



The Future of Open Education and Libraries

@ ZUID Conference 2017 in Heerlen
by **Christian M. Stracke**
Open University of the Netherlands

Welten Institute
Research Centre for Learning, Teaching and Technology

Open Universiteit
welten-institute.org



Open CC License for sharing & re-using slides

This work is free to share under the creative commons licence:
"Attribution – Noncommercial – Share Alike 3.0"

You can copy, distribute and transmit the work under the following conditions:



1. Attribution –
2. Noncommercial –
3. Share Alike



Licence: Attribution-Noncommercial-Share Alike

Some rights reserved, see: <http://creativecommons.org/licenses/by-nc-sa/3.0/>





Dr. Christian M. Stracke: Open Learning & Education, Innovations, Policies, Quality & Competences, Impact

Open University of the Netherlands

Global cooperation: ECNU & KNOU

Global initiative ICORE for OR & OE

International WLS / LINQ Conference

eLC European Institute

ICDE Chair in OER



Welten Institute
Research Centre for Learning, Teaching and Technology

Open Universiteit
welten-institute.org



Selected Projects:

Competence and Skills Modelling

Open Education and Research



Technology-Enhanced Learning at Large Scale

Quality Management and Evaluation

Selected Projects:



www.inclusive-education.net



www.pure-h2o-learning.eu



www.aristotele-ip.eu



www.opendiscoveryspace.eu



www.ecompetence.eu



www.wacom-project.eu



www.isecure-edu.eu



www.mooc-quality.eu



www.agriculture-competences.eu



www.vo3r.eu



www.digifem.eu



www.eMundus-project.eu



www.aristotele-ip.eu



www.learning-standards.eu



<http://lelle.gtk.uni-pannon.hu>



www.inspiringscience.eu

My Hypothesis

We need Open Quality Education

to change education

due to global changes & challenges.

Global changes & challenges

The Digital Age

Two core factors:

- 1. Globalisation &**
- 2. Worldwide Internet**

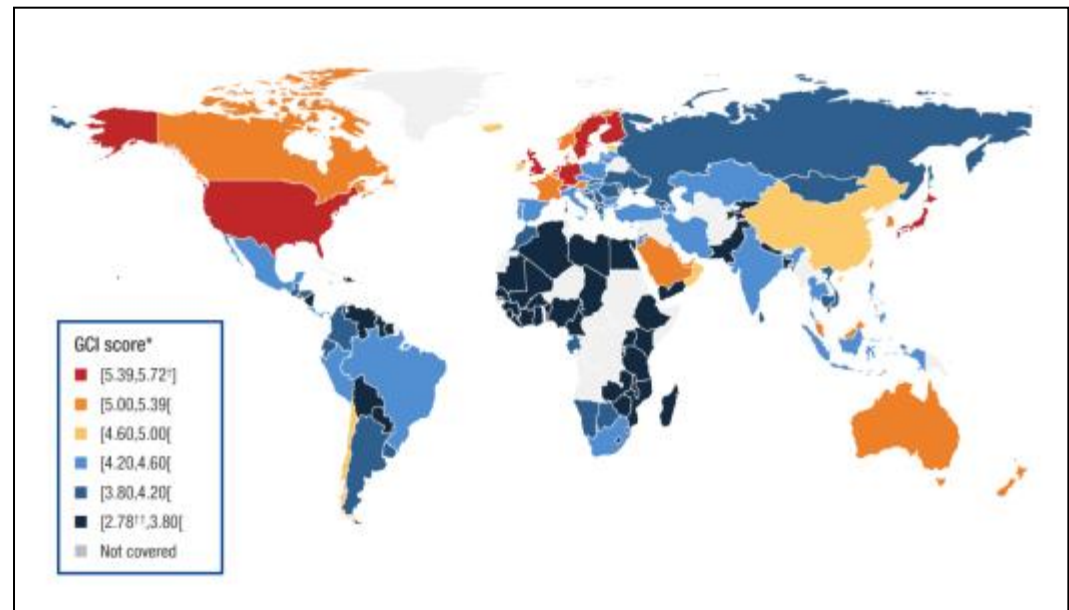


Internationalization

Global Competitions and societal changes

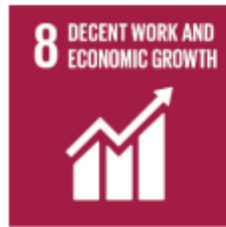
**Close the gaps
& open new
opportunities**

**Challenges:
Learn to Learn**





SUSTAINABLE DEVELOPMENT GOALS



SUSTAINABLE DEVELOPMENT GOALS

Click on goals to show targets and topics related to the Sustainable Development Goals as defined in *Transforming Our World - the 2030 Agenda for Sustainable Development*

