



Pénzügykutató
Intézet

The ,uncertainty principle' of ICT development

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Eminent Conference, Genova
17.11.2011

False assumption about the spread of best practices

There is a common assumption or conviction about the spread of best practices:

- First step: Elaboration of a best practice
- Second step: Implementation of the best practice
- Third step: Demonstration of the results of the best practice (conferences, marketing, etc)
- Fourth step: Automatic spread of the best practice

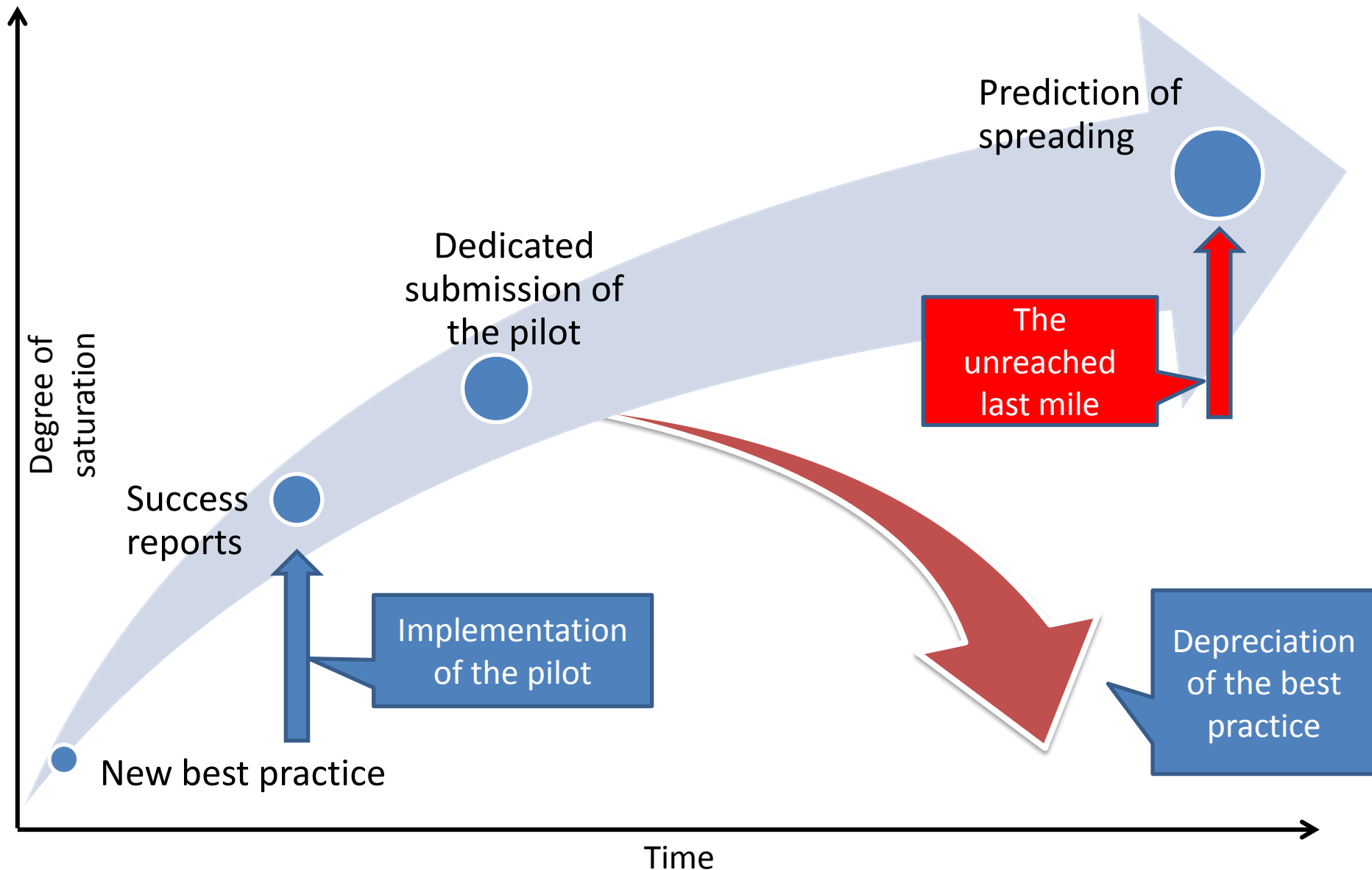


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The real model of the spread of best practices

