



# Open School Education 2030 Starting off

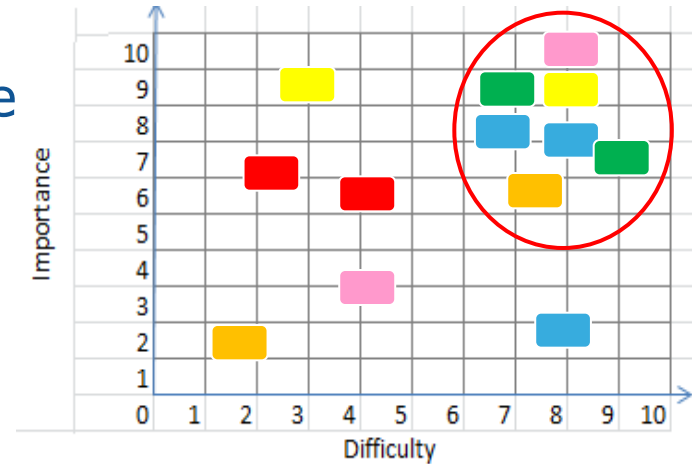
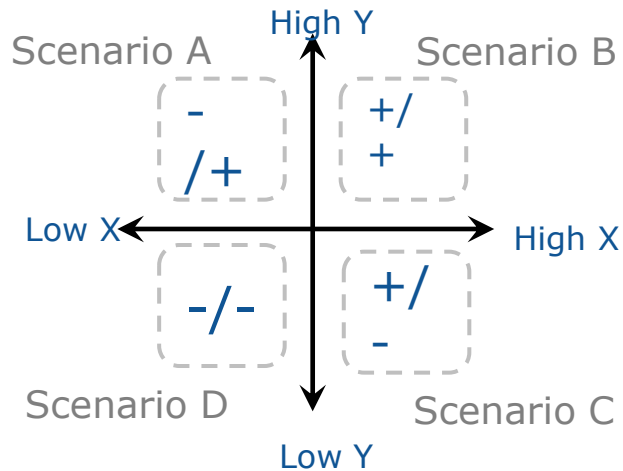
**Open Education 2030:  
Exploiting the Potential of OER for School Education  
- A Foresight Workshop -  
Seville, 28-29 May 2013**

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# Open Education 2030 Foresight Methodology



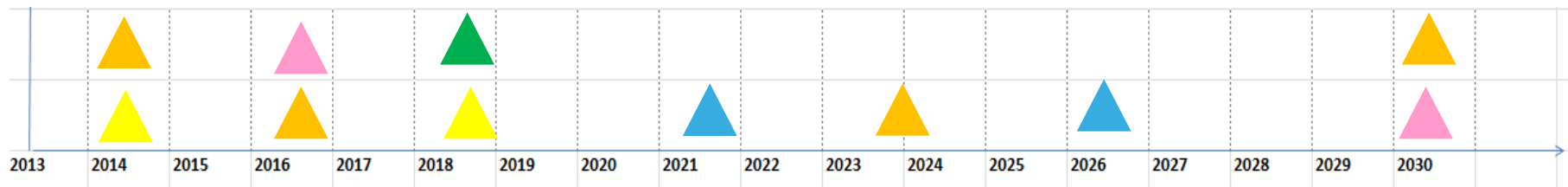
## Step 1: Identifying the critical issue



Step 2: Identifying the (two) key tensions

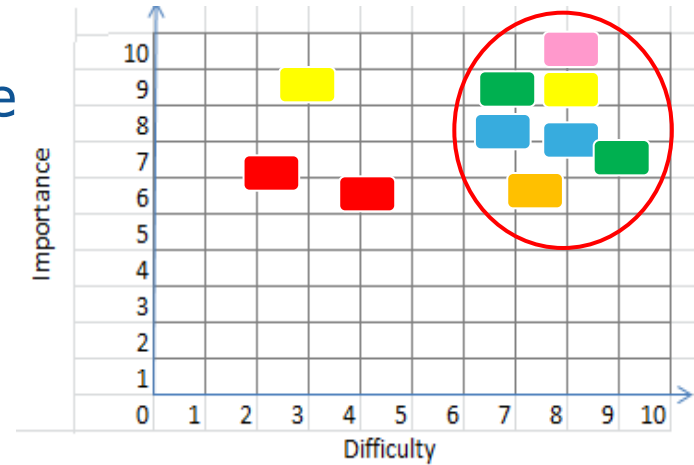
Step 3: Describing the emerging scenarios

