



OECD REVIEW OF THE ITALIAN STRATEGY FOR DIGITAL SCHOOLS

Francesco Avvisati, Sara Hennesy, Robert B. Kozma,
Stéphan Vincent-Lancrin

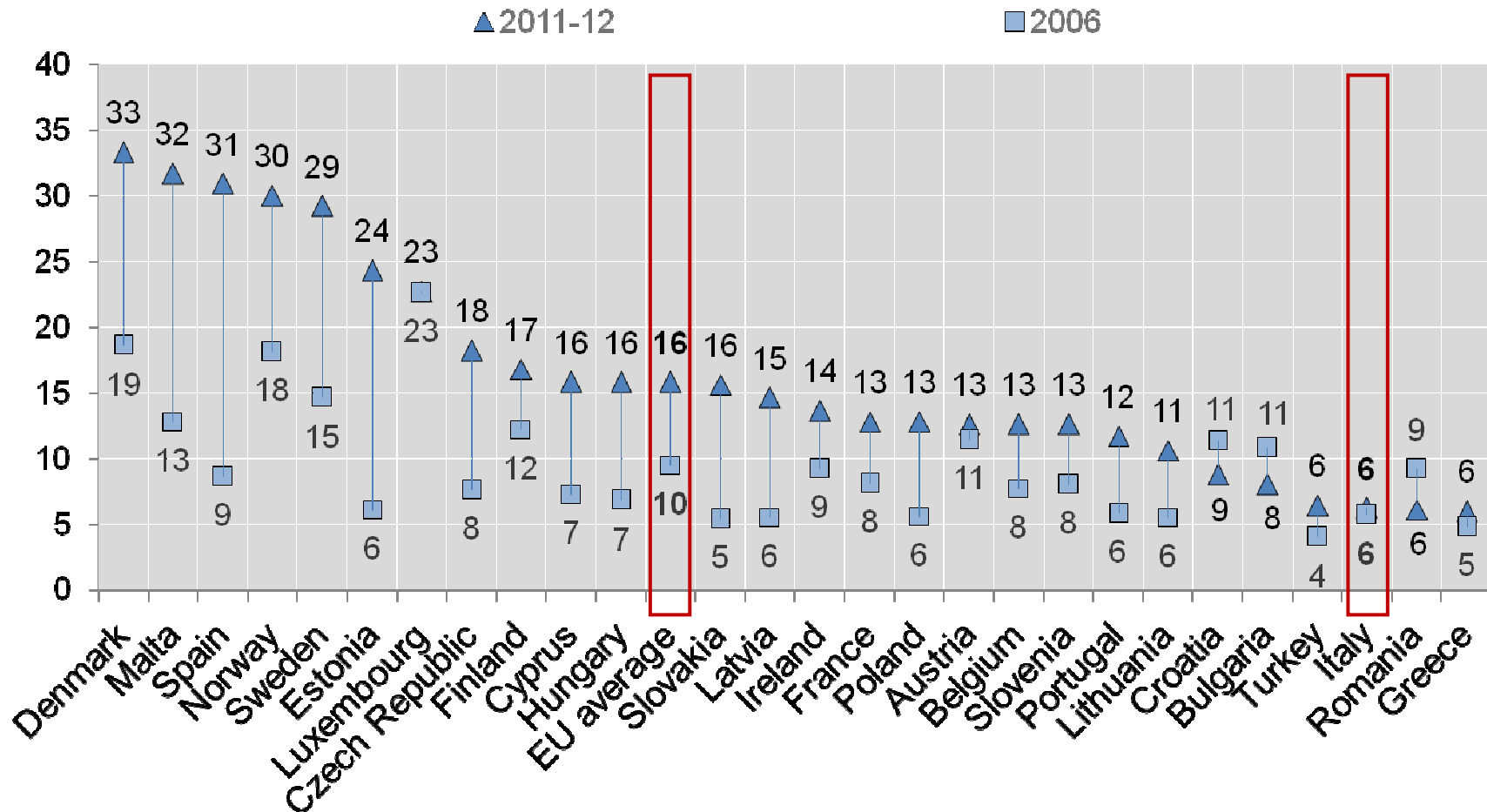


italian schools have low ICT
penetration



Italy lags behind most OECD countries for school ICT equipment (and usage)

number of computers per 100 students (4th grade)



Source: European Schoolnet (2013), Survey of Schools: ICT in Education.