- Topics A-Z -



EXPAND ALL GOALS



1 NO POVERTY
End poverty in all its forms everywhere



2 ZERO HUNGER
End hunger, achieve food security and improved nutrition and promote sustainable agriculture



3 GOOD HEALTH AND WELL-BEING
Ensure healthy lives and promote well-being for all at all ages

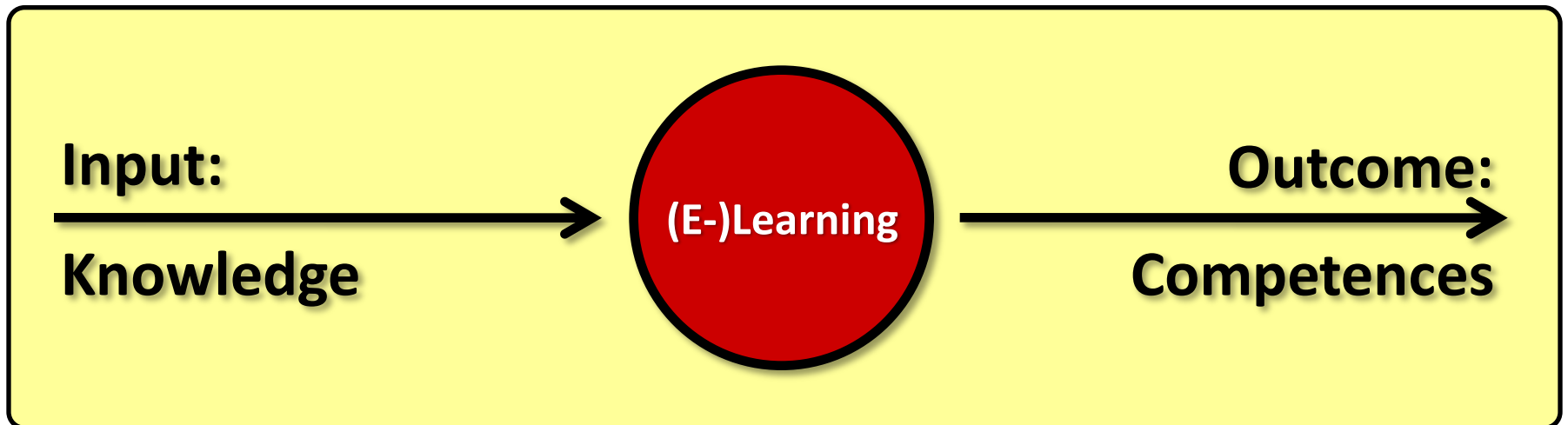


4 QUALITY EDUCATION
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Learning cha(lle)nges

Not knowledge but competences are required to meet future jobs and tasks still unknown today

Change from input to outcome orientation



**We need
Change
in Education!**

**To improve
Quality
in Education!**

**Open Education (OE):
Innovations for **changing**
& **opening up** education
to improve the **quality****

**What is
Open
Quality
Education?**

**What is
Quality
Education?**

**What is
Quality?**

**A simple
experiment ...**



A simple experiment:

**Please imagine and define
the quality of your
favourite jelly bear**

Quality cannot be defined

**... except through adaptation
to your situation and context!**

**What is
Quality
Education?**

Quality

most important

**for Learning, Education
and Training!**



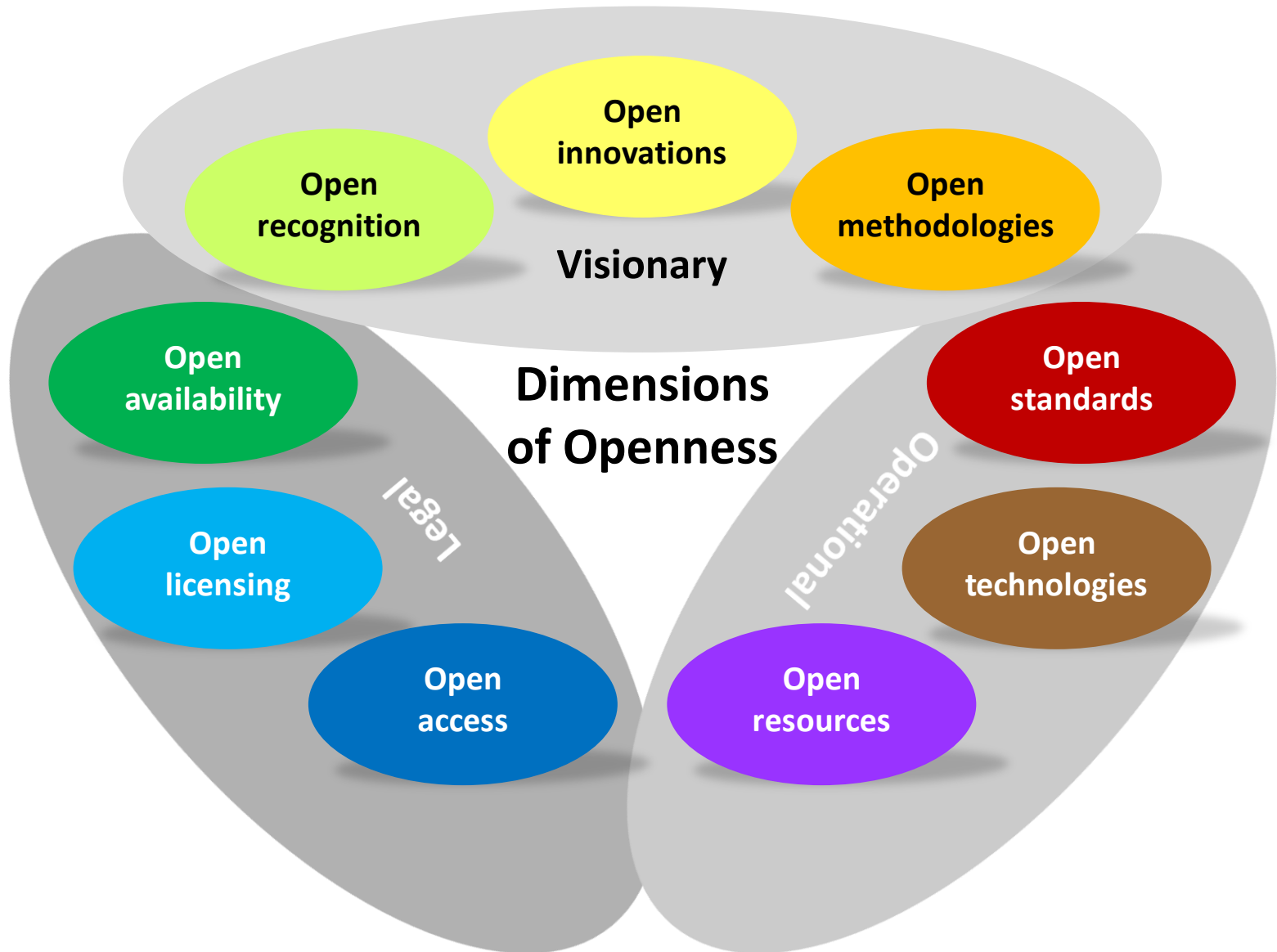
**Quality: Most important
... and "new pedagogy" is
important just the same!**

