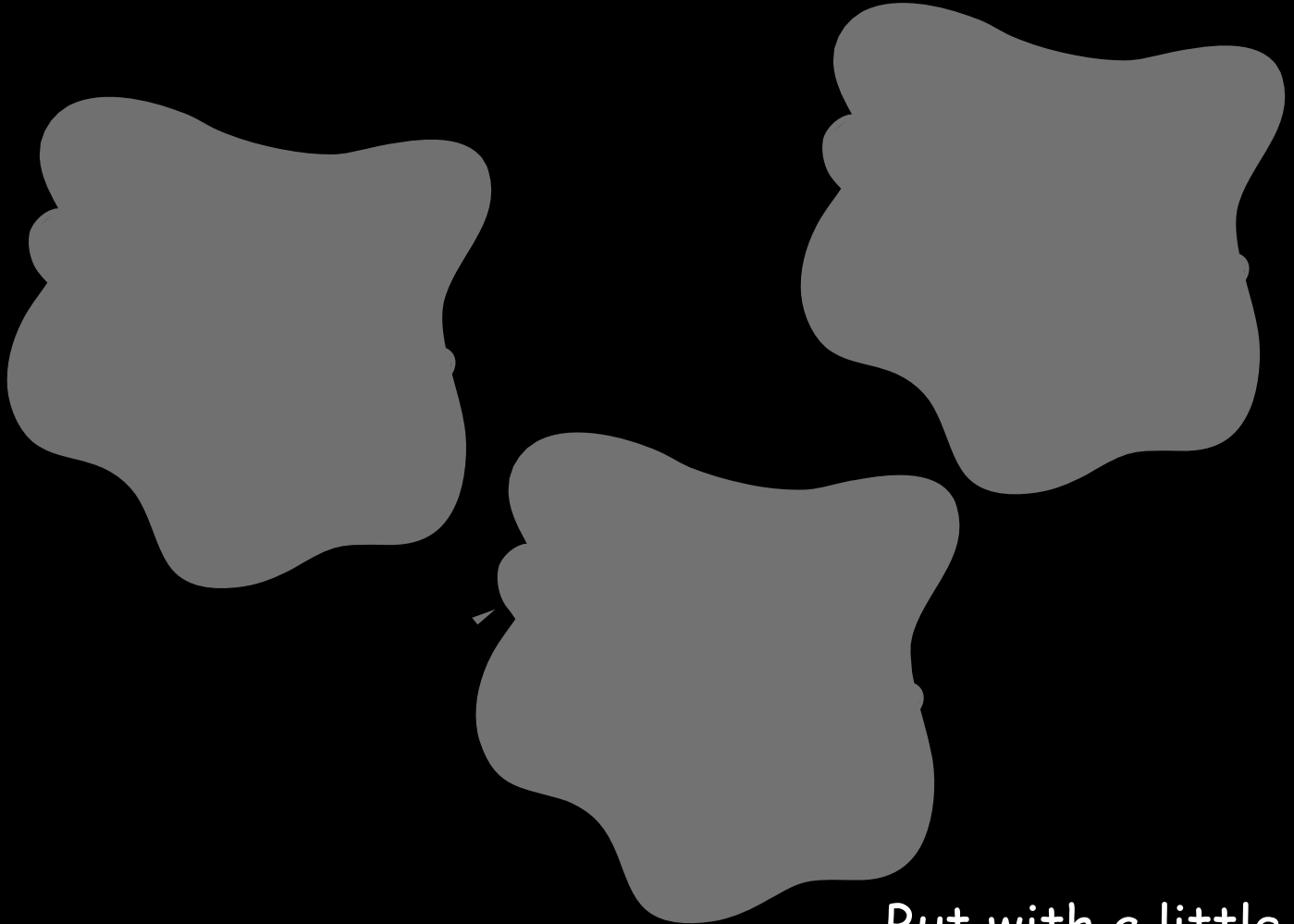
Paris-Mexico, 7 December 2005

Andreas Schleicher

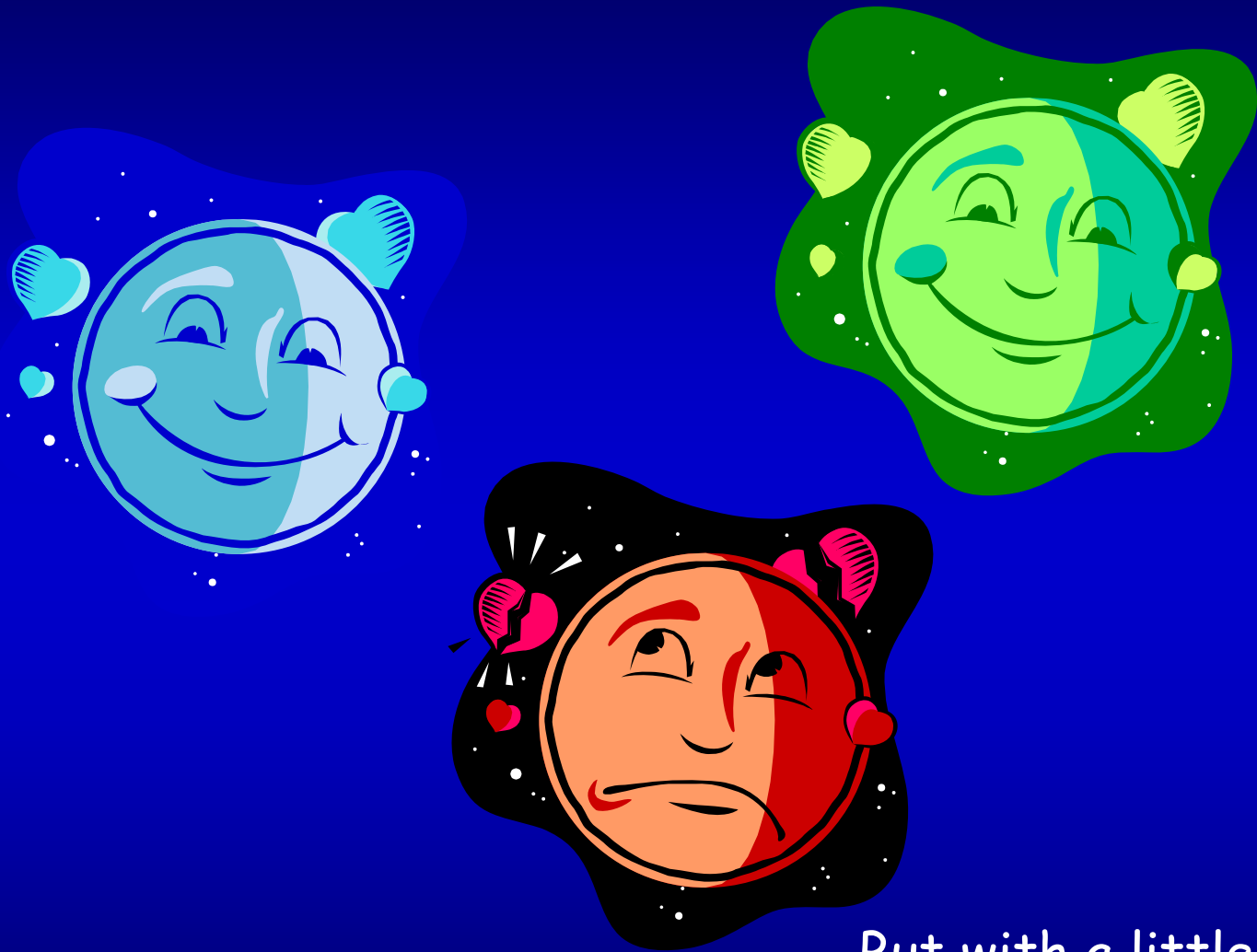
Head, Indicators and Analysis Division

Directorate for Education

In the dark...
...all students, schools and education systems look the same...



But with a little light...

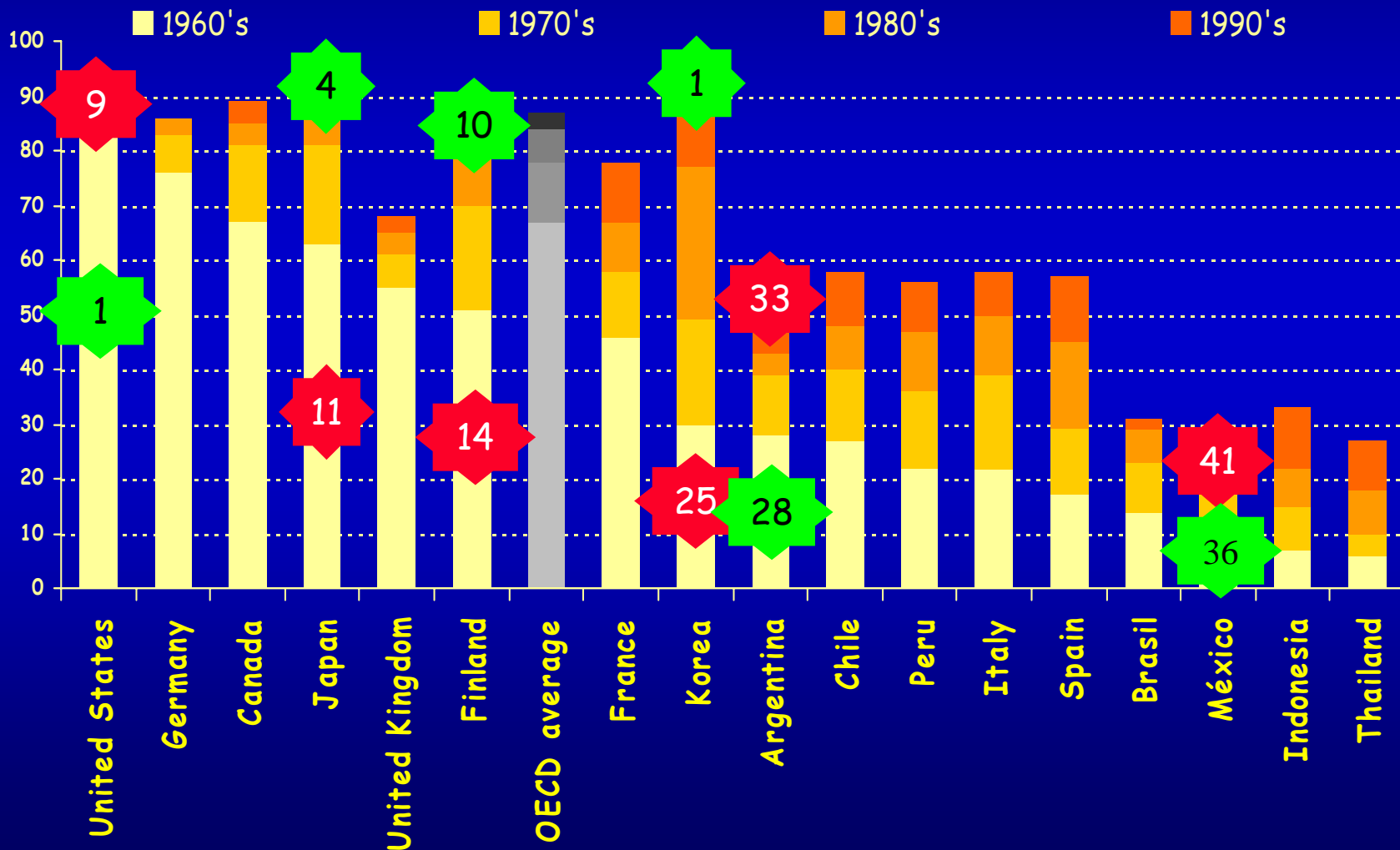


But with a little light...
...important differences become apparent...

Growth in baseline qualifications

A world of change

Approximated by percentage of persons with ISCED3 qualifications in age groups 55-64, 45-55, 45-44 und 25-34 years



Overview

1. The PISA approach

- Objectives and methods underlying PISA

2. Where we are today - and where we can be?

- What PISA shows students in different countries can do with what they have learned
- Examples from the best performing countries

3. How we can get there?

- Some policy levers that emerge from international comparisons
- Policy initiatives of OECD countries in response to PISA results

