

# An International Study of “Innovative Learning Environments”

October 2011

Centre for Educational Research  
and Innovation (CERI)

OECD

# WHY SUCH FOCUS ON LEARNING AND ON INNOVATION?

# Why such interest in learning?

- Our societies and economies have transformed **with knowledge central**. Therefore, learning is also central.
- **Strong focus and advance in measuring learning outcomes**, including through PISA. But then how to change outcomes? In what kinds of learning environments?
- Education has been reformed endlessly - **the sense of reaching the limits of educational reform invites a fresh focus on learning** itself
- **Technology development** has re-set the boundaries of educational possibilities but how far reshaping learning environments?
- **The research base on learning grows** but so far a “great disconnect” to policy and practice.

## Hence also the focus on innovation

- If traditional schooling not delivering 21<sup>st</sup> century agendas what new – innovative - learning models promise more success?
- Meeting the research-based criteria of effective learning will call for substantial innovation and change.
- Hence too the need to understand better how such change can be introduced and sustained.
- But - ‘learning’ first and ‘innovation’ second.

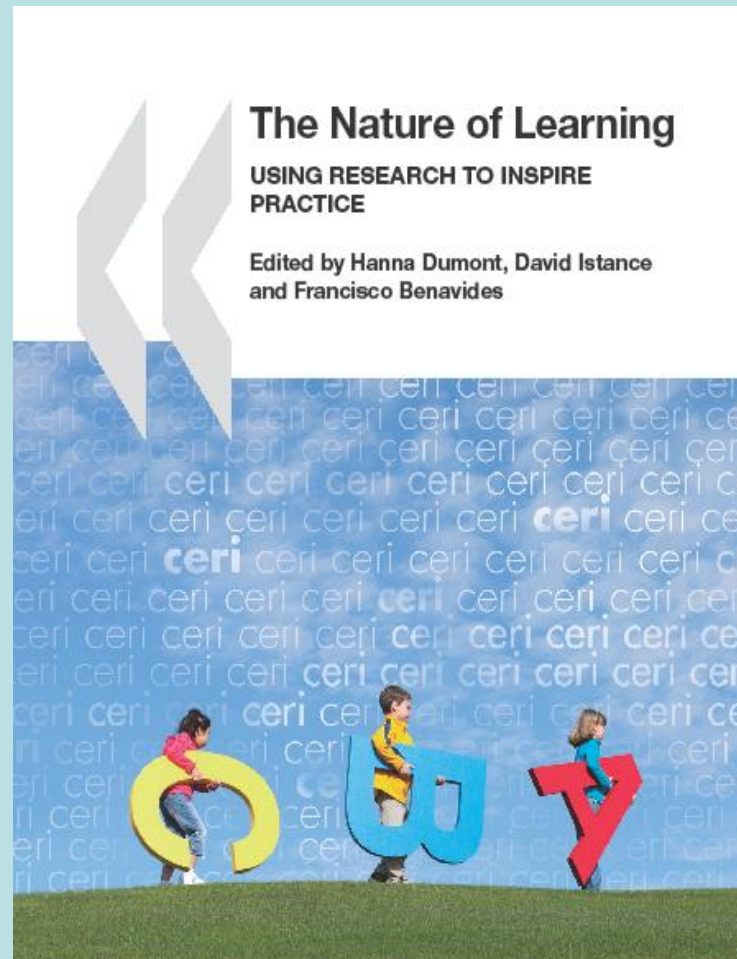
# OECD/CERI project “Innovative Learning Environments”

**ILE aims** to inform practice, leadership and reform through generating analysis of innovative and inspiring configurations of learning for children and young people, by:

1. The Lessons of Research for Redesigning Learning Environments (**“Learning Research” Strand**) – 2008-2010
2. Compiling & Analysing Innovative Configurations of Learning (**“Innovative Cases” Strand**)
  - A set of innovations – the **Universe** (120+ cases so far, aiming at 160+ 2009 to 2011)
  - A sub-set - the **Inventory** (around 35) - given more detailed case study analysis (2010 and 2011)
3. Facing the Challenge of Implementation (**“Implementation and Change” Strand**) – starting 2011

# **ABSORBING THE LESSONS OF LEARNING RESEARCH**

# ***“The Nature of Learning: Using Research to Inspire Practice”*** OECD Publications, Sept. 2010, 338pp.



Centre for Educational Research and Innovation



# Chapters and Authors

## **1. Analysing & Designing Learning Environments for the 21<sup>st</sup> Century**

OECD (Hanna Dumont & David Istance)