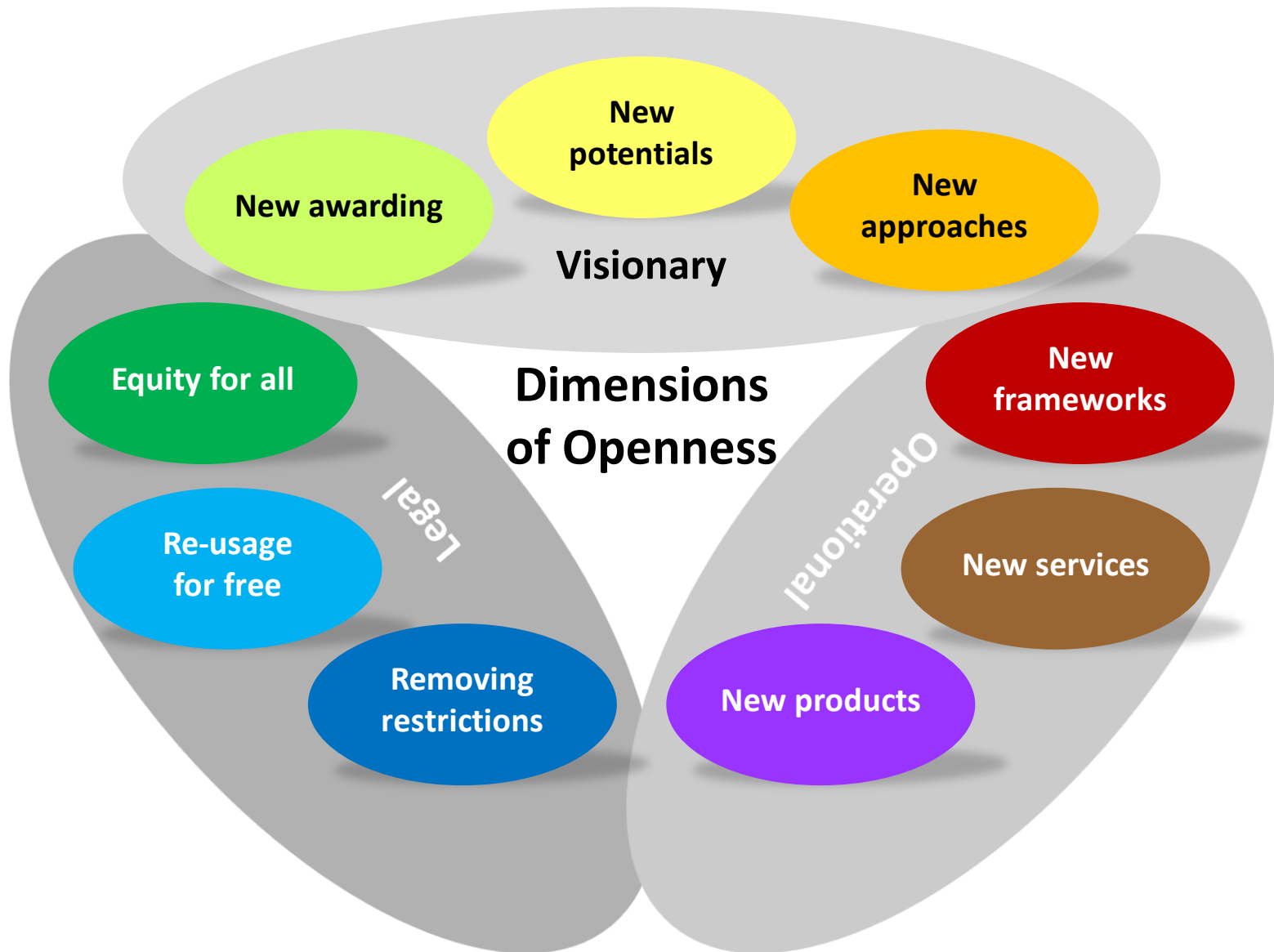


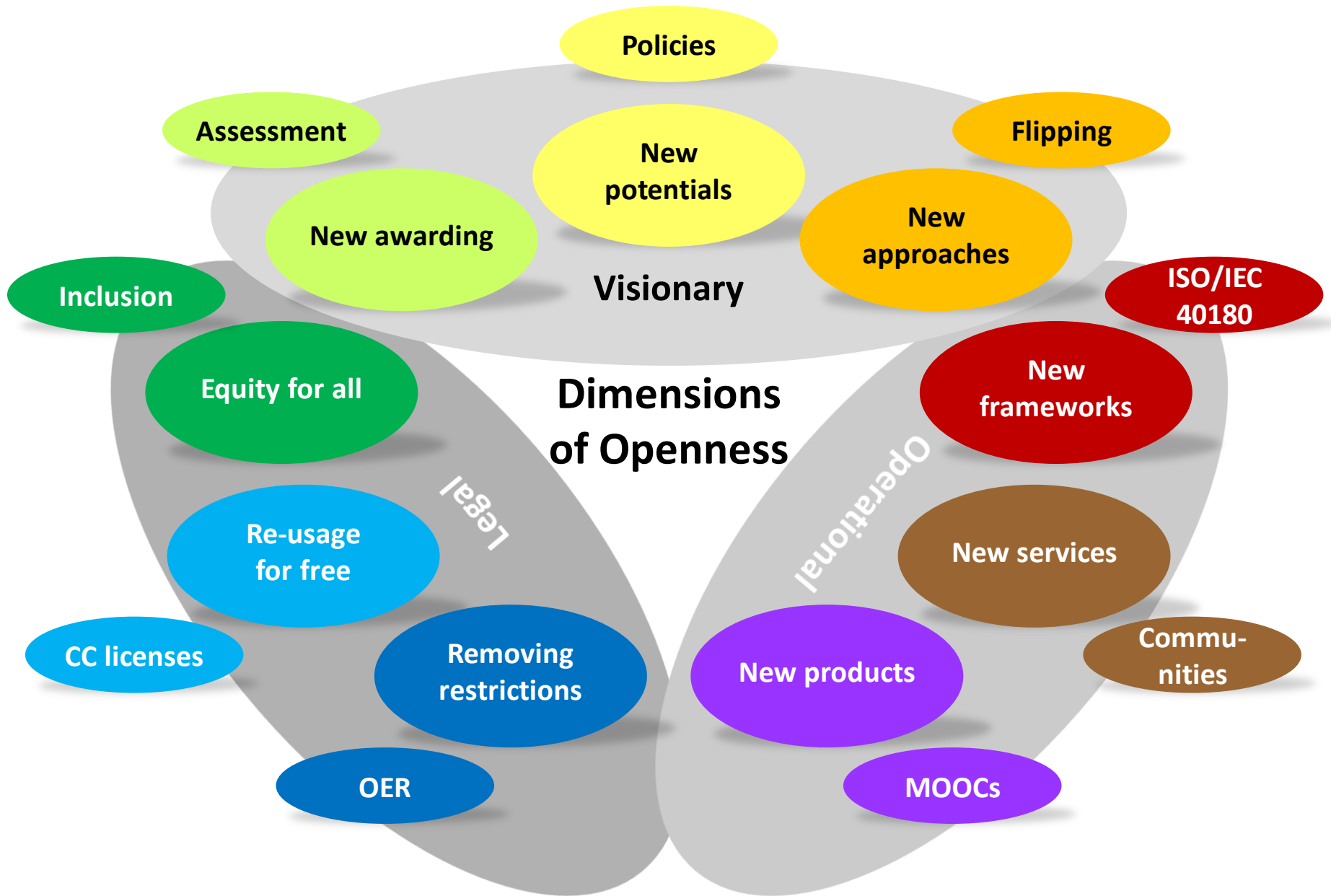
**What is
Open
Quality
Education?**



Source: <https://www.flickr.com/photos/opensourceway/>













Open Education (OE)

Macro:

