



# OECD REVIEW OF THE ITALIAN STRATEGY FOR DIGITAL SCHOOLS

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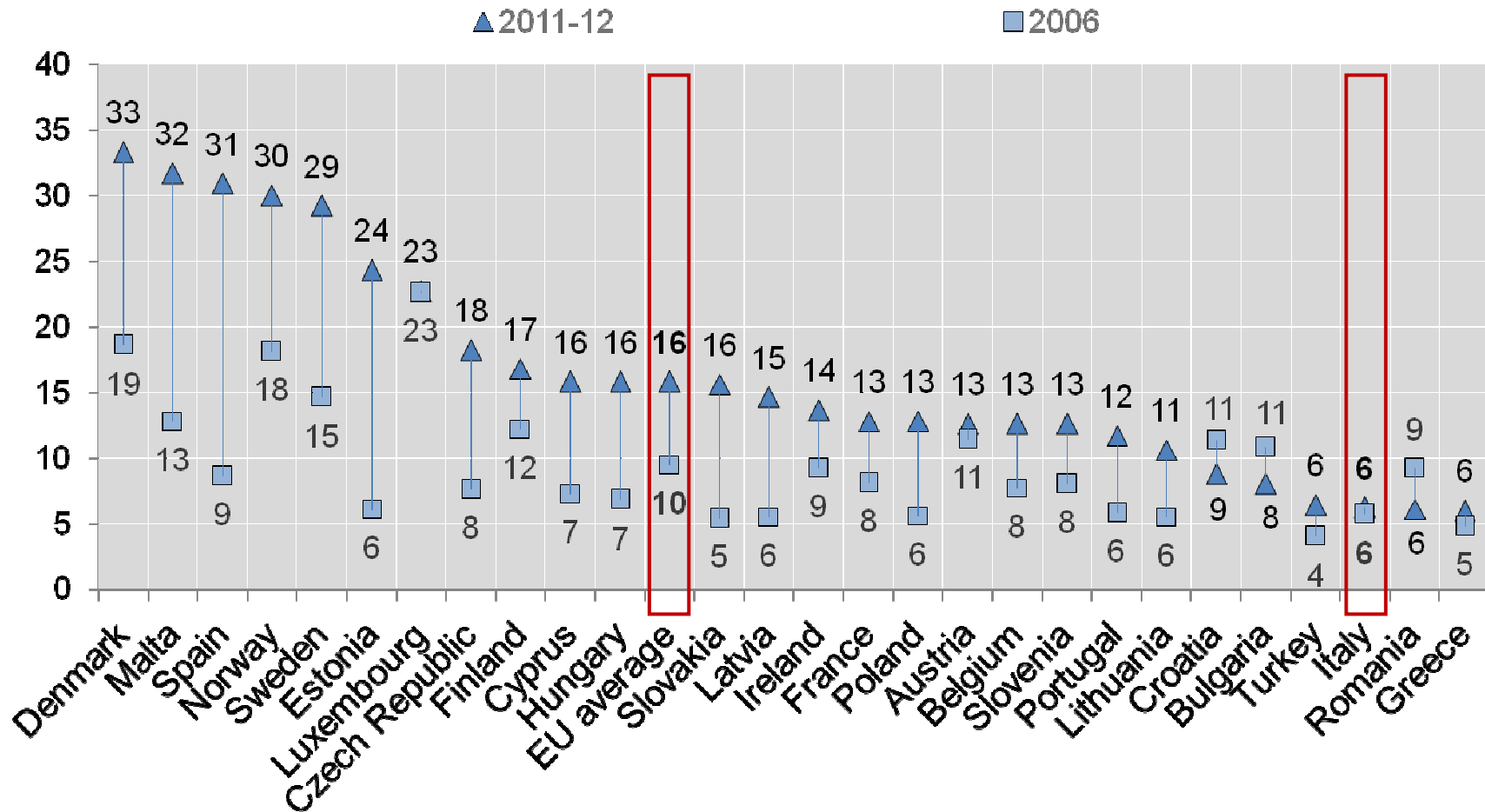


italian schools have low ICT  
penetration



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

number of computers per 100 students (4th grade)