## Step 4: Milestones & Roadmap





## Step 1: Identifying the critical issue



# Trends & Drivers

Distilled from 31 Vision Papers on open  
Education 2030 and  
Workshop Participants' input

# EDUCATIONAL RESOURCES

A

## Production

- Sustainable
- Diversity of provision (state, venture capital, nonprofit)
- Public/Private cooperation
- Coexistence of Publishers and OER
- Freemium model publishers
- Public institutions producing OER
- Collaboratively constructed body of OER
- Publishers produce high quality materials but teachers and students can adapt them.
- University students can produce OER as Service-learning
- Full courses developed by multidisciplinary teams (collaboration with stakeholders)
- Implication of business in production=More students taking business oriented courses

## Availability

- Repositories
- Multilanguage (translation)
- European platform for OER
- Schools can use the catalogue or own resources (most teachers prefer it)
- Standardized digital standards and formats (at least at European level)
- Rich and dynamic catalogue of High quality, well designed and educationally resources

## Characteristic

S

- Accessible
- Usable
- Suitable

## Quality

- Validated resources
- OER dynamically improved by data analysis

## Free (Gratis)

- Genuine free provision of teaching materials
- Free of charge
- Public funded resources as a common good

## E-textbooks

- Open source
- Overcome the mimicry of Paper textbook
- Include collaborative services
- Dissolve boundaries between learning materials and learning activities

## Granularity

- Different levels of granularity
- Granularity and abundance of resources overcome the concept of book
- MOOCs

## Technology

### Enablers

- Standards
- Cloud environment
- Augmented Reality
- Open Apps
- Gesture recognition
- Games & Simulations
- Social Networks

## Legal Aspects

- Clear legal (licensing) framework, Creative Commons

### Curriculum flexibility

- Customized and negotiated curriculum
- Mix of common competences and choices
- Flexible core curriculum

### Flexible Learning Paths

- Individualized learning paths
- Programme not timetable
- Organization of activities in blocks
- Educational content adapted to learning ability and adapting to them as they progress
- Not age cohorts
- Not "subjects"
- Interdisciplinary learning areas.
- Higher student choices

### Personalizing through data

- Learning analytics helps to personalize
- Personal data spaces
- Data early signalling students at risk
- Digital audit trail of the activities
- (School) data sets easy to analyse
- Personal data spaces can help to improve employability and demanded skills.
- High Privacy

### Resource flexibility

- OER adaptation for learning needs
- Content mash-up
- Use extra resources for students with special needs
- Teachers and students freedom to choice the resources better adapted to the learning styles.

### New Assessments

- Achieve and demonstrate core set of competences
- European framework of competences
- Test to demonstrate the competences can be take anytime (they are online)
- Creativity, critical thinking
- Recognition of informal learning
  
- Unobtrusive assessment and measurement: not final examinations.
- Not grades (Benchmarks)
  
- Freedom to identify personal goals & challenges (personal portfolio challenges)
- E-portfolio as workspace
- Monitored challenges (Portfolios)
- Analytics will provide formative and summative assessment

## Active learners

- Active participation
- Learning by doing
- Project based learning
- Experiential learning
- Challenge based paradigm
- Self-organization
- Self-regulated learning from early school (personal goals)
- Intrinsically motivated learning processes

## Different teacher roles

- Teacher=guide
- Facilitator
- Tutors or mentors (not teachers)
- Guide to filter and assemble information and knowledge in order to build individual competence profiles.
- Help learners to match motives and competencies
- Teacher autonomy
- Teacher networks (sharing experiences)
- Teacher=Education specialist: socially highly valued
- Teachers working in teams (local and networks with other schools, and external experts...).
- Teachers from different countries
- Multidisciplinary teams in schools