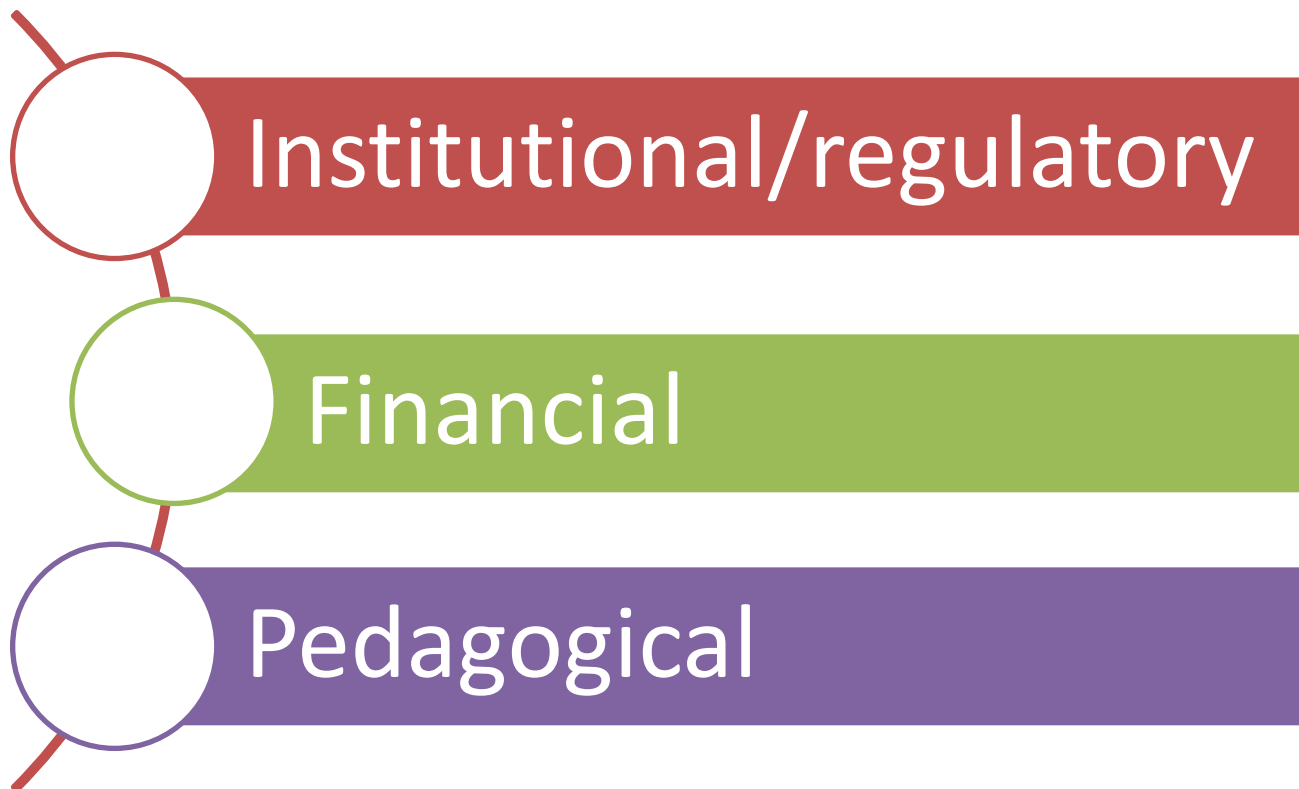


The false assumption and the reality



Conditions of spreading and sustainability

- There are some **national level** conditions for an ICT development project (best practice) which have to be fulfilled to make spreading waves:



Institutional/Regulatory conditions

- Paper based content vs. Digital content
 - Digital content accreditation system
 - Introducing digital measurement-assesment at national level exams (graduation, entrance, etc.)
 - Exit requirement regulation based on ICT solutions and digital content
 - The core teaching material should be digital content based
 - Equal or preferring subsidy/normative financing for digital content and devices (Cost of a tablet is less than the cost of the printed schoolbooks for 4 years)
 - Interoperability: national regulation should require interoperability of digital content from different sources (two schoolbooks even from the same publisher can be not interoperable)
 - Requireing to turn learning management and administration into a digitized way

Financial conditions

- ICT related expenditure should be recognized as a public utility (like running water, electricity, heating)
- Normative financing to cover amortization and upgrade (appr. 5-10% of whole educational budget) from public budget
- Normative financing of teacher further training in sake of acquiring ICT skills
- Normative financing of system administrators

Different financial cycles of amortization in education

Buildings 100 years

Furniture 15-20 years

ICT equipment 3-6 years

Insufficient, but supported by public

Neglected and not recognized by the public

Pedagogical conditions

- Teacher training and further training (technology shift is faster than generation shift)
 - Trainings related to ICT equipment implementation
 - Trainings related to ICT based methodology
 - Trainings related to ICT based assessment
 - Continuous further training
- Different levels of ICT use in schools
 - No ICT use
 - Teaching informatics as a separated subject
 - Integrated use of ICT with other subjects and everyday life



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Thank You for your attention!