## **2. Historical Developments in the Understanding of Learning**

Erik De Corte

## **3. The Cognitive Perspective on Learning**

Elsbeth Stern & Michael Schneider

## **4. The Crucial Role of Emotions & Motivation in Learning**

Monique Boekaerts

## **5. Developmental & Biological Bases of Learning**

Cristina Hinton & Kurt Fischer

## **6. Formative Assessment**

Dylan Wiliam

## **7. Technology and Learning**

Richard Mayer

## **8. Cooperative Learning & Group-work**

Robert Slavin

## **9. Inquiry-based Learning**

Brigid Barron & Linda Darling-Hammond,

## **10. The Community and Academic Service Learning**

Andrew Furco

## **11. The Effects of Family on Learning**

Barbara Schneider, Keesler & Morlock

## **12. Implementing Innovation: from visions to everyday practice**

Lauren Resnick, James Spillane, Goldman & Rangel

## **13. Future Directions**

OECD (Istance & Dumont)

# ‘Nature of Learning’ transversal conclusions

To promote learning, environments should:

- Make learning central, encourage engagement, and be where learners come to understand themselves as learners
- Ensure that learning is social and often collaborative
- Be highly attuned to learners’ motivations and the importance of emotions
- Be acutely sensitive to individual differences including in prior knowledge
- Be demanding for each learner but without excessive overload
- Use assessments consistent with its aims, with strong emphasis on formative feedback
- Promote horizontal connectedness across activities and subjects, in-and out-of-school

## Expressed in educational terms...

These 'principles' mean that learning environments should be:

- **Learner-centred:** highly focused on learning but not as an alternative to the key role for teachers
- **Structured and well-designed:** needs careful design and high professionalism alongside inquiry & autonomous learning
- **Profoundly personalised:** acutely sensitive to individual and group differences and offering tailored feedback
- **Inclusive:** such sensitivity to individual and group differences means they are fundamentally inclusive
- **Social:** learning is effective in group settings, when learners collaborate, and when there is a connection to community.

# CONCEPTUAL AND EMPIRICAL WORK ON 'INNOVATIVE LEARNING ENVIRONMENTS'

## “Innovative Cases” Strand

The ILE project is building:

- A **Universe** of ILEs from as many countries and sources as possible (120+ cases so far, aiming at 160+) – 2009 to 2011
- An **Inventory** (around 35-40) from those submitted by participating systems – given more detailed analysis (2010 and 2011)

Leading to

- An on-line **knowledge base** based on these plus the other ILE analyses (2011 and 2012)
-  A full **OECD publication** (2012)

# Substantial international interest and participation

Many countries/regions/organisations have “joined” - taking an active role in the ‘Innovation’ and ‘Implementation’ strands and anchoring them in real-world systems

**Austria  
Chile  
Finland  
Hungary  
Israel  
Korea  
Mexico  
Norway  
Portugal  
Sweden  
Slovenia  
Spain  
Denmark?**