Policies and Curricula

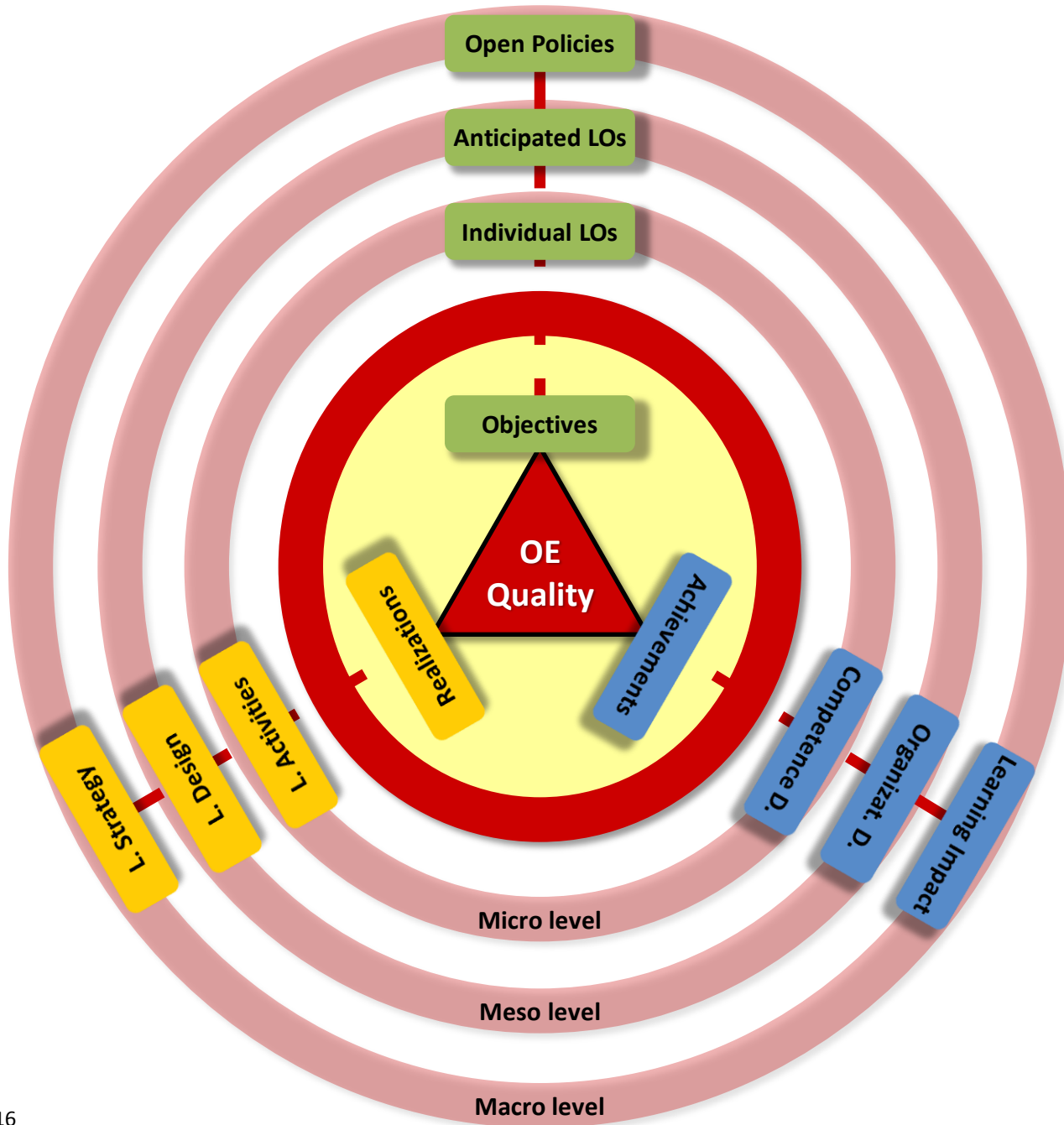
Strategic & organisational

Meso:

Organisation and Design

Micro:

Learner and Course



**We need Open
Quality Education!**

**We need Open
Quality Education!**

... with fun!

**Future of
Open
Quality
Education
in Practice**

Open Education (OE)

Do not to forget the long-term history:

1000 BCE - : Open Educational Practices

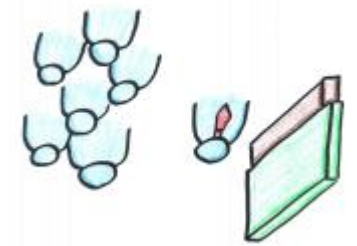
- **Open discourse (Confucius, Socrates)**

1800 CE - : Open Learning

- **Progressive theory (Pestalozzi, Humboldt)**
- **Competence building (Piaget, Vygotsky)**



Waves of OE



1960s: Open Classrooms

1960s: Open Universities

1990s: Open Educational Resources

2000s: Open Online Collaboration

2010s: Open Educational Practices

Now: Open Educational Environments



Open Education (OE)

Macro:

Policies and Curricula

Strategic & organisational

Meso:

Organisation and Design

Micro:

Learner and Course

Quality by OE

Macro:

Movement & Strategies

Strategic & organisational

Meso:

Frameworks & Standards

Micro:

Competence & Community

OE Examples: EC

Strict open policy:

All research results from H2020 and other funding programmes have to be published with “green” open access license

In addition: Open data policy

OE Examples: NL

Strict open policy:

All research results from Dutch funding programmes with open access license

In addition: Framework contracts with major publishers (Springer, Wiley) to opt for “gold” open access for free

OE Examples: OUNL

Strict open policy:

**All research results and publications
with “green” open access license on
our own open repository Dspace**

<http://dspace.ou.nl/>

**In addition: Open Education strategy
and research group in Welten Institute**

OUNL Video

**The Welten Research Institute:
Leading in Learning Innovations**



www.youtube.com/watch?v=bzYwLkbB2Ys

Open Quality E-Learning

Macro: Movement & Strategies

Meso: Frameworks & Standards

Micro: Competences & Communities

International Policies

UNESCO: OER Declaration

<http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-educational-resources/what-is-the-paris-oer-declaration>