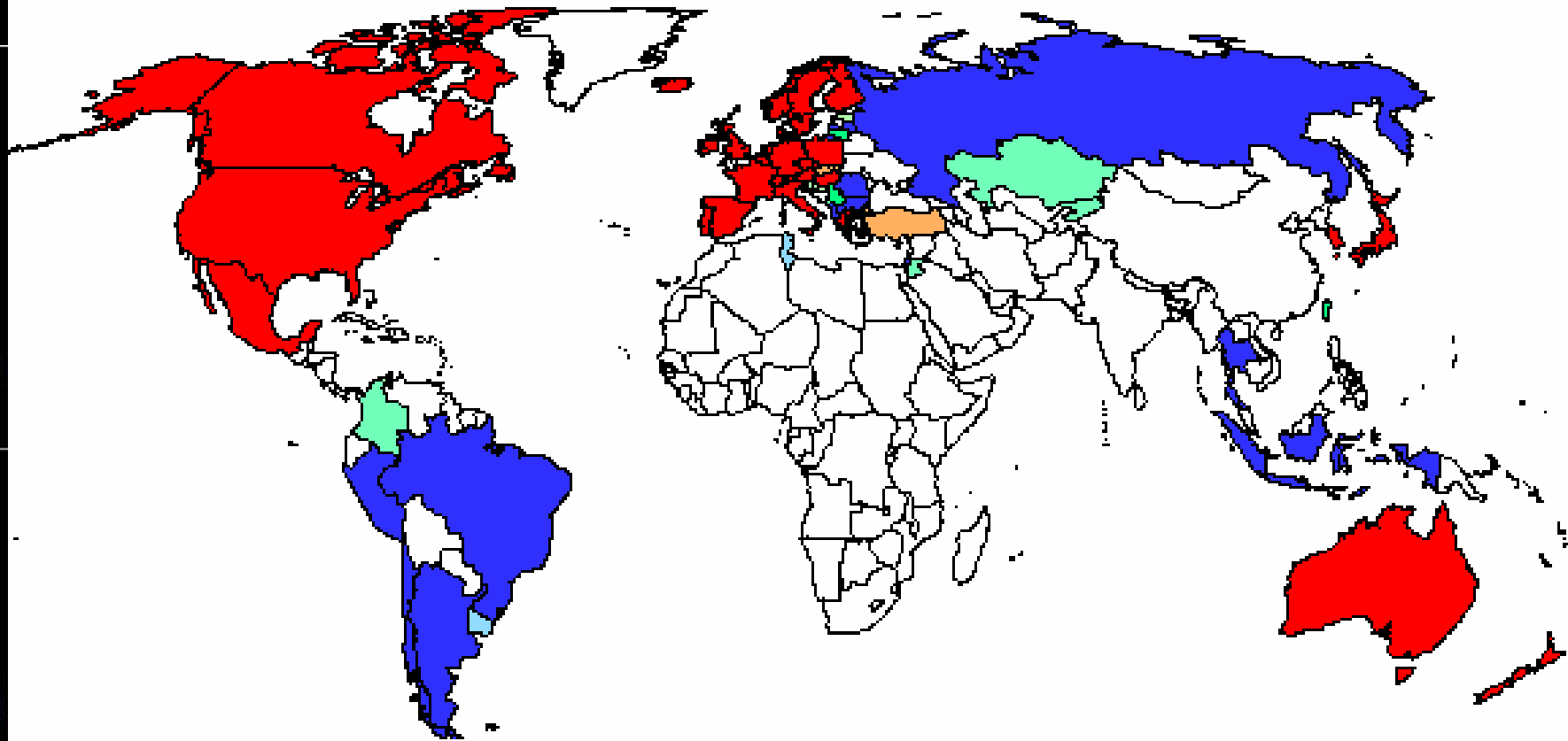
3. How we can make PISA most useful for policy?






- National and multi-lateral PISA components
- Adapting and extending the assessments

The PISA approach

Measuring the quality of learning outcomes

PISA country participation



-  OECD countries participating from PISA 2000
-  OECD countries participating from PISA 2003
-  OECD partner countries participating from PISA 2000
-  OECD partner countries participating from PISA 2003
-  OECD partner countries participating from PISA 2006

Deciding what to assess...

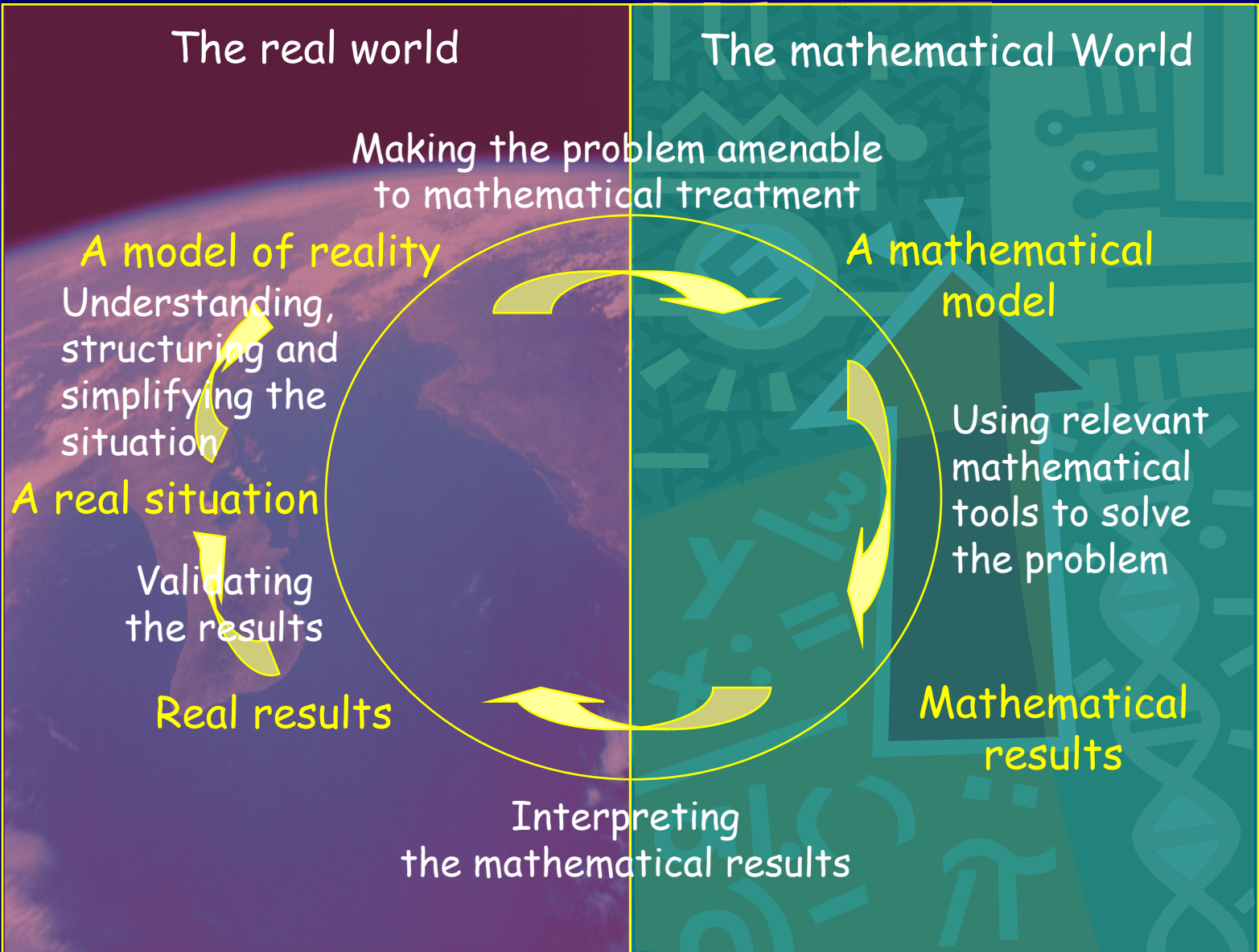
looking back at what students were
expected to have learned

...or...

looking ahead to what they can do with
what they have learned.