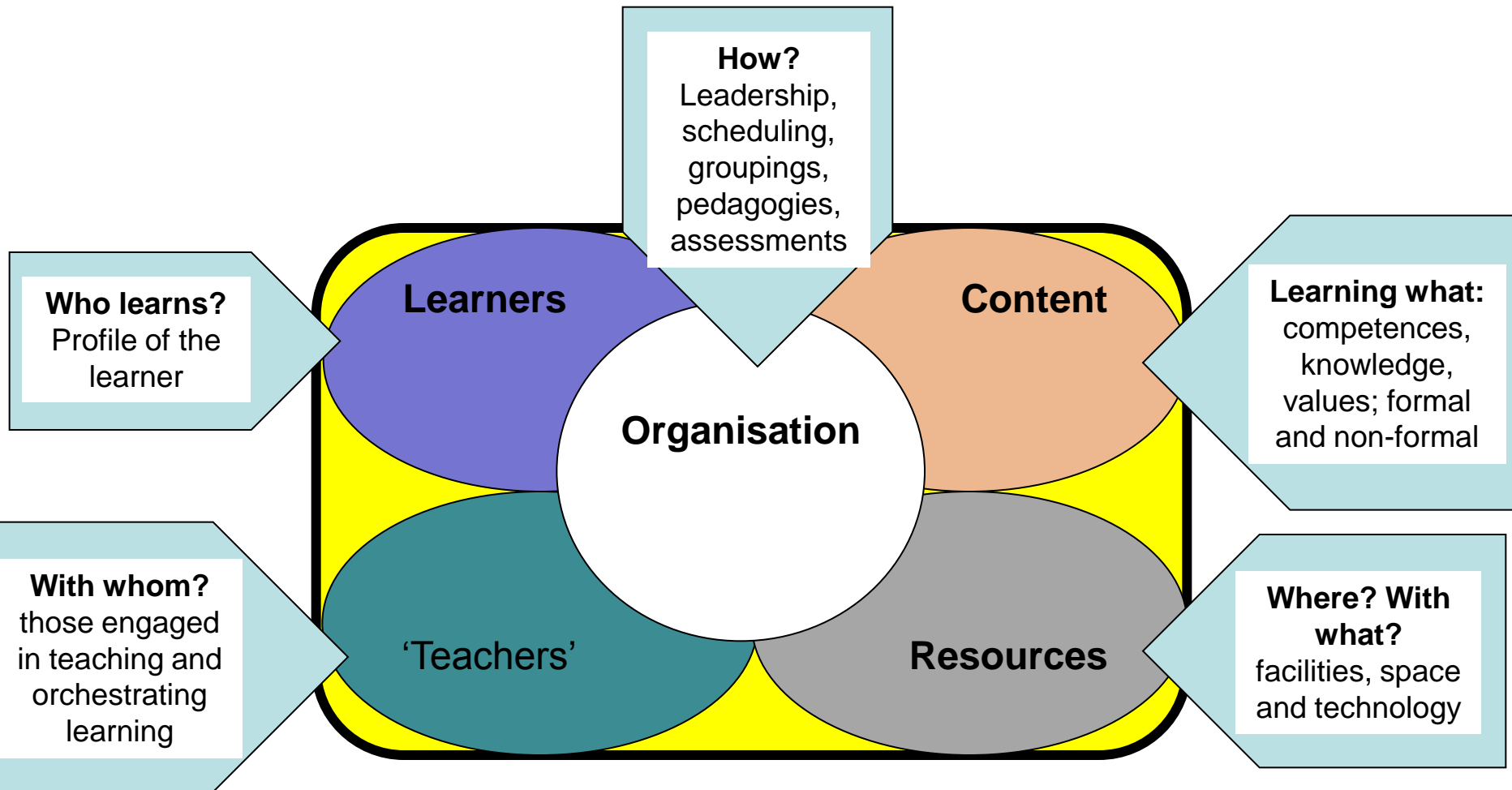
**Victoria, South Australia,  
(Australia)  
Alberta, British Columbia  
(Canada) Thüringen  
(Germany) Nuevo Leon  
(Mexico) Berne & Ticino  
(Switzerland),  
Ohio (US)  
Hong Kong, China  
Belgium (French  
community)?  
Australian Capital  
Territory (Australia)?**

**ENSI (Environment and  
School Initiatives)  
Cognition Institute (New  
Zealand)  
Stupski and Nellie Mae  
Educational Foundations  
(US)  
Innovation Unit (England)  
Jaume Bofill Foundation  
(Catalonia, Spain)  
Fondazione per la Scuola  
della Compagnia di San  
Paolo (Italy)  
IMTEC? (Norway)**

## ILEs in the OECD Compilation are:

- ***Reconfigured learning arrangements*** at the micro level – formal or non-formal or mixes; real cases not general initiatives
- Departures from most general or vocational education – they are ***innovative***
- Serving the learning needs of ***children and/or adolescents***
- ***‘Full-time, over time’ mix of learning opportunities and activities***, replicated across different groups in same circumstances - not partial learning episodes or very part-time arrangements.
- Defined by the dynamic ***interaction between learners, ‘teachers’, content, resources, organisation*** (next slide)

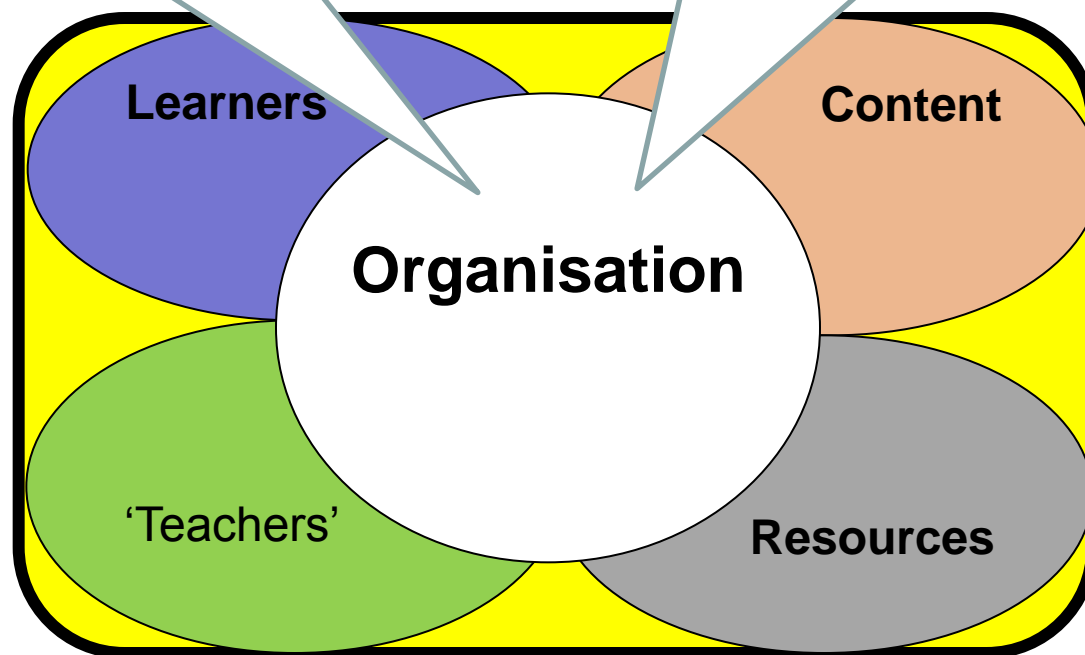
# CERI/ILE understanding of the 'micro' environment level