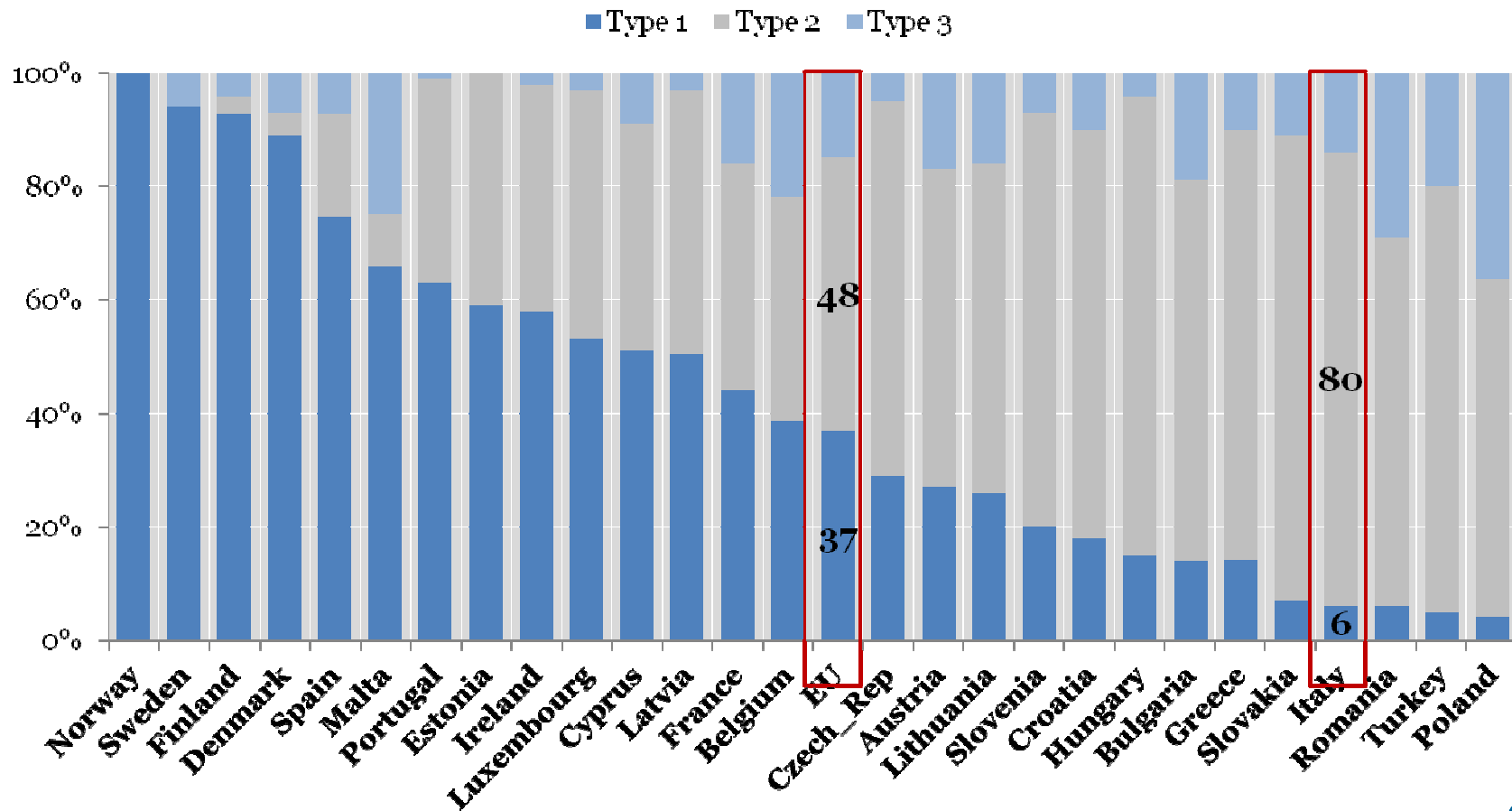




Percentage of students by school intensity of digital equipment (Grade 4), 2012

Type 1: high equipment, fast broadband, high connectedness;