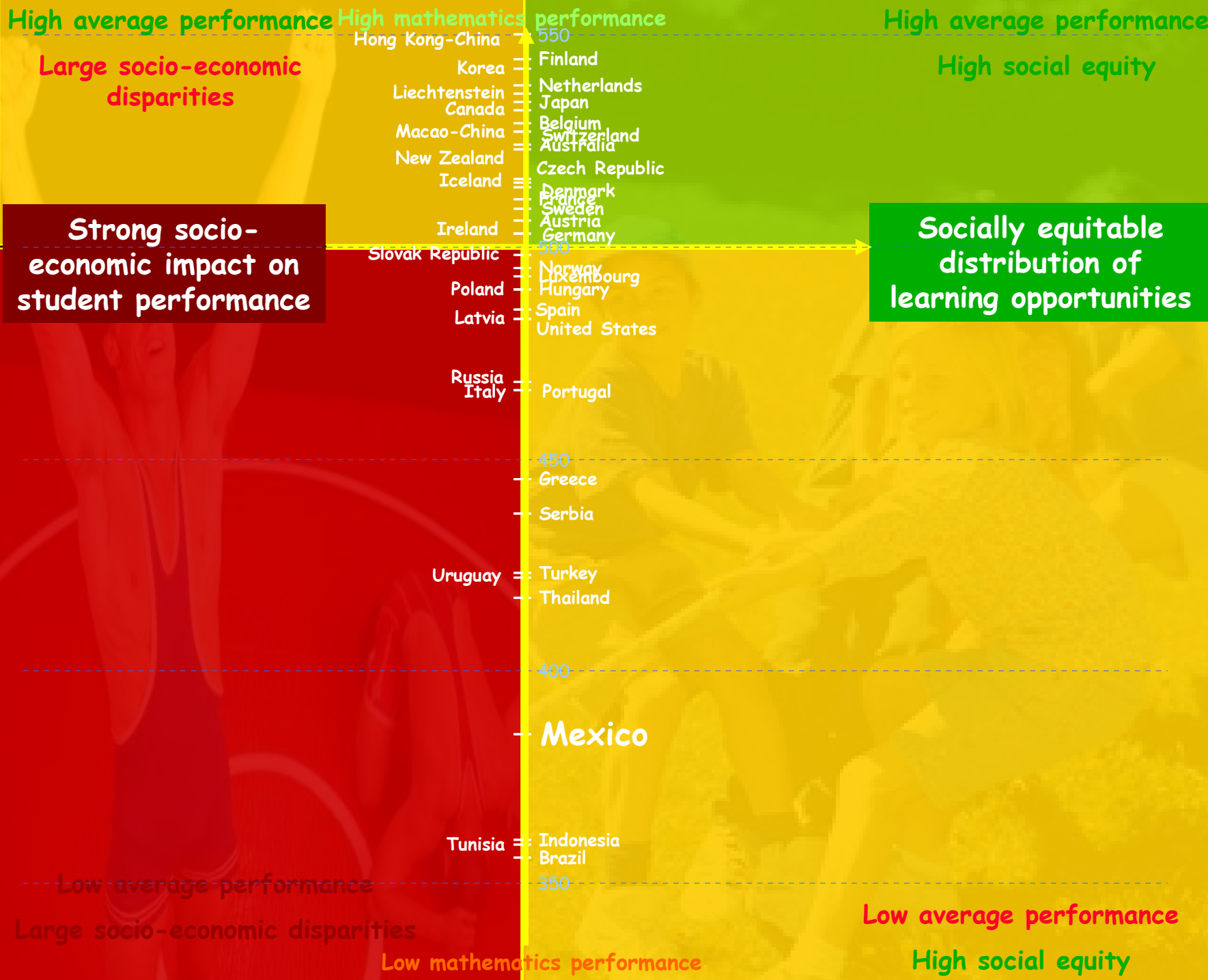
For PISA, the OECD countries chose the latter.