# Organisation as the 'black box' within the 'black box' – the engine room

Relationships between learners, 'teachers', content and resources through...

...structured learning activities & pedagogies, learning leadership, and the use of information on learning over time



# Using the LE framework to understand innovations

Innovative approaches to scheduling, groupings, pedagogies, assessment, guidance

**Learners**

Innovations in the profile of the learners

**Content**

Offering new foci for content, competences and knowledge

**Organisation**

Innovations regarding those engaged in teaching and orchestrating learning

**'Teachers'**

**Resources**

Innovative uses of infrastructure, space and technology

# Innovations focused on the 'learner'

Innovations in  
the profile of  
the learner

**Learners**

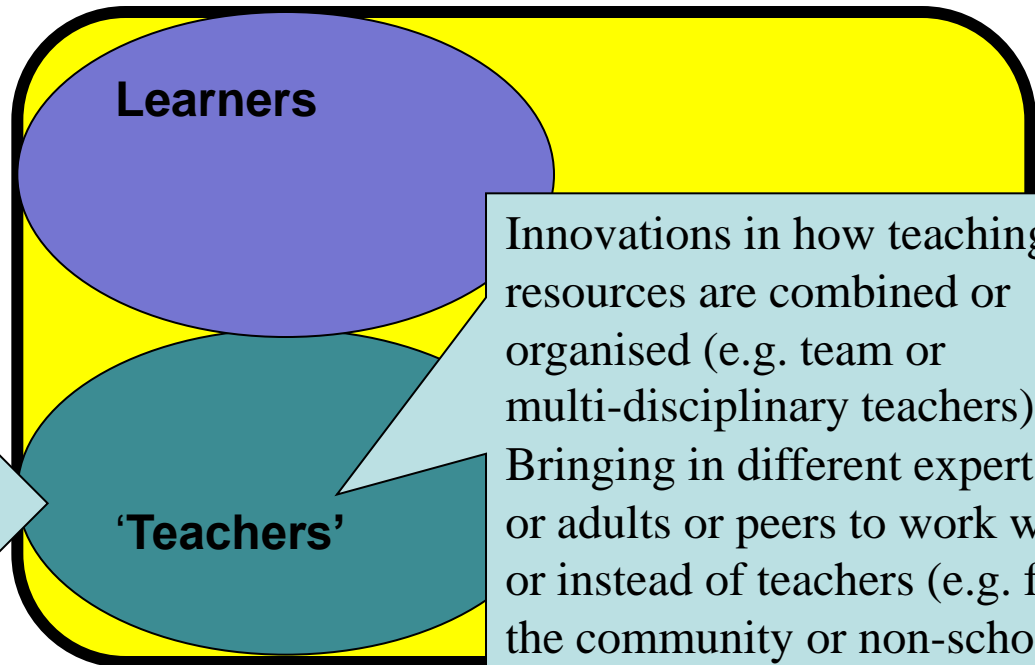
- New groupings or profiles of learners (e.g. novel age mixes)
- Targeted approaches for Specific groups of learners (e.g. populations on the move)

e.g. all-age learners in  
single classroom  
(Lindental, Switzerland)  
or mix of mixed-age and  
homogeneous age  
(JenaPlan, Thuringen)  
Circus children (Moving  
School, Portugal)

# Innovations focused on 'the teacher'

e.g. artisans and artists,  
Fiskars, Finland  
“Itinerant pedagogical  
advisers’, Mexico (Conafe)  
Community expertise,  
Unlimited, New Zealand

Innovations regarding  
those engaged in  
teaching and  
orchestrating learning



Innovations in how teaching resources are combined or organised (e.g. team or multi-disciplinary teachers).  
Bringing in different experts or adults or peers to work with or instead of teachers (e.g. from the community or non-school specialists).

# Innovations in content

Shifting focus of what is the primary objective of the learning (e.g. values, multi-disciplinary approaches, creative expression, 21<sup>st</sup> century competences)

Innovations in who defines legitimate knowledge (e.g. co-constructed “curricula”, learner or other group definitions of content).