European Commission: Opening Up Education

http://ec.europa.eu/education/policy/strategic-framework/education-technology_en.htm

ICORE / OEC: Declaration of Crete

http://wiki.icore-online.org/index.php/ICORE_Declaration_of_Crete

Republic of the Philippines: Open Distance Learning Act

<http://www.gov.ph/2014/12/09/republic-act-no-10650/>

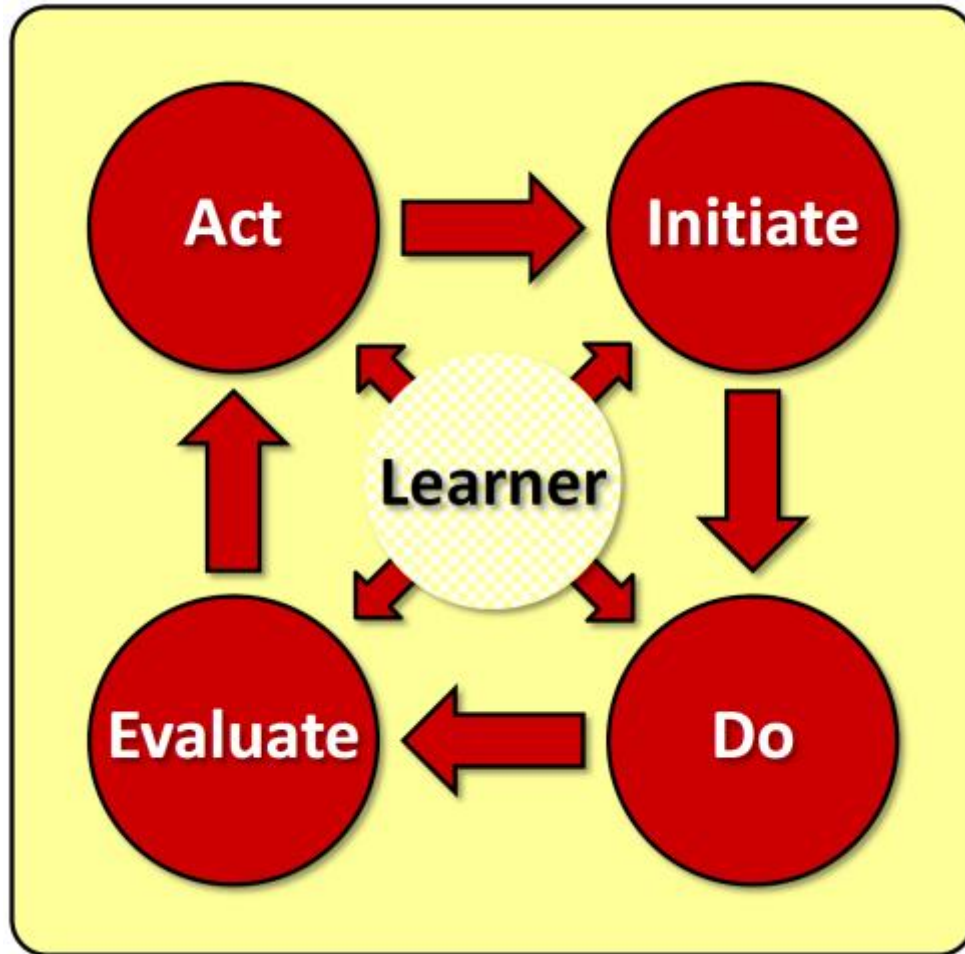
Open Quality E-Learning

Macro: Movement & Strategies

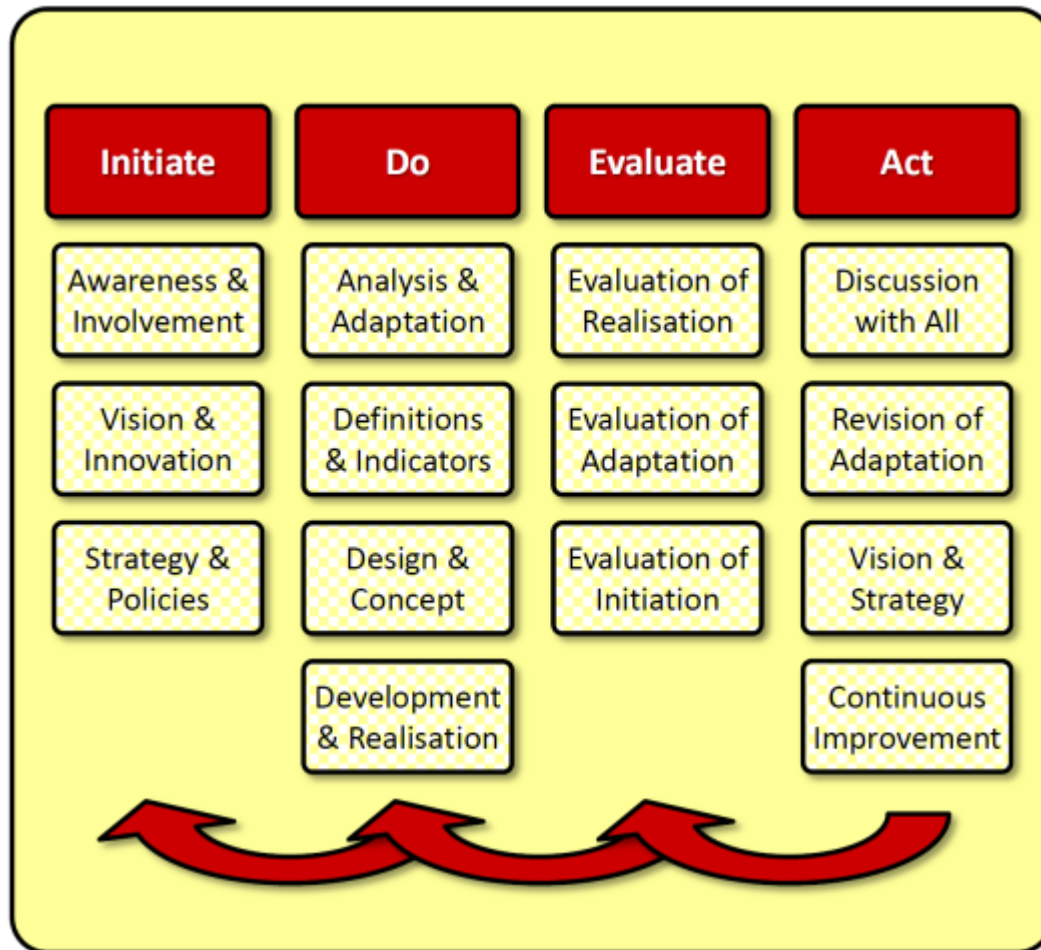
Meso: Frameworks & Standards

Micro: Competences & Communities

Strategies: IDEAL

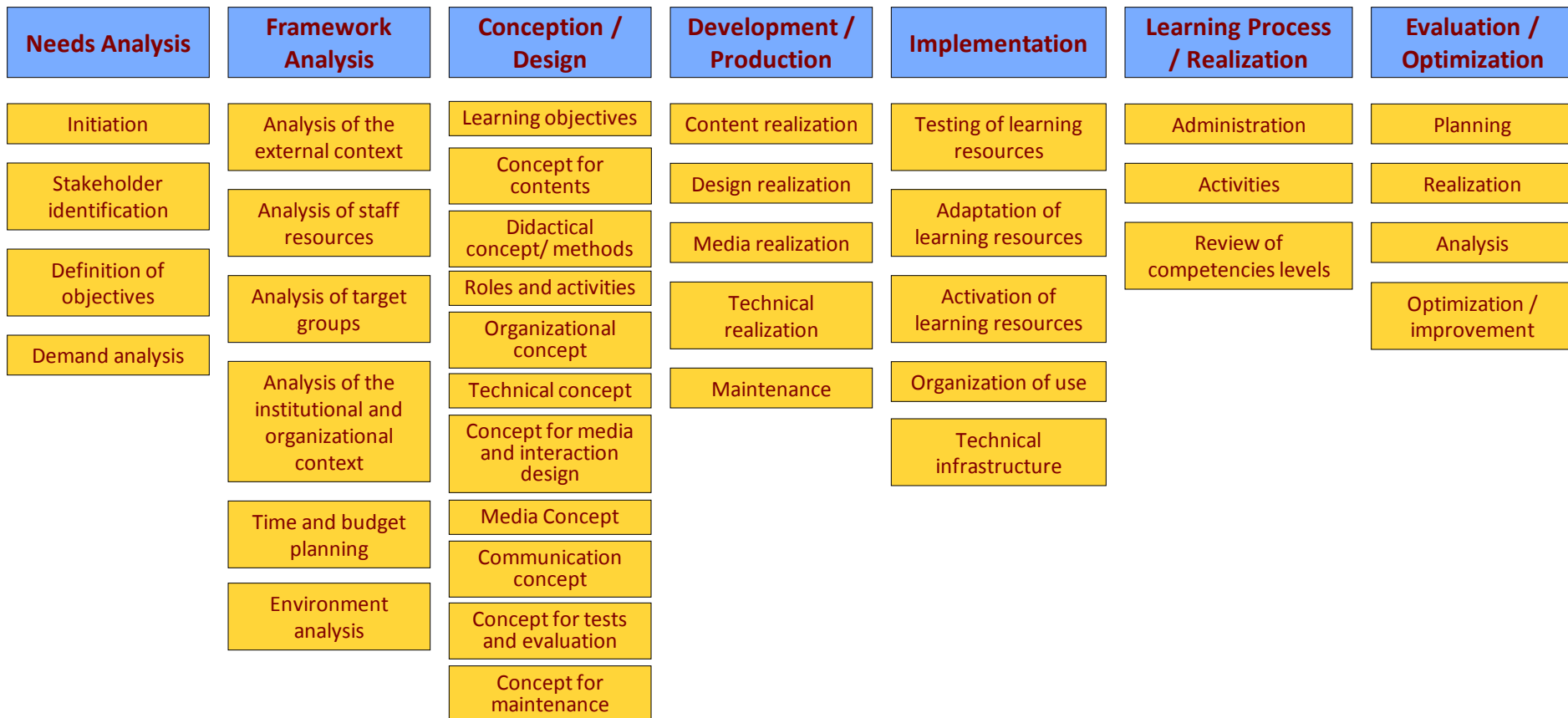


Strategies: IDEAL



Standard: ISO/IEC 19796-1

The Reference Process Model:



