Making Innovation Happen: Motors and Brakes

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OECD Innovation Strategy:
Launch at Ministerial Council Meeting 2010

• Principles to promote innovation, including in education and public sector activities
  – *The OECD Innovation Strategy. Getting a head start on tomorrow*
  – *Measuring Innovation. A new perspective*

• CERI’s project:
  – Skills and Education for Innovation
  – Innovation in Education
Skills and education for innovation

« 21st Century Skills »

Skills → Education and training → Innovation

OECO
Innovation strategy for education and training

- Stimulating science-driven innovation
- Stimulating business-driven innovation
- Stimulating practitioner-driven innovation
- Stimulating user-driven innovation
Different types of innovation in education

• Science-driven and business-driven innovation
  – Tool builders (educational products and services for systems, schools and people)
  – New knowledge generation
  – Application or scaling up of evidence-based practices

• Practitioner-driven and user-driven innovation
  – School builders (new school models)
  – Project developers (new ideas and practices)
  – Inexpensive tool builders (OER, etc.)
Innovation in education

- Technology
- School organisation
- System organisation
- Research and Development
Motors of innovation in education

Innovation in education

Technology

Research and Development

School organisation

System organisation
Motors of innovation in education

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Innovation in education

Technology
Research and Development
School organisation
System organisation
A multi-level innovation ecosystem with different stakeholders, levers (and obstacles)

- Federal
- State
- District

- Individual level
- Organizational level
- Sector/Network level
- Society level
- International level
Brakes to innovation

• Brake #1: supply of innovation
  
  – Insufficient public and private investment in research and development
  
  – Insufficient incentives for entrepreneurial tool development in education (but this might be changing)
  
  – Insufficient room for experimentation and action research by practitioners
Science-driven innovation

Public expenditures in education and health as % of GDP (2008)

OECD average

Education: 5.4
Health: 6.3

Share (%) of public research expenditures on education and health (2008)

OECD average

Education: 1.3
Health: 8.6

Education technologies by year - Main Countries
(MA(3) - Patent Families only)

- Japan
- USA
- EU27
- China
- Korea

Educational Research and Development

Business-driven innovation
• **Brake #2: demand for innovation**

  – Accountability policy leads to risk-aversion

  – Innovation funds / Venture capital are insufficient (?)

  – Schools/teachers lack (budget and) culture for innovation (action research)

  – Parental demand for educational innovation is marginal
Can school buy (or fund) innovations?

Distribution of current expenditure by educational institutions in primary, secondary and post-secondary non-tertiary education (2008)

OECD, Education at a Glance 2011
Parents are happy with pedagogy and content

“I am happy with the content taught and the instructional methods used in my child’s school”

OECD, PISA 2009, Parents questionnaire
Pedagogy and curriculum: socio-economic distribution of “happiness”

“I am happy with the content taught and the instructional methods used in my child’s school”

![Chart showing the distribution of happiness levels across different income groups.](chart.png)
Parents are happy with their children’s school

"My child’s school does a good job in educating students"

OECD, PISA 2009, Parents questionnaire
School education: socio-economic distribution of “happiness”

"My child’s school does a good job in educating students"

- **Strongly Agree**
- **Agree**
- **Strongly disagree**

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<th>Strongly disagree</th>
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OECD
• **Brake #3: knowledge management**

  – Insufficient organisational learning within school and across the education sector (?)

  – Inappropriate format and delivery of professional knowledge for practitioners

  – Difficulty to produce evidence on the impact of specific educational innovations
Brakes to innovation

- Brake #1: supply of innovation
- Brake #2: demand for innovation
- Brake #3: knowledge management
Selected action points to (try) unleash innovation

• Evaluate and measure innovation in education
  – Develop next-generation education information systems
  – Invest in research and evaluation of educational practices
  – Develop with CERI a measurement pilot?

• Foster (international) communities of practice (sectoral and organisational learning)
  – ILE network, other CERI and OECD work
  – Foster teacher professionalism around learning organisations

• Develop explicit innovation strategies for education (and finance and evaluate them)
Innovation in education

- Technology
- School organisation
- System organisation
- Research and Development
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THANK YOU

www.oecd.org/edu/innovation