Type 2: medium equipment, slow or no broadband, some connectedness



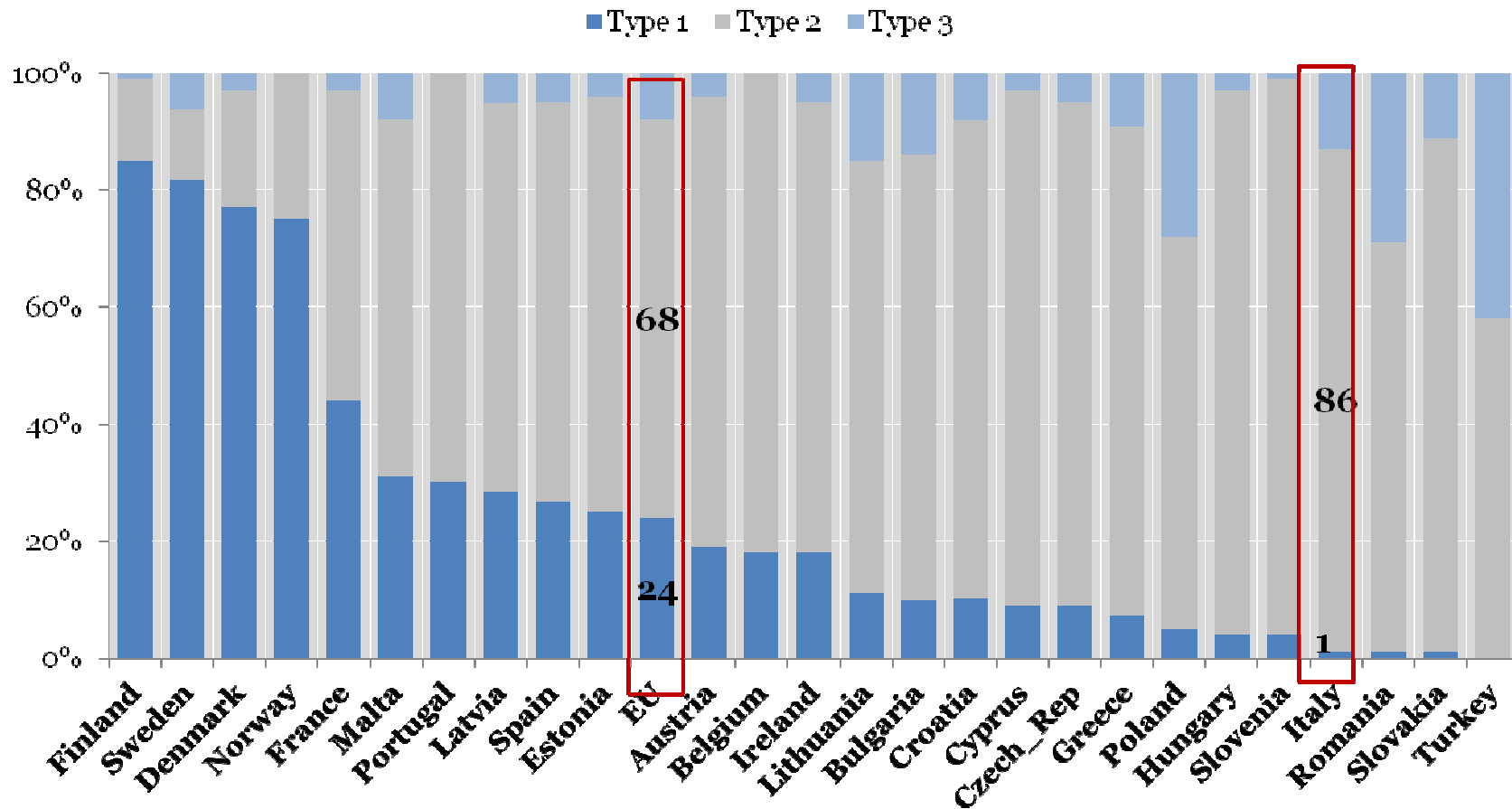
Source: European Schoolnet (2013), Survey of Schools: ICT in Education.



Percentage of students by school intensity of digital equipment (Grade 8)

Type 1: high equipment, fast broadband, high connectedness;

Type 2: medium equipment, slow or no broadband, some connectedness



Source: European Schoolnet (2013), Survey of Schools: ICT in Education.