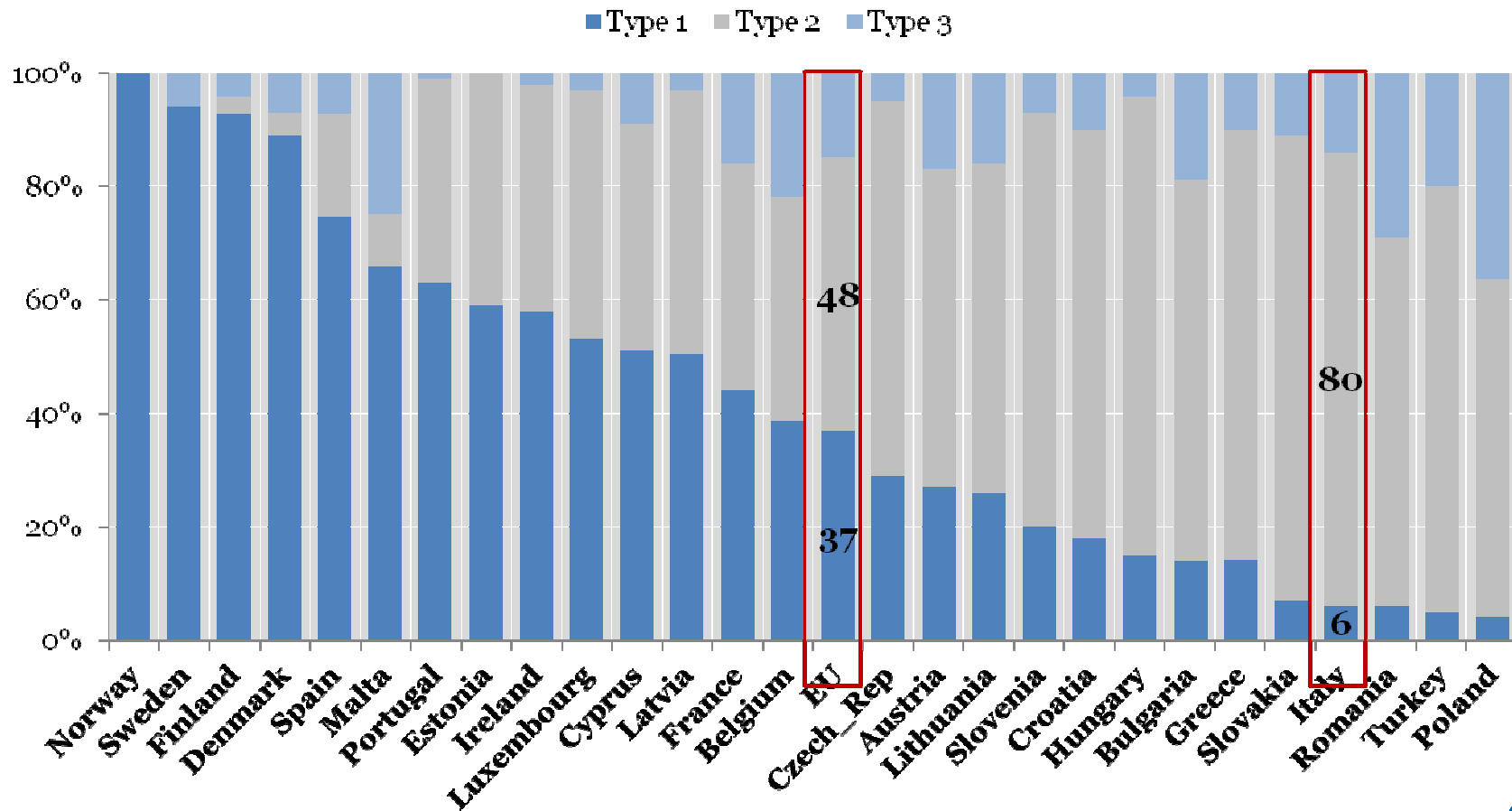
Source: European Schoolnet (2013), Survey of Schools: ICT in Education.