**Content**

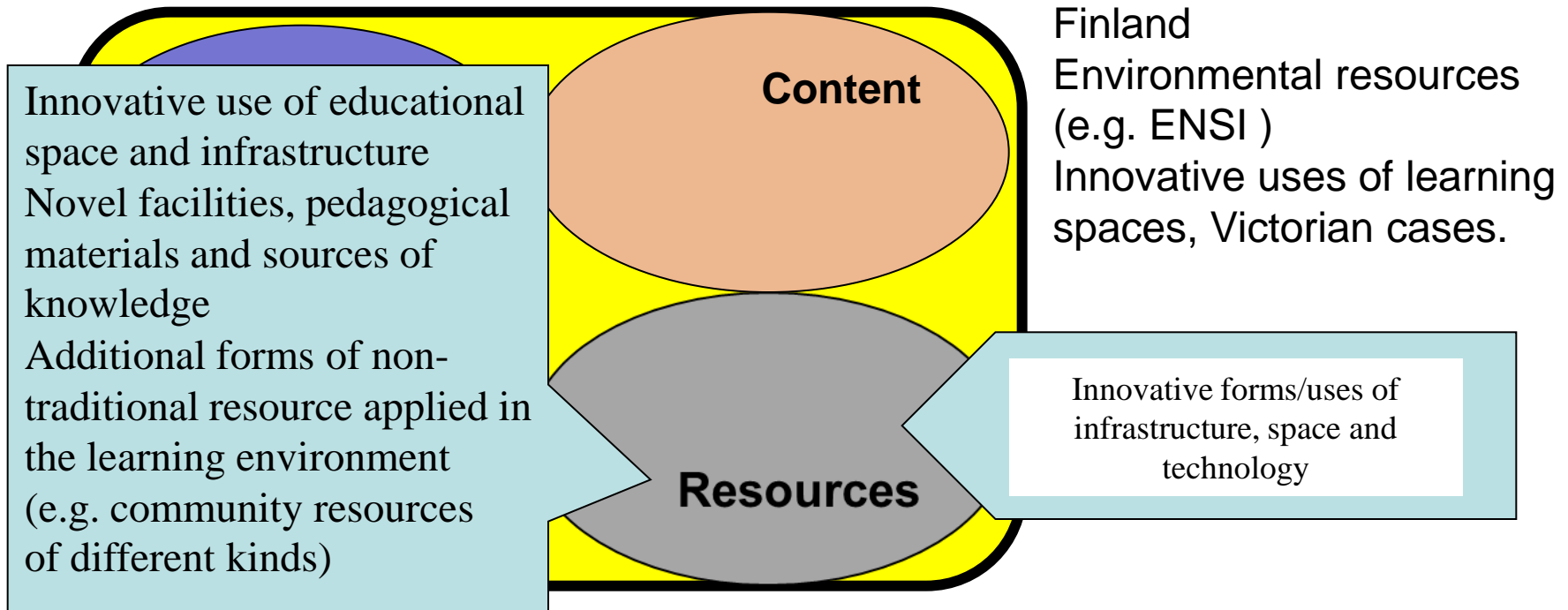
Offering new foci for content, competences and knowledge

e.g. Many ILEs focus on 21<sup>st</sup> competences and/or sustainability curricula

Mix of non-fictional writing and students producing daily radio & TV shows (Courtney Gardens, Victoria)