Italy's national plan for digital schools: strengths and limitations



Piano Nazionale Scuola Digitale (2008-12)

3 objectives:

- Introduce ICT as part of the daily tools of classroom activities
- Experiment new models of school organisation and of teaching
- Support the development of new products (resource and devices)

4 programmes:

- Piano LIM, cl@sse 2.0, scuol@ 2.0, Editoria digitale scolastica

Related initiatives

- Development of national and school information systems
- Phasing out of paper-only textbooks (e-textbook law)
- Smart cities





Strengths

- Means are aligned with the goal of increasing the use of ICT in schools (LIM as main focus)
- The “contagion” strategy creates teacher demand rather than resistance (voluntary process)
- An efficient procurement procedure (Consip)
- The strategy builds capacity for wider change (phased approach, experiments)





Limitations

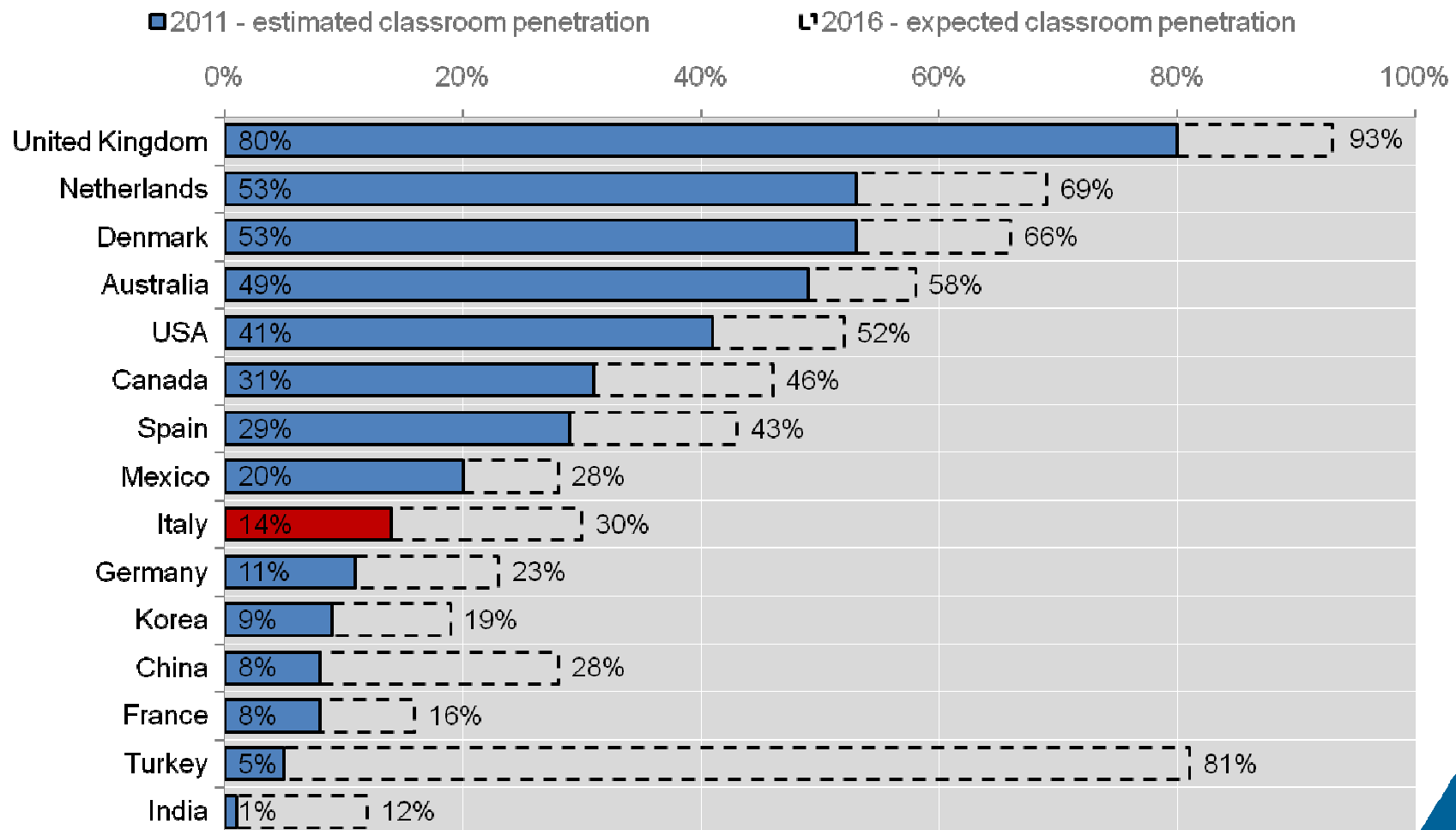
- Budget: EUR 30 million per year
 - 5 euros per student
 - 0.1% of the MIUR budget for schooling
- Too slow pace of equipment (5 to 16% of classrooms equipped with IWB)
- Too few schools concerned by cl@sse 2.0 (416) and scuol@ 2.0 (14+15)
- Not enough professional development
- Not enough digital resources