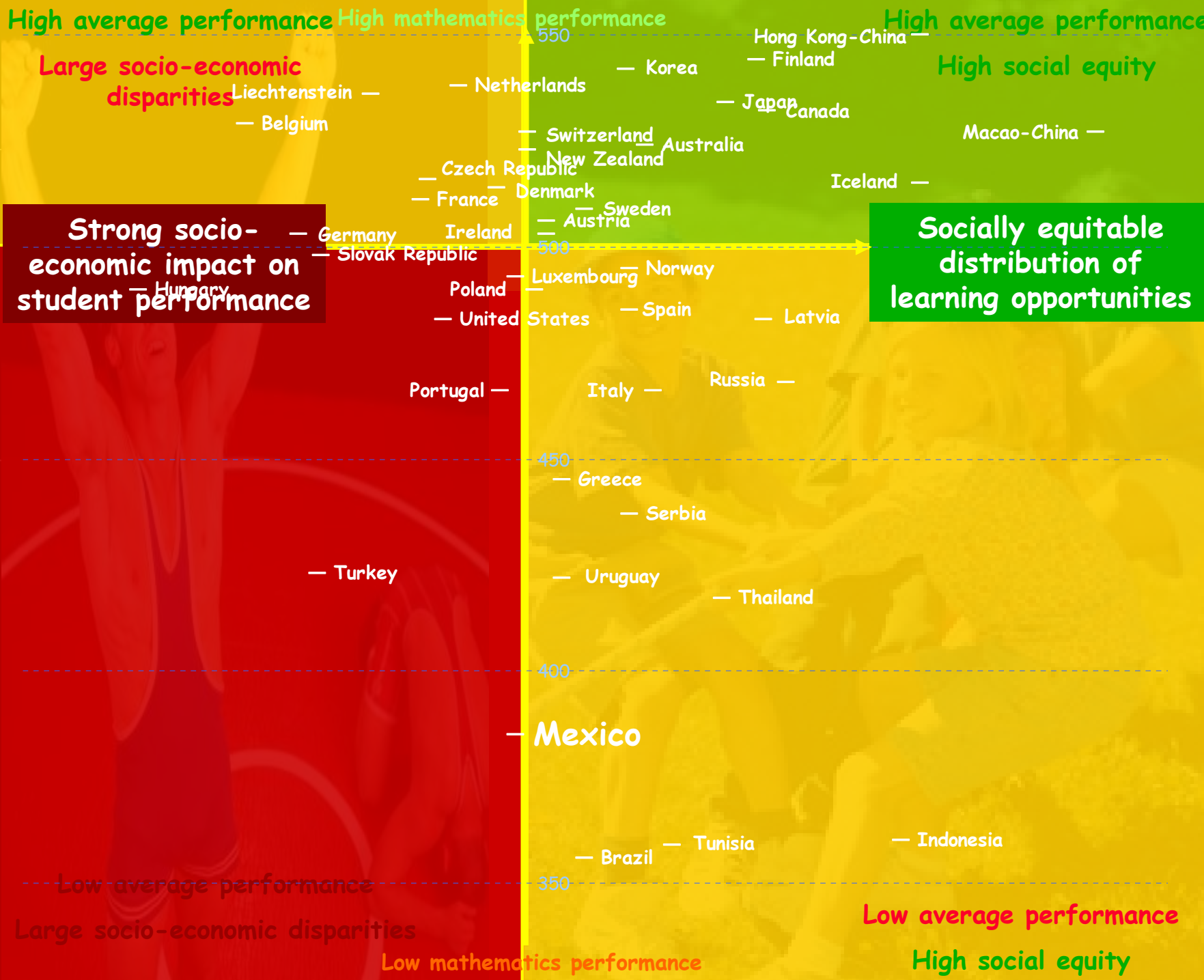
Mathematical literacy in PISA



Where we are - and where we can be

What PISA shows students can do
Examples of the best performing countries

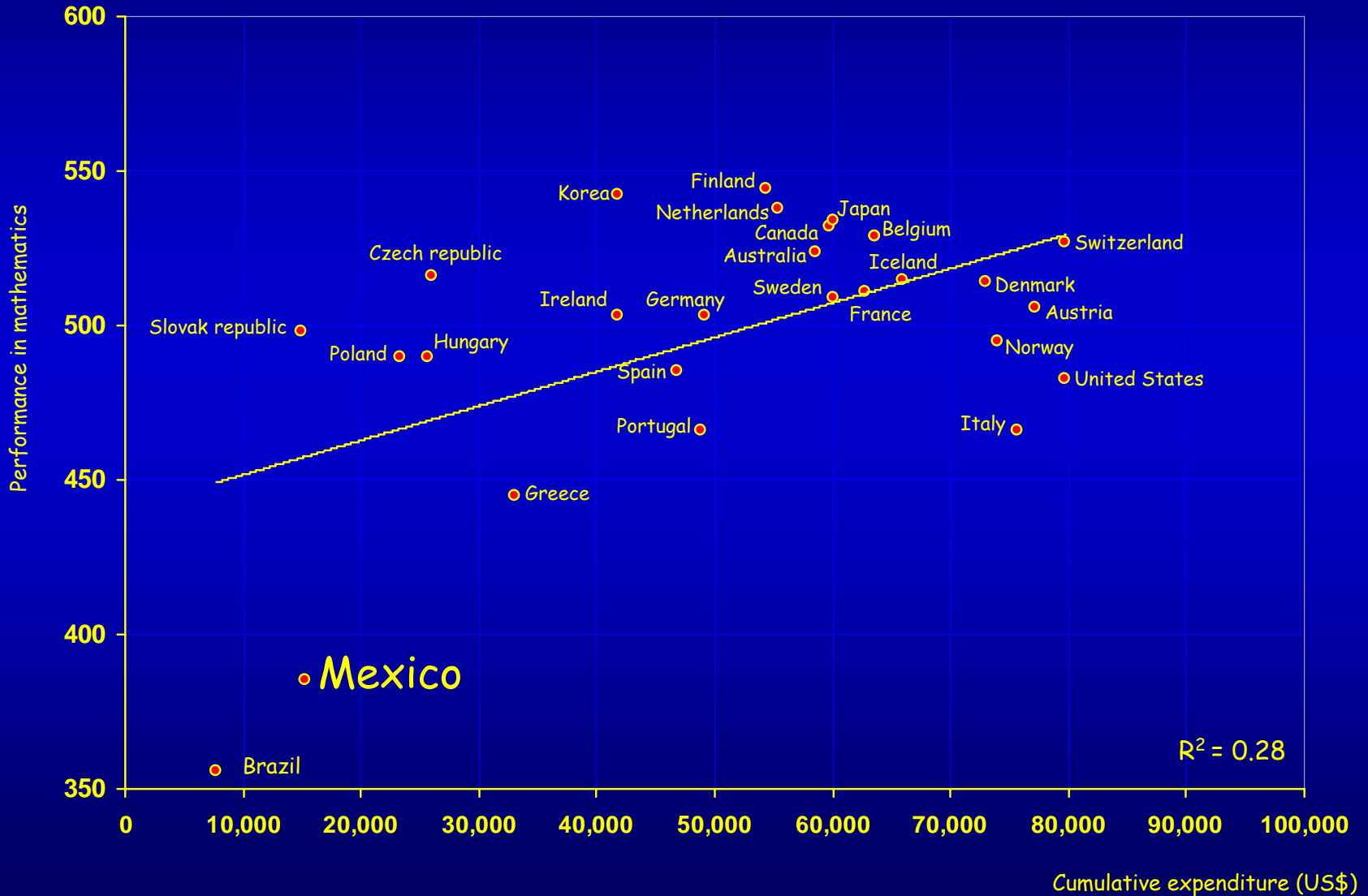




How can we learn from each other?