Pedagogical Platform, Denmark focus on 4 types of knowledge

# Innovations in resources

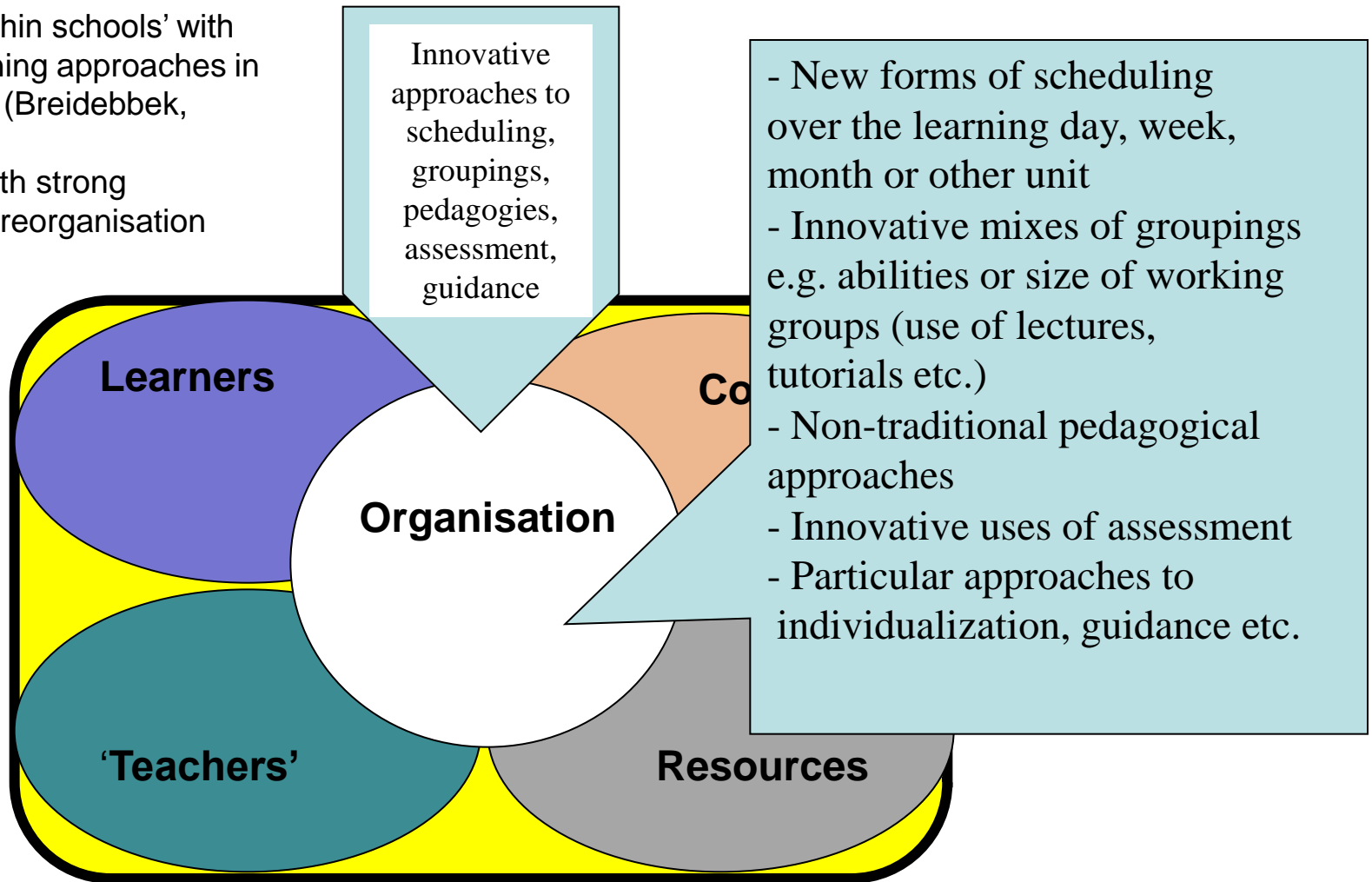


# Organisational innovation

Digital Roadmap, CEDIM,  
Nuevo Leon, Mexico

3 'schools within schools' with  
different learning approaches in  
single school (Breidebbek,  
Norway)

Many ILEs with strong  
personalised reorganisation



# Can we develop a typology of learning innovations?

Is the **number** of innovative components – learners, ‘teachers’, content, resources, and organisation - offering a way to typologise?

(of the current Universe, 1/3 innovate along 4 or 5 dimensions, nearly 4-in-10 along 3 dimensions, and just over 1/4 along 1 or 2 dimensions)

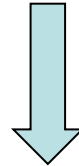
Will the different **combinations** of these descriptors offer another means to typologise?

Or is the search after typology ‘mission impossible’?

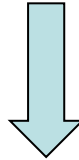
# IMPLEMENTATION AND CHANGE (provisional)

# COMMON (ALBEIT SIMPLIFIED) FRAMEWORK IMPLICIT IN MUCH RESEARCH AND DISCUSSION OF SCHOOLING AND LEARNING

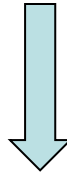
SYSTEM



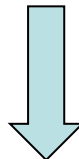
SCHOOL



CLASS



TEACHER



LEARNER

# Why look beyond this framework when our focus is on learning?

- It is expressed in terms of institutional structures and positions, not configurations of learning
- Assumes existing institutions – discourages consideration of innovations as well as of forms of hybrid or non-formal learning
- Unproblematises forms of institution and diversity between them – i.e. assumes we know what connotes a ‘school’ or ‘class’ or ‘teacher’....
- ... as well as unproblematising the relationships of these institutions to the organisation of learning
- Too individualistic – single schools, single classes, single teachers - not the wholes as is relevant for learning and learners
- Too hierarchical and ‘top-down’ (not middle, sideways, and up/down)