# 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



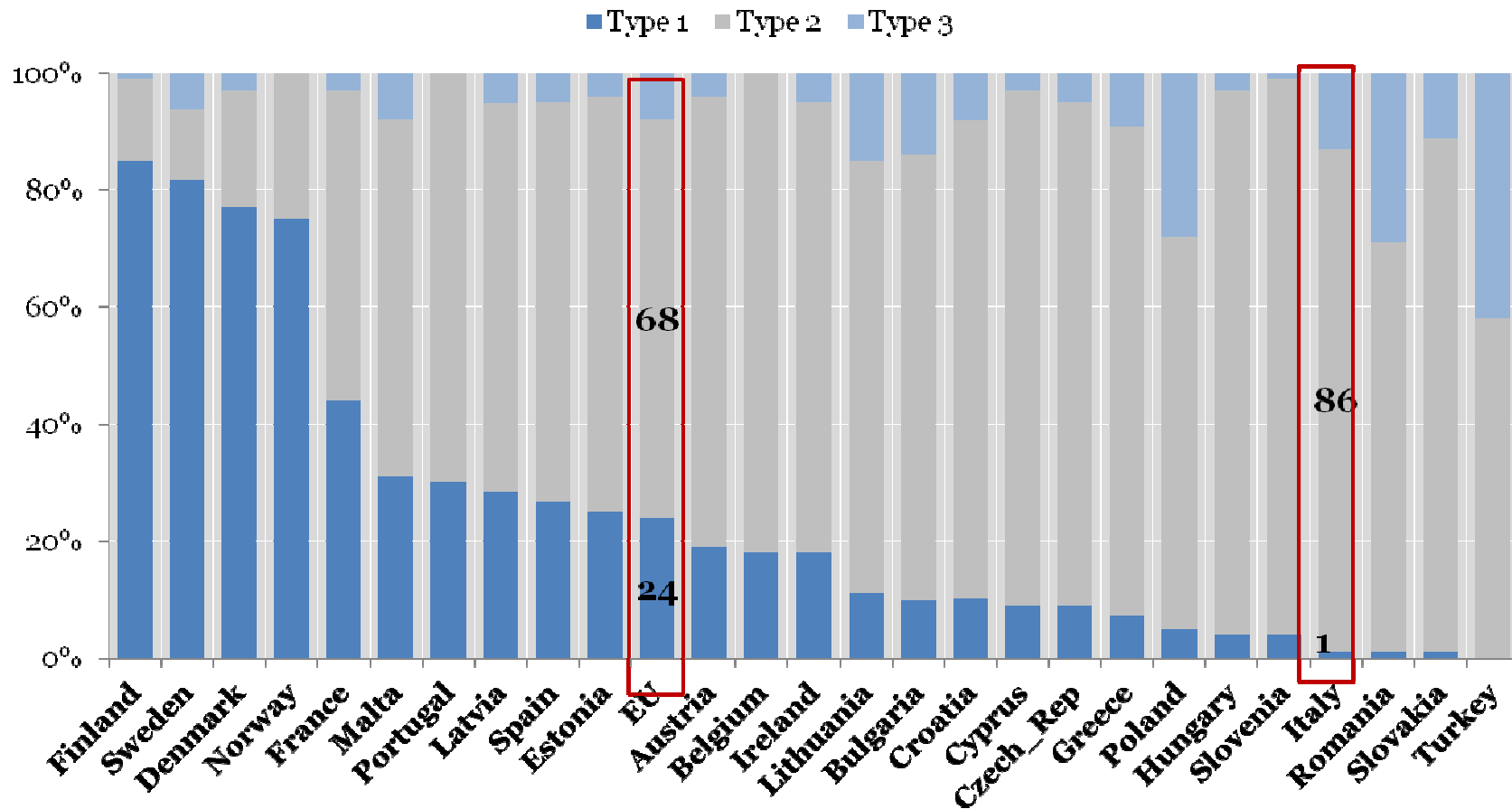
Source: European Schoolnet (2013), Survey of Schools: ICT in Education.