The slow pace of the *Piano LIM*: it would take 15 years to reach the current UK level

Classroom Penetration of Interactive Whiteboards



Source: Futuresource consulting (2012)





our recommendations



Three main objectives

1. Speed up the uptake of ICT in Italian schools and classrooms
 1. Refocus the innovation projects on scuol@ 2.0 to create an Innovation Laboratory Network of test bed schools
 2. Align other system elements (curriculum and assessment, etc.)
- Create the conditions for peer learning, system learning, and pedagogic transformation





speed up the uptake of ICT



Recommendations to speed up the uptake of ICT in Italian classrooms

- Increase the budget of the *Piano LIM*
 - More public and private funds
 - Allocate funds through matched funding schemes
 - Open the plan to other, sometimes cheaper technologies (e.g. PC, visualiser and projector)
- Develop digital learning resources
 - Continue to mobilise entrepreneurs and publishers
 - Mobilise open educational resources (OER)
 - Translate existing quality OER in Italian
 - Develop a central bank of OER (and more) for teachers
 - Encourage teachers to develop and share digital teaching resources (awards)





Recommendations to speed up the uptake of ICT in Italian classrooms

- Invest in the professional development of teachers and school principals
 - Give schools the possibility to choose between the current mandatory formal training and a flexible school-wide entitlement for training (staff release time, school mentoring, whole-school training, etc.)
 - Develop the capacity of INDIRE blended model
- Set operational targets, milestones for programme completion, and metrics for success.





Innovation Laboratory Network of test bed schools



Why an Innovation Lab Network is needed

- Equipment by itself does not change pedagogic practices or school practices
- Need to pilot and experiment different uses of technology for pedagogic purpose
- Need to experiment new organisational practices for the better use of ICT
- Need to identify what works and what does not work





Recommendations to foster innovation in school organisation and teaching

- Discontinue the cl@sse 2.0 initiative
 - Too small, not enough professional learning, too expensive for contagion
- Concentrate resources on the scuol@ 2.0 initiative
 - Test-bed schools to research, develop, and pilot solutions for all remaining schools
 - Include professional development provisions
 - Pay more attention to organisational practices
 - Strengthen the competitive design of the programme
 - Mainstream matched funding and partnerships
- Redesign the plan around local school networks (distretti scol@stici 2.0)?





Recommendations to foster innovation in school organisation and teaching

- Create the conditions for system learning
 - Encourage action research and partnerships with researchers within the network
 - Have a rich information system open to researchers and allowing comparisons with other schools
 - Convene meetings of test bed schools
- Support research on teaching and learning with ICT
 - Fund research grants, doctoral scholarships and post-doctoral positions





design supportive policy
environment



Design a supportive policy environment

- Build an ICT infrastructure and vision
 - Prioritise the provision of adequate bandwidth in all schools as part of cross-government policy
 - Plan the integration of ICT in the classroom with longitudinal information systems and learning management systems
- Address parental concerns about the safety of the school internet environment and support local initiatives for parental ICT training programmes