# Learning environments embedded in a wider systemic framework

Policy-setting & framing conditions

**Macro level** -System & ed. authorities

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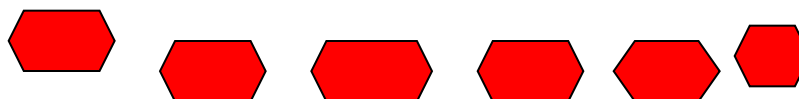
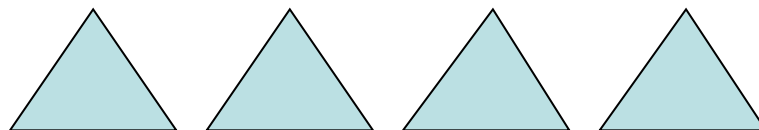
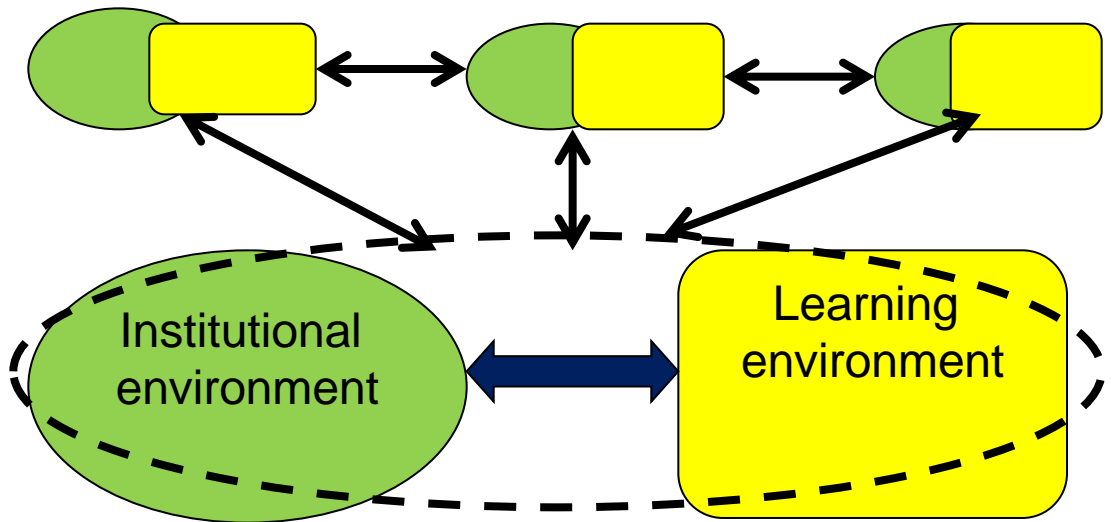
**Meso level** Networks of environments & of practice

.....

**Micro level**  
**Environments – learning & institutional**

.....

**'Atomic' level**  
Classes/learning episodes  
Individual learners



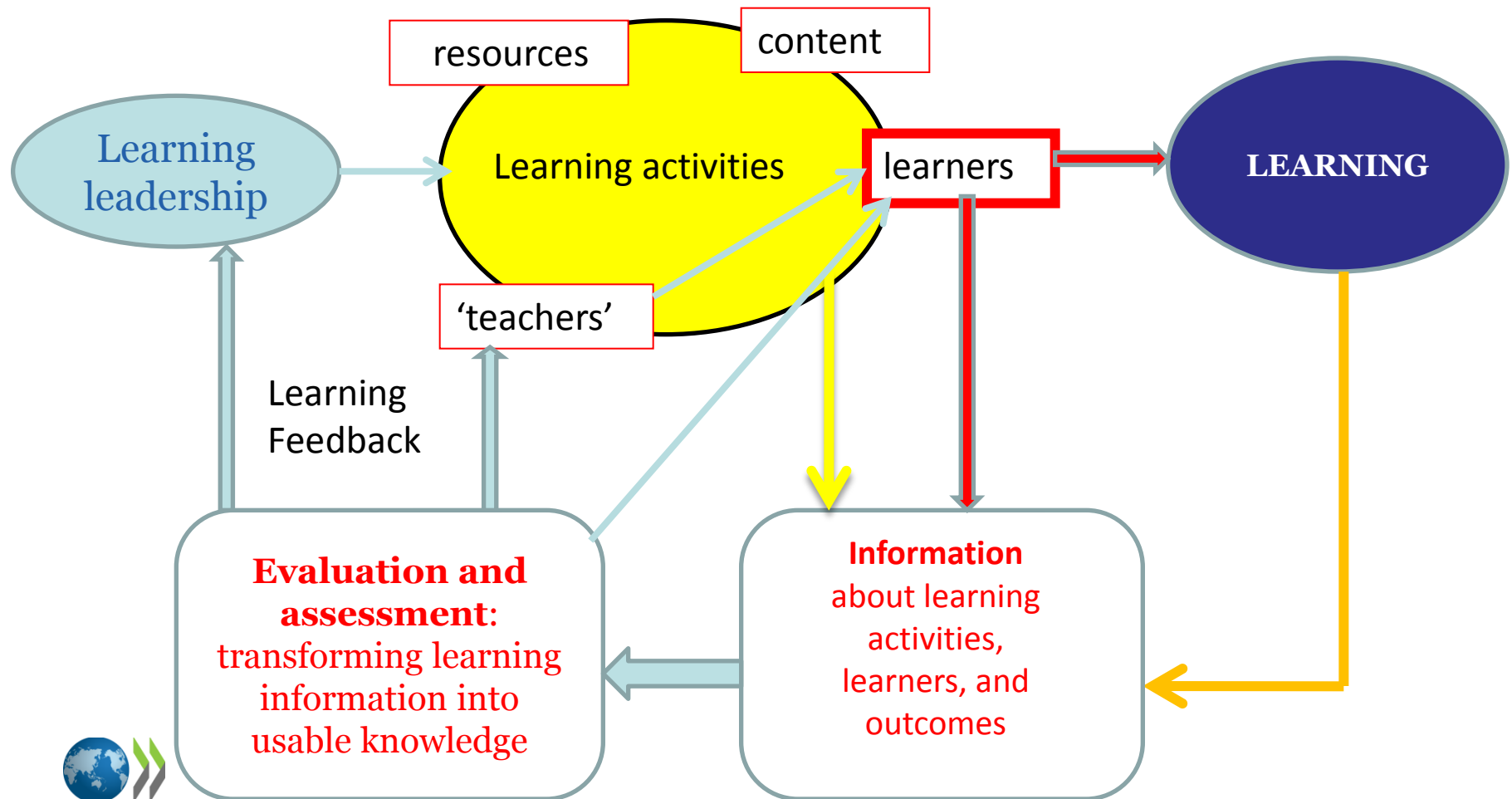
# Implementing change using the learning environments framework