Levers for policy that emerge from international comparisons

Money matters but other things do too



Sympathy doesn't raise standards - aspiration does

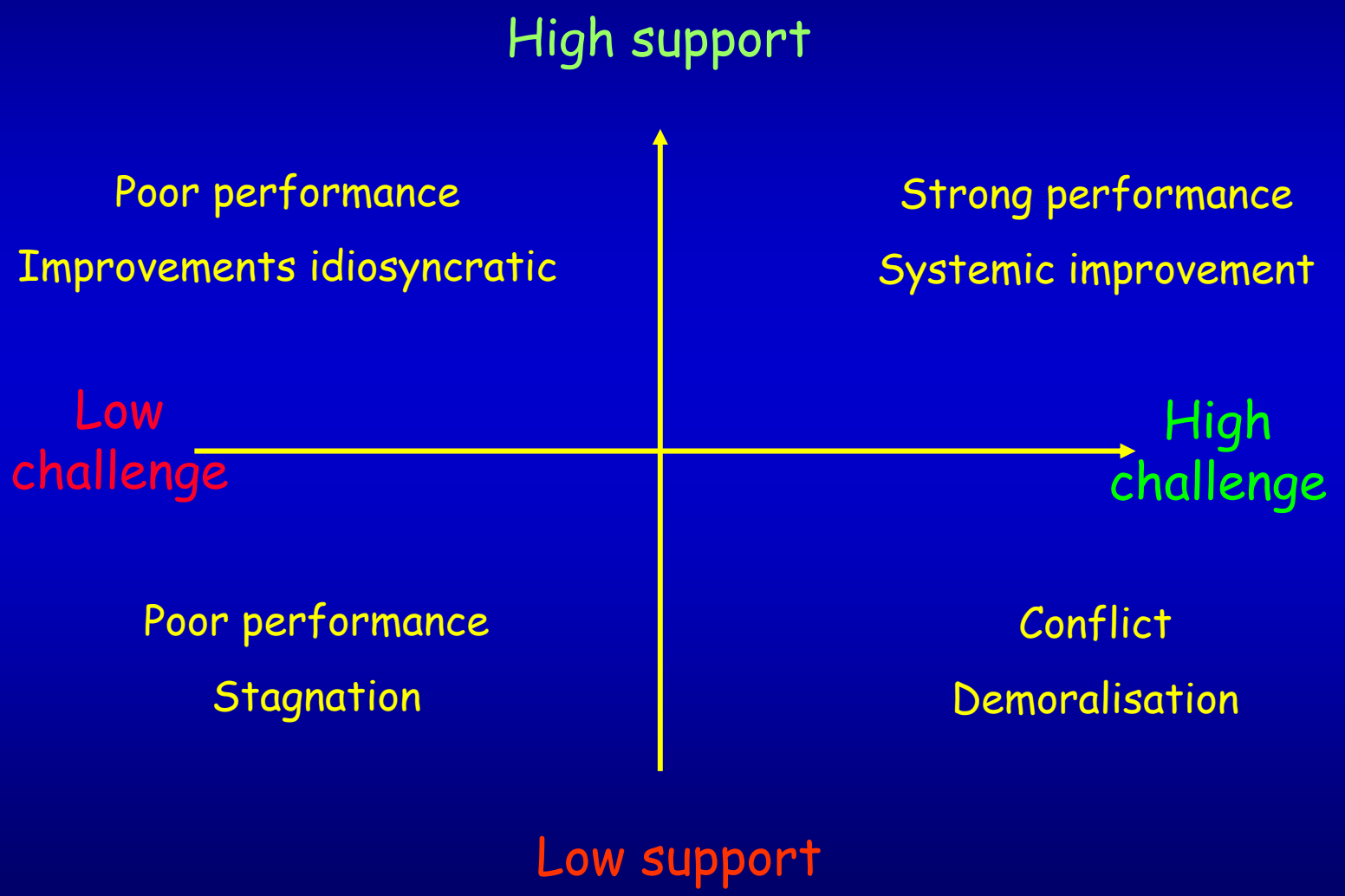
- In some of the best-performing countries
 - National research teams report a strong "culture of performance"
 - Which drives students, parents, teachers and the educational administration to high performance standards
- PISA suggests...
 - ... that students and schools perform better in a climate characterised by high expectations and the readiness to invest effort, the enjoyment of learning, a strong disciplinary climate, and good teacher-student relations
 - Among these aspects, students' perception of teacher-student relations and classroom disciplinary climate display the strongest relationships



High ambitions
and clear standards

Access to best practice
and quality professional
development

Challenge and support



Governance of the school system

Monitoring and equity-related goals

- Diverging views how evaluation and assessment can and should be used
 - Some see them primarily as tools to reveal best practices and identify shared problems in order to encourage teachers and schools to improve and develop more supportive and productive learning environments
 - Others extend their purpose to support contestability of public services or market-mechanisms in the allocation of resources
 - e.g. by making comparative results of schools publicly available to facilitate parental choice or by having funds following students
- Differences in type of performance benchmarks being used and reported for the various stakeholders involved, including parents, teachers and schools