## 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)

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## **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

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- 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

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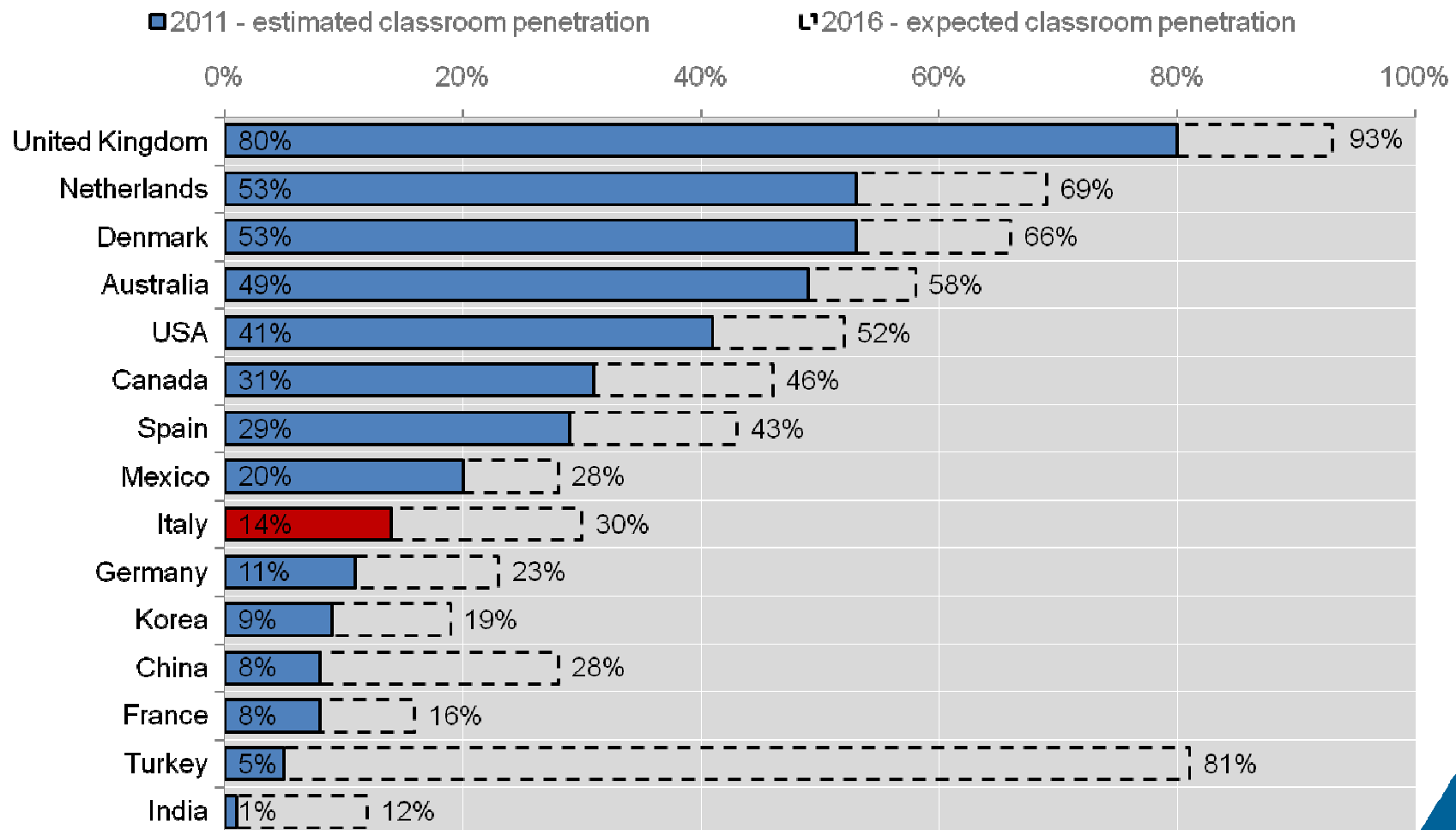
- Budget: EUR 30 million per year
  - 5 euros per student
  - 0.1% of the MIUR budget for schooling
- Too slow pace of equipment (5 to 16% of classrooms equipped with IWB)
- Too few schools concerned by cl@sse 2.0 (416) and scuol@ 2.0 (14+15)
- Not enough professional development
- Not enough digital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

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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

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- 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

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- 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

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- 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

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- 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

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- 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

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- 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