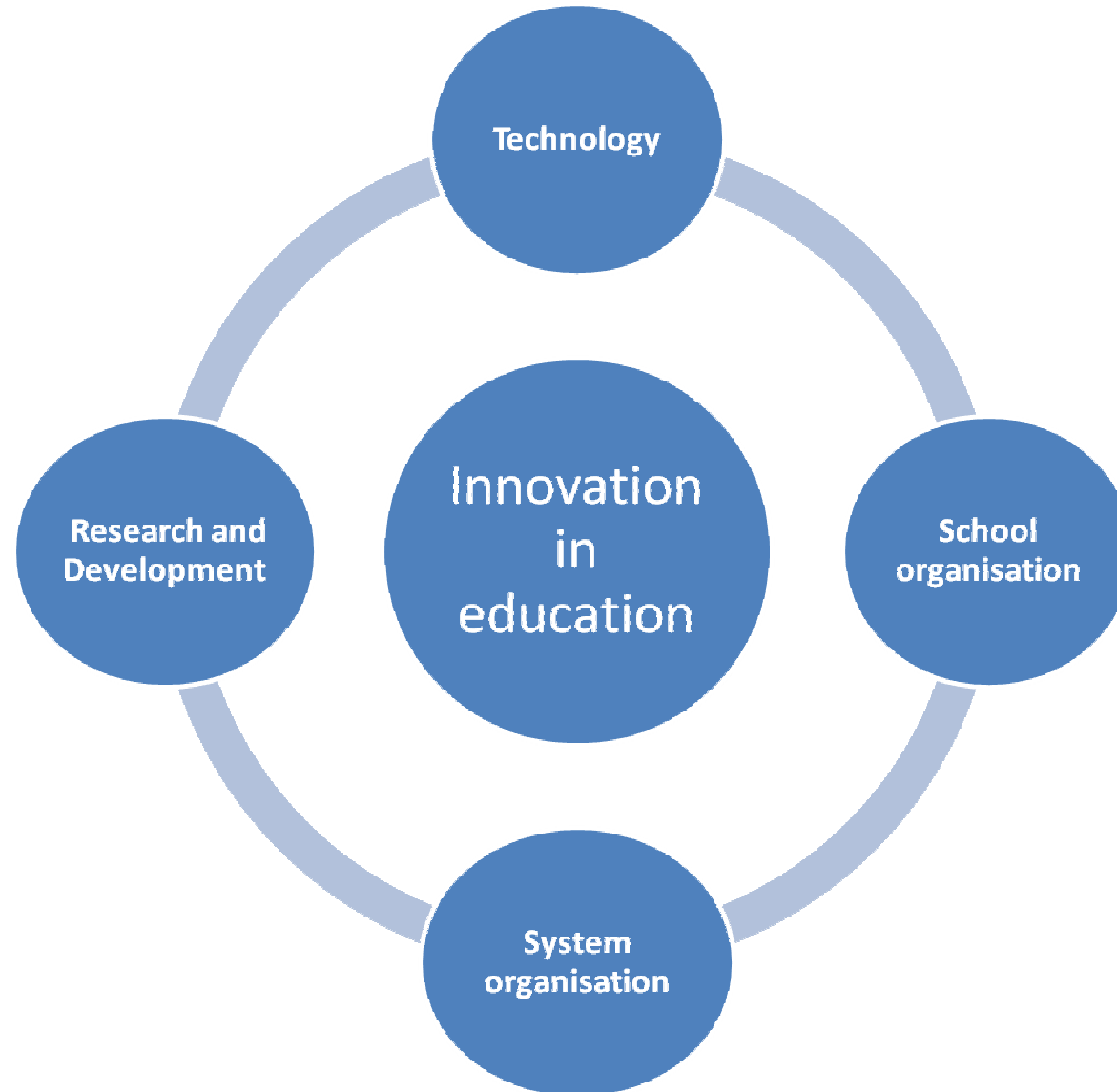
Design a supportive policy environment

- Curriculum and assessment
 - Develop support tools for ICT integration in subject curriculum
 - Monitor ICT skills as well as other desired skills
 - Develop teacher-friendly assessment tools
- Stimulate innovation and knowledge sharing
 - Give awards and organise innovation fairs
 - Support innovative school projects
 - Develop challenge prizes
 - Incentivise businesses and other stakeholders to develop innovative solutions





Towards the design of an innovation-friendly ecosystem in education?





Stephan.Vincent-Lancrin@oecd.org

Francesco.Avvisati@oecd.org

GRAZIE

www.oecd.org/edu/innovation