## Collaboration

- Individualized + Social learning
- Teams (not classes)
- Solo + team oriented activities
- Exchange of knowledge for ALL
- Socratic dialogue
- Social Networking
- User generation of content
- Self-organization in small groups
- Freedom to choose to learn in teams or individually or MOOCs...
- Communities of practice

## Enhanced learning

- Flipped classrooms
- Innovative face-to-face classrooms
- Ubiquity
- More free time to practical (on job) experience

## Technology Enablers

- Internet of things
- Automated interactions (arrival school, payment for lunch...)= Internet of me
- Semantic web
- Cloud environment
- Mobile devices
- Open Apps
- Web 2.0

## European level

- Common European Education Policy (European Ministry of Education)
- Single education market in all European Commission
- OE as Europe Knowledge and innovation enterprise

## Institutional level

- School autonomy
- Networked leadership
- Opening up education to new alliances (sharing educational responsibility). Crossborder influence
- Credit accumulation and transfer protocols (Bologna for Schools)

## Education as socially embedded activity

- Fuzzy boundaries between formal-informal education. Seamless learning.
- Community
- Parents implication (and acceptance of OEP)
- Workplace

## Research Improved Education

- Research based approaches (Neuroscience, behavioural psychology..)
- Teachers implied in research
- Up to date pedagogy: ICT & neuroscience
- Research on learning practices using open data of schools
- Learning analytics

## Socialization (at school)

- Face to face human interaction
- Physical togetherness in a hyper-connected world

## Technology Enablers

- School infrastructure + BYOD
- Biometrically enabled device: Not own device, each school device synchronise with the student.
- Invisible technologies
- Automated interactions (arrival school, payment for lunch...)= Internet of me
- Ambient intelligence
- Cloud environment