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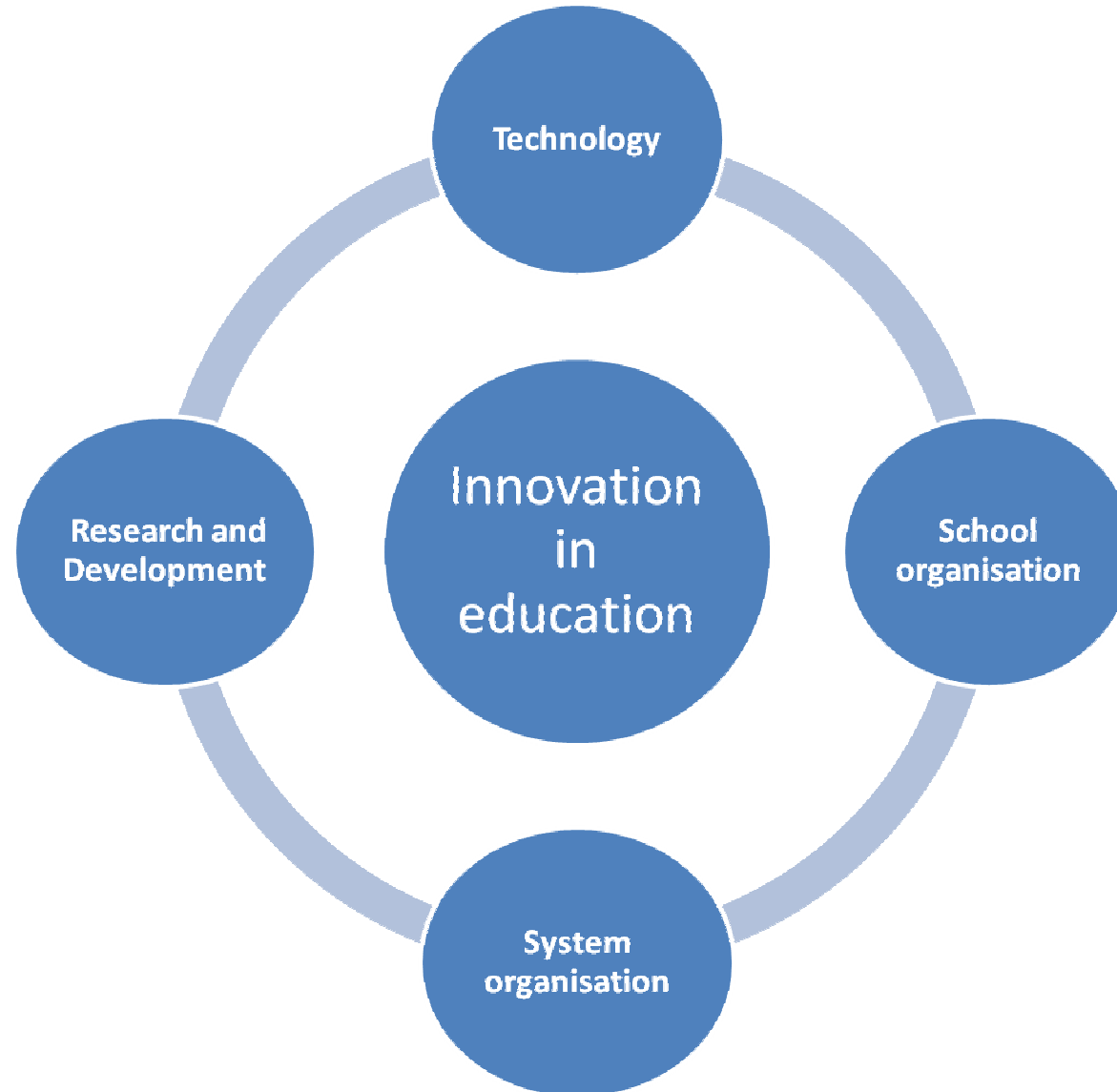
- Curriculum and assessment
  - Develop support tools for ICT integration in subject curriculum
  - Monitor ICT skills as well as other desired skills
  - Develop teacher-friendly assessment tools
- Stimulate innovation and knowledge sharing
  - Give awards and organise innovation fairs
  - Support innovative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





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

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**GRAZIE**

[www.oecd.org/edu/innovation](http://www.oecd.org/edu/innovation)