High mathematics performance

High average performance

High average performance

Large socio-economic disparities

High social equity

Hong Kong-China

- Korea

- Finland

540

- Netherlands

- Liechtenstein

- Belgium

- Japan

- Canada

- Switzerland

- Australia

- New Zealand

520

- Czech Republic

- Denmark

- Iceland

- France

- Sweden

- Austria

Socially equitable distribution of learning opportunities

Strong socio-economic impact on student performance

- Germany

- Ireland

500

- Slovak Republic

- Norway

- Hungary

- Poland

- Luxembourg

- United States

- Spain

- Latvia

480

- Portugal

- Russian Federation

- Italy

Low average performance

460

Low average performance

Large socio-economic disparities

High social equity

Low mathematics performance

- Greece



High mathematics performance

Strong socio-economic impact on student performance

Socially equitable distribution of learning opportunities

School with responsibility for deciding which courses are offered



High degree of autonomy



Low degree of autonomy





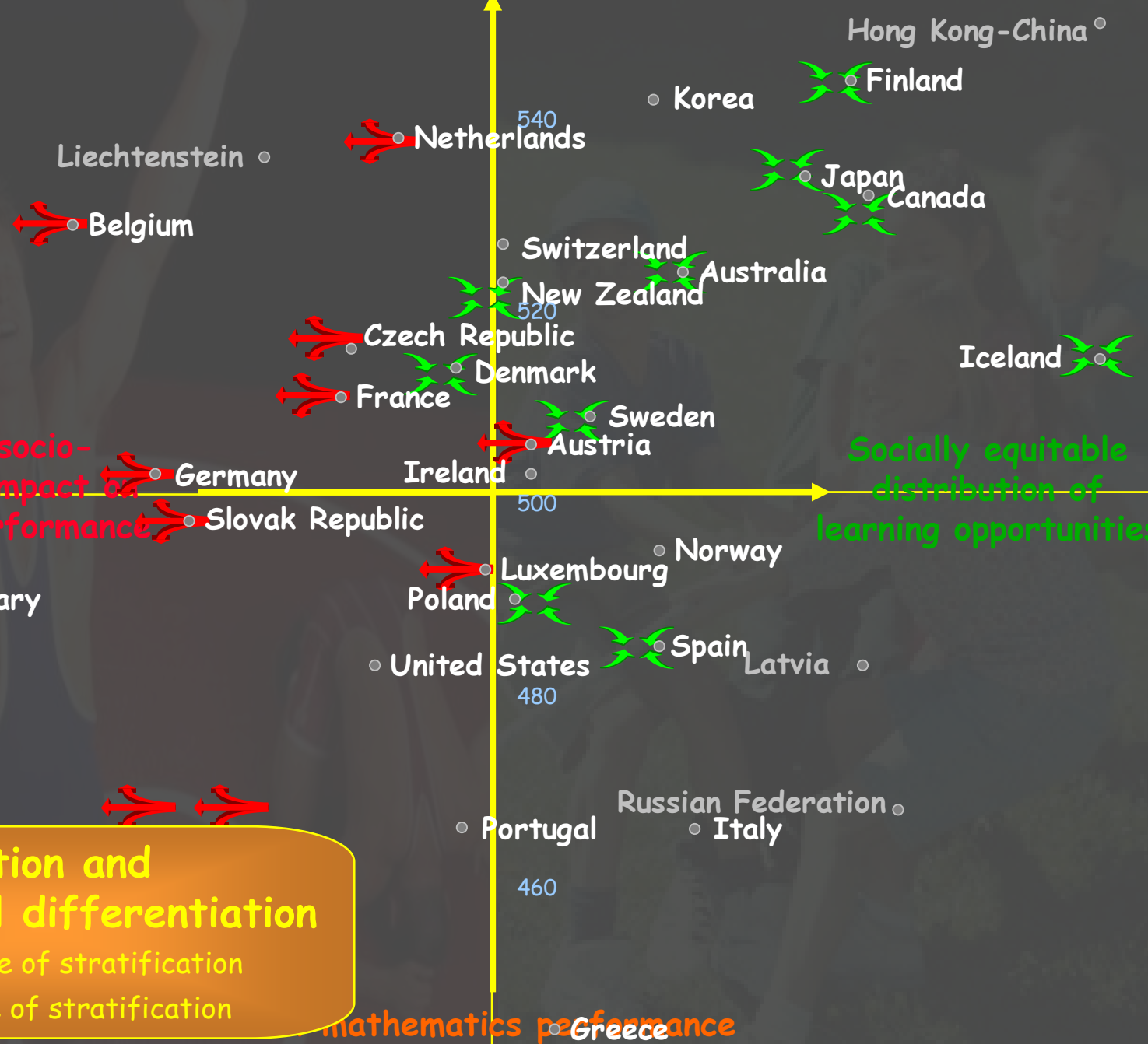
High mathematics performance

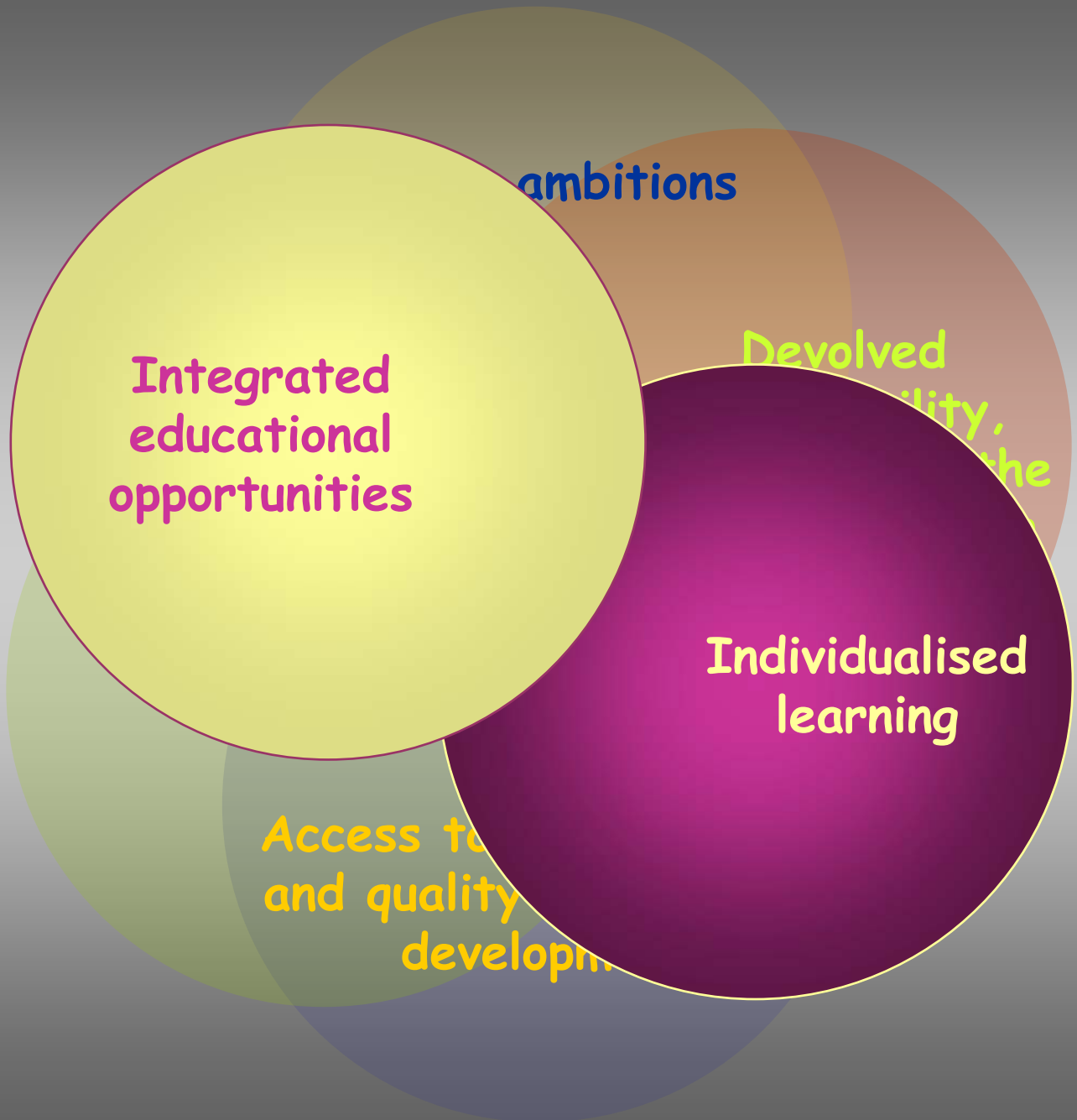
Strong socio-economic impact on student performance