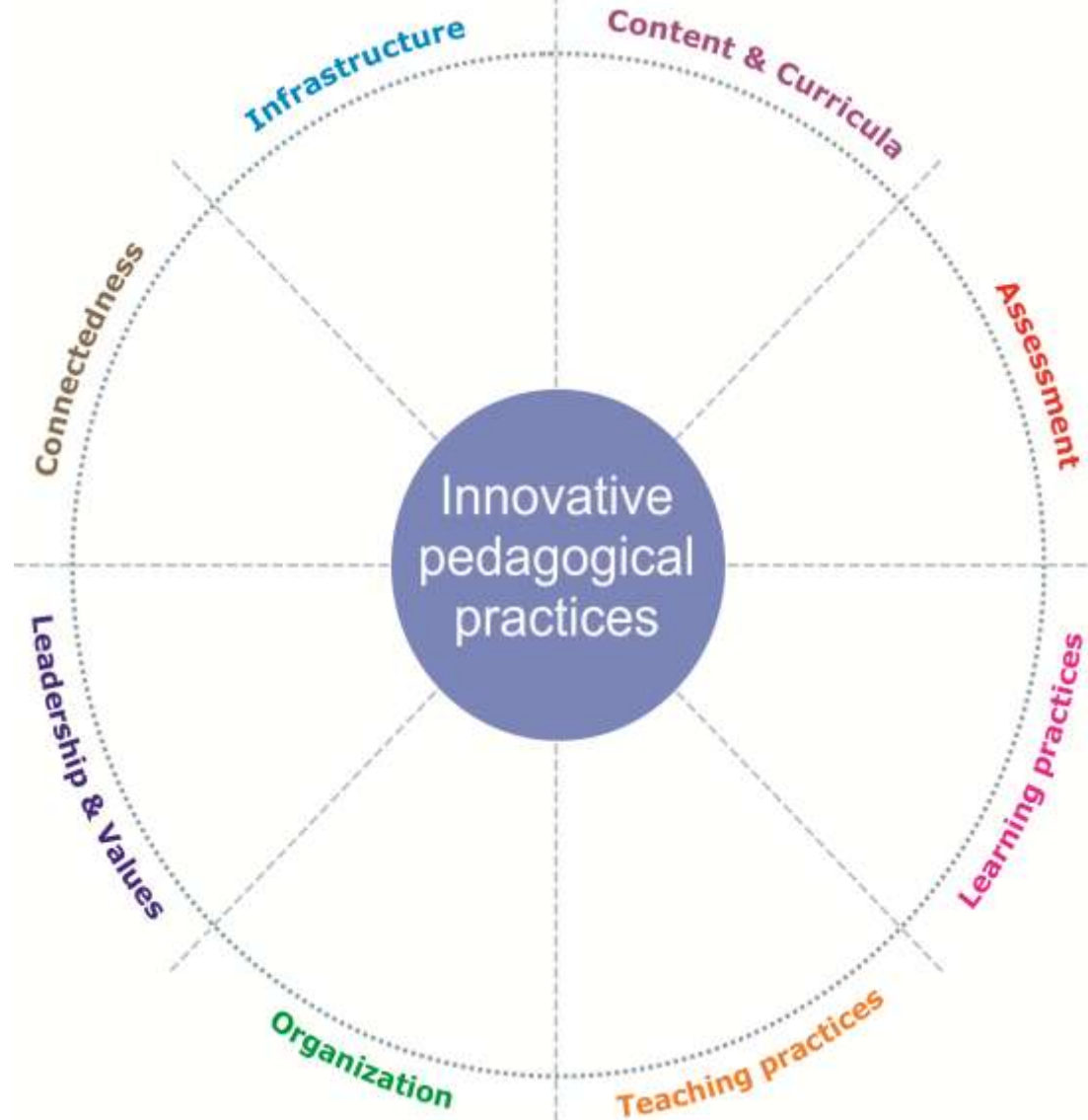
## Social responsibility

- Inclusive school (also using ICT)
- Integrate work skills and formal studies
- Non exclusion of schooling opportunities (SES)
- Response to market demands
- OE improves the health of students? (PK)
- Safe use of ICT
- Designing for all. (learners, styles...)