- Applying this framework to identify change strategies along four dimensions:
  1. Implementing more effective learning environments
  2. Creating consistency between the technical core (the learning environment) and the organisational context (institutional environment)
  3. Developing networks and communities of practice across environments ('meso level')
  4. Exploring policy approaches to develop 1 - 3

# Effectiveness at the ‘environment’ level

- Promote the ‘**principles**’ from *The Nature of Learning* through their mix of pedagogical approaches and learning activities
- Involve active ‘**learning leadership**’ – distributed agency shaping visions and goals about learning and the strategic means to achieve them
- Demonstrate high capacity to gather **information on learning**, transform that into actionable formats – **assessments...**
- ...and have well-developed **feedback practices** for getting that assessment information to learners, teachers and the learning leadership

# Organisation in a learning environment – a framework



# Beyond individual learning environments

- Aligning learning environments **with the complexity of educational organisations** and their institutional structures - the ‘grammars’ of schooling and different forms of ‘blended’ and non-formal learning arrangements
- Learning environments connected to others **in diverse networks and professional communities** - developing this ‘meso’ level is critical for “going to scale”
- **Policy building capacity and create conducive climates or incentives** for e.g. learning leadership or learning-focused communities of practice – not micro management

# Analysis in the Implementation Strand

- **Analysis of strategies** to implement innovative learning environments using the above frameworks – by experts and participating systems
- Establishing **small expert networks** as part of this analysis (funding permitting). Possible network themes:
  - learning leadership
  - metrics for summarising learning environments
  - micro-level learning change routines (e.g. ‘kernel routines’)
  - outcomes and evaluation of innovative learning environments
  - networking and communities of practice focused on learning change

# Possible role of the participating systems

- **Discussion/dissemination events**, international and in different participating systems.
- Then (to be agreed) three possible levels of engagement:
  - A short (5-10pp) ***note around two examples*** of reforms – one showing success in changing learning and the other that did not – why?
  - More ***sustained monitoring of an on-going initiative*** aimed at innovating learning - a ‘case study’ in implementing innovative learning.
  - More demanding and ‘transformative’ - the volunteer system would be seeking to use participation in the ILE project to implement a ***“laboratory of innovative learning change”***.

# NEXT STEPS

# Banff Conference 10-12 October 2011

- **Where?** Joint OECD/Alberta conference, site host “Canadian Rockies Public Schools District”, Banff Conference Centre
- **With?** already-participating systems & coordinators, plus different policy players, innovators, social partners, foundations, experts and systems considering joining (invitation only)
- **About?** Covering all three strands of the ILE project
  - Recalling and discussing ‘learning research’ conclusions
  - Exploring the different innovative cases and analysis
  - Discussing and designing ‘implementation and change’

## Still to come...

- Publication analysing cases of innovative learning environments from around the world
- Knowledge base on innovative learning environments, plus user-friendly materials
- Establish small experts networks
- Analyses of implementation of ILEs – from experts and participating systems
- Seminars and events in different ILE jurisdictions and work on ‘laboratories of learning change’
- Main international conferences, 2011 (Banff, October 10-12), early 2013 (Chile), beyond?