Socially equitable distribution of learning opportunities

Early selection and institutional differentiation

- High degree of stratification
- Low degree of stratification





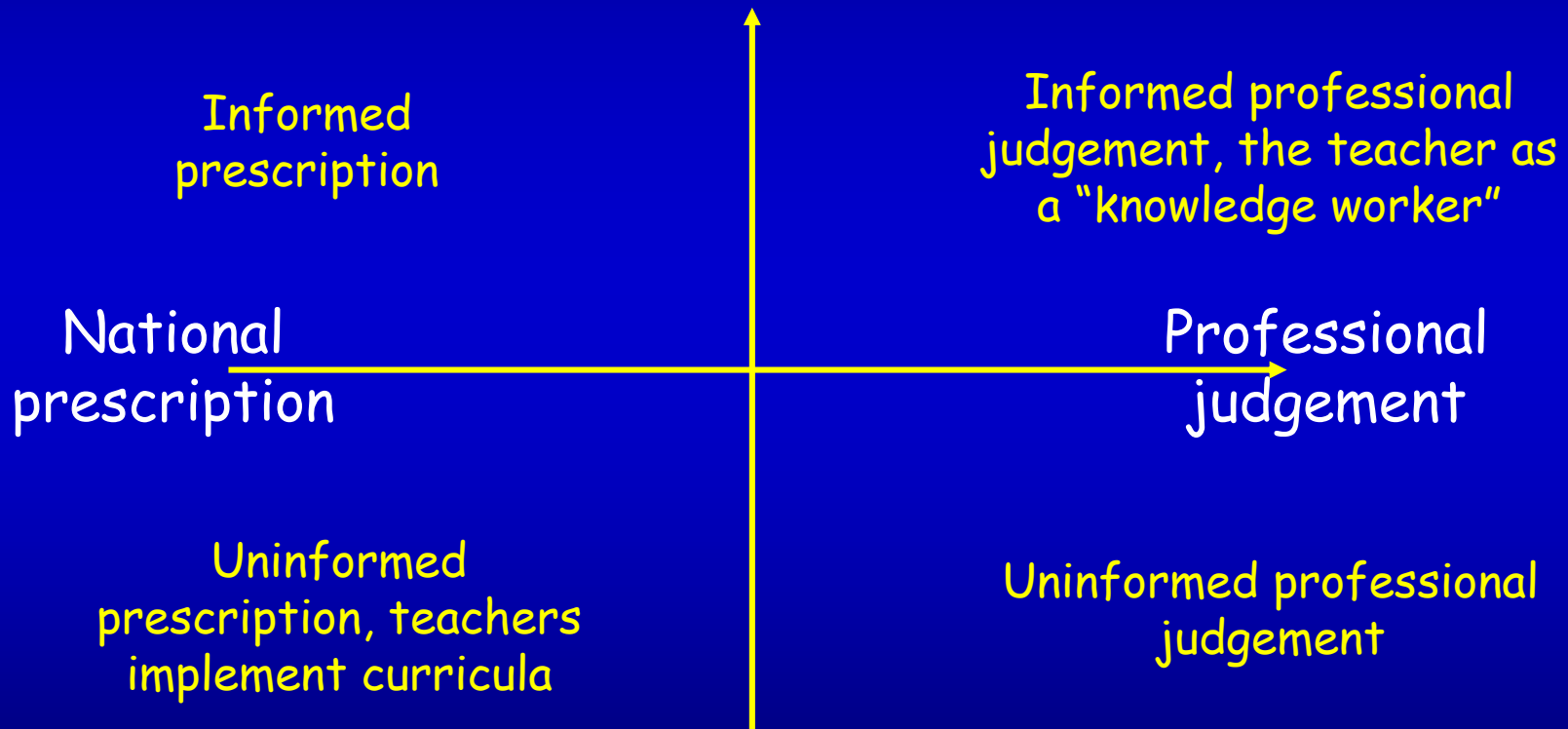


And the reality today?



Creating a knowledge-rich profession in which schools and teachers have the authority to act, the necessary knowledge to do so wisely, and access to effective support systems

The future of education systems needs to be "knowledge rich"



The tradition of education systems has been "knowledge poor"

Further information

- www.pisa.oecd.org
 - All national and international publications
 - The complete micro-level database
- email: pisa@oecd.org
- Andreas.Schleicher@OECD.org

... and remember:

Without data, you are just another person
with an opinion

How can make PISA most useful for national policy development?

Policy initiatives of OECD countries
National adaptation of PISA

Policy initiatives in response to PISA

some examples

□ Among the top performers

- Finland:
 - In-depths analysis of the threats to current strengths
 - Attracting, developing and retaining effective teachers
 - Maintaining flexibility of the education system and responding to increasing diversity in the student body
 - Ensuring strategic support and financing of schools
- Japan:
 - A national debate on educational reform
 - Improving student motivation and engagement with learning

Policy initiatives in response to PISA

some examples

□ Among average performers

- Denmark:
 - An OECD-led comprehensive review that resulted in specific recommendations
 - Introduction of assessments of educational progress at key stages
 - Turning PISA into an asset for professionalism
- Germany:
 - Massive increase in federal financing for education (30+%)
 - Comprehensive full-day schooling programme
 - Introduction of national educational standards and evaluation systems
 - Introduction of an independent national reporting and accountability system
 - Strengthening of empirical research
 - Targeting of poor performers and disadvantaged students

Policy initiatives in response to PISA

some examples

□ Among below-average performers

- Italy:

- The first coherent action plan to address large regional and between-school variation in the quality of learning outcomes
- Establishment of national and regional task forces
 - Individualising learning
 - Teacher professional development
 - School leadership
 - Accountability and autonomy

Making PISA relevant

- The value of multi-lateral collaboration
 - Examples where collaboration makes a difference
 - Nordic countries, German-speaking countries
- The possibility to adapt or extend the tests
 - Adding national assessment components
 - Extending the range of item difficulties
- The need to develop a national research agenda that drives instrument development
 - Adapting or extending the tests
 - Curriculum link and validation studies
 - Extending the range of difficulties
 - Adapting and extending the questionnaires
 - Multilateral analysis and research