# Comparing with Scale CCR Framework

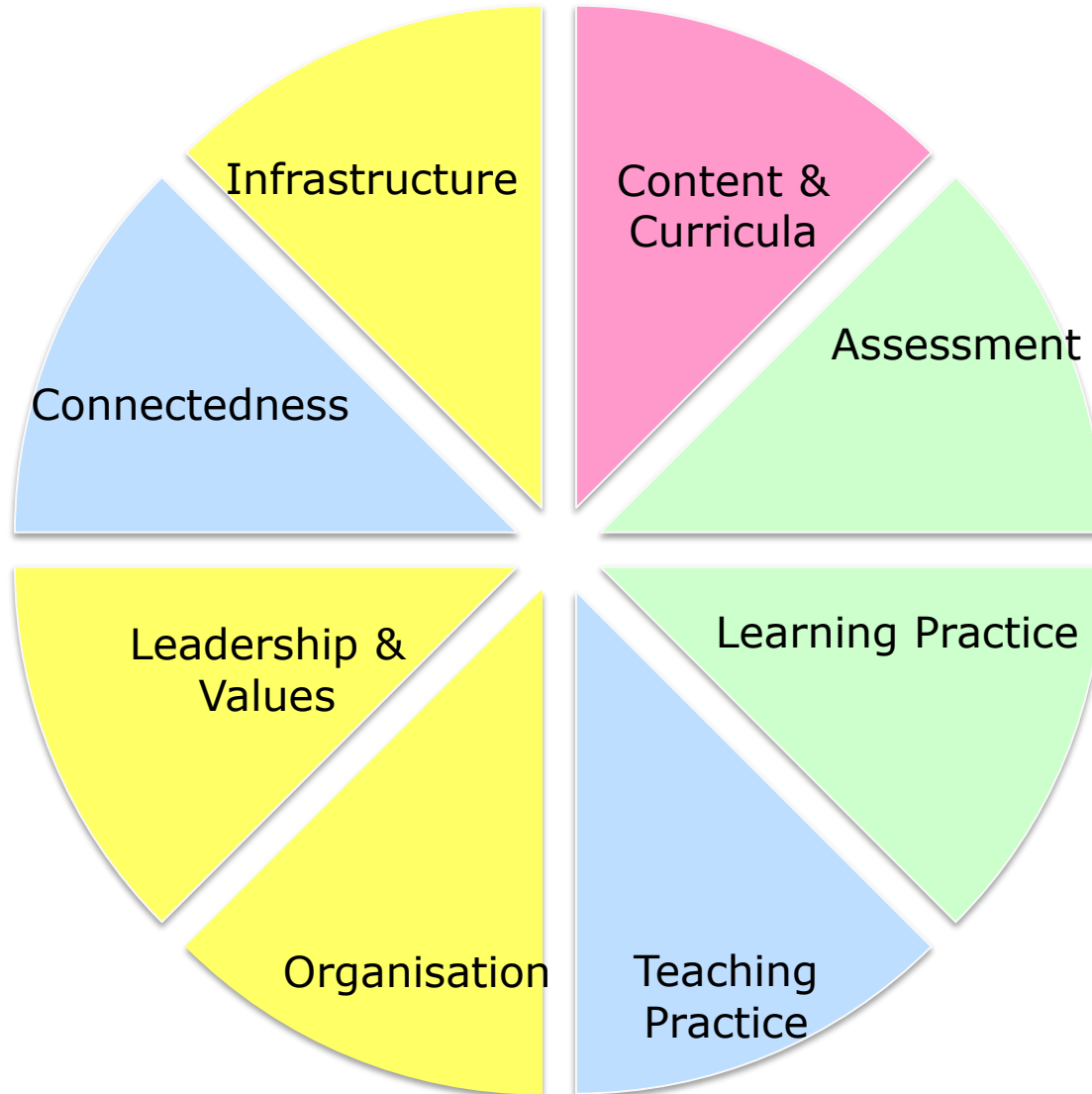


European  
Commission





# Comparing with Scale CCR Framework



# Educational Resources

Importance	Difficulty	
Dark Grey	Dark Grey	Light Purple
Light Grey	Light Grey	Light Purple
Dark Grey	Dark Grey	Light Purple
Light Grey	Light Grey	Light Purple
Dark Grey	Dark Grey	Light Purple

1. Decide on the five most relevant trends/issues/options... for OE 2030
2. How important/desirable are them (10= most desirable; 5= least desirable)  
Each point only once!
3. How difficult are they to achieve (10=most difficult - 5= not so difficult)

# Personalisation & Flexibility

Importance	Difficulty

Five large, rounded rectangular boxes for notes, corresponding to the rows in the table above.

1. Decide on the five most relevant trends/issues/options... for OE 2030
2. How important/desirable are them (10= most desirable; 5= least desirable)  
Each point only once!
3. How difficult are they to achieve (10=most difficult - 5= not so difficult)

# Social Interaction

Importance	Difficulty	

1. Decide on the five most relevant trends/issues/options... for OE 2030
2. How important/desirable are them (10= most desirable; 5= least desirable)  
Each point only once!
3. How difficult are they to achieve (10=most difficult - 5= not so difficult)

# OPEN SCHOOLS & SOCIETY

Importance	Difficulty	
Dark Grey	Dark Grey	Yellow
Light Grey	Light Grey	Yellow
Dark Grey	Dark Grey	Yellow
Light Grey	Light Grey	Yellow
Dark Grey	Dark Grey	Yellow

1. Decide on the five most relevant trends/issues/options... for OE 2030
2. How important/desirable are them (10= most desirable; 5= least desirable)  
Each point only once!
3. How difficult are they to achieve (10=most difficult - 5= not so difficult)

# What to do?

- Consider the Keywords and Dimensions of your sub-topic
- Discuss and decide on the five most relevant trends/issues/options/elements ... for Open Education 2030 in the area you are considering
- How important are these issues to achieve?
  - (10 points for the most important; 9 points for the next ..... 5 points for the least important among these important issues)
- How difficult are they to achieve?
  - (10 points for the most difficult; 9 points for the next ..... 5 points for easiest among them)
- Place each issue on the poster (according to the rating)