Standard: ISO/IEC 19796-1

Example of required adaptation:

Needs Analysis	Framework Analysis	Conception / Design	Development / Production	Implementation	Learning Process / Realization	Evaluation / Optimization
Initiation	Analysis of the external context	Learning objectives	Content realization	Testing of learning resources	Administration	Planning
Stakeholder identification	Analysis of staff resources	Concept for contents	Design realization	Adaptation of learning resources	Activities	Realization
Definition of objectives	Analysis of target groups	Didactical concept/ methods	Media realization	Activation of learning resources	Review of competencies levels	Analysis
Demand analysis	Analysis of the institutional and organizational context	Roles and activities	Technical realization	Organization of use		Optimization / improvement
	Time and budget planning	Organizational concept	Maintenance	Technical infrastructure		
	Environment analysis	Technical concept				
		Concept for media and interaction design				
		Media Concept				
		Communication concept				
		Concept for tests and evaluation				
		Concept for maintenance				

Open Quality E-Learning

Macro: Movement & Strategies

Meso: Frameworks & Standards

Micro: Competences & Communities

Learn how to learn

Learning-how-to-Learn:

The key competence in 21st century

**Focus on inclusion of learning skills
into curricula**

lelle.gtk.uni-pannon.hu





1st June
09.30 - 16.30

LELLE Regional Conference 2017 **Learning to Learn: Beyond 2020**

Open University of the Netherlands, Heerlen

LELLE (Let's Learn how to Learn) is the Erasmus+ project which embraces a long-term vision to equip our graduates with core life-skills making them ready and mobile for the job market and the workplace.

The LELLE regional conference aims to bring together students, teachers, graduates, practitioners, researchers, budding entrepreneurs, industry players, policy makers etc. to share and to learn about the ongoing challenges, as well as the huge potential in the changing educational landscape and the global workplace of the future. We hope to empower all who are involved in education and the workplace with inspiration and tools to stay relevant in the 21st century.



This project has been funded with support from the European Commission. This publication (communication) reflects the views only of the author, and the Commission cannot be held responsible for any use, which may be made of the information contained therein.
Project number: 2015-1-HL01-KA201-013619

Welten Institute
Research Centre for Learning, Teaching and Technology

Open Universiteit
welten-institute.org



LELLE Regional Conference 2017

PROGRAM

- 09.30 - 10.00 Registration & Welcome**
- 10.00 - 10.10 Opening Address**
Assoc. Prof. Dr. Christian M. Stroocke, Welten Institute, Open University of the Netherlands
- 10.10 - 10.30 Presentation of the LELLE Project**
Dr. Esther Tan, Welten Institute, Open University of the Netherlands
- 10.30 - 12.30 PLENARY SESSION**
- Empowering our graduates for the workplace: An open education perspective**
Prof. Dr. Marco Kalz, Chair of Open Education, Welten Institute, Open University of the Netherlands
- How to teach the unknown**
Dr. Katerina Bohle Carbonell, Lecturer, Management of Learning, Maastricht University
- Bridging Gaps**
Mark Bertrand, Senior Lecturer, Faculty of Commerce & Finance, Zuyd University for Applied Sciences; member of the 'Entrepreneurship & Innovation' lectureship, SLIMhuis
- Hacking Education for Disruptive Changes in the 21st Century**
Nick van Breda, Changemaker & Transitioner, Nick van Breda Consultancy
- 12.30 - 13.30 Lunch and Poster Walk**
- 13.30 - 14.15 Workshop 1: Entrepreneurial Education**
Paul Crutzen, Facilities Coordinator, Qeske Community
- 14.15 - 15.00 Workshop 2: Transforming Education**
Guido van Dijk, Welten Institute, Open University of the Netherlands, Agile in Education, Agora Roermond (SOML)
- 15.00 - 15.30 Coffee Break**
- 15.30 - 16.15 Workshop 3: Adventurous and Creative Learning**
Peter P. Biekens, Fontys Education Designers
- 16.15 - 16.30 Closing Address**
- 16.30 ... Network Reception**

Registration: www.bit.ly/LELLE_OUNL_Conference_Registration

Problem-based learning

Problem-based Learning as method for key competences in 21st century

Focus on integrating learning analytics & semantics in problem-based learning

www.PBL3-project.eu



Open inclusive learning

Evidence-based inclusive
school education in Europe

PROSEL for prosociality &
social emotional learning



www.inclusive-education.net

Open Schools

Facilitating Open Educational Practices

- **Open classrooms**
- **Competence focus**
- **OER re-use**



United Nations
Educational, Scientific and
Cultural Organization



OPEN EDUCATIONAL RESOURCES

Communities: ODS & ISE

> 10,000 teachers and
> 3,000 schools in 28 countries

Home Project News Dissemination Events Community Consortium Contact

CONTENT PROVIDERS

PARENTS

POLICY MAKERS

TEACHERS

Welcome to Open Discovery Space

OpenDiscoverySpace: Unique Resources just a click away!

www.opendiscoveryspace.eu

inspiring SCIENCE education

Email us | contact@inspiring-science.eu
More info: +352 44 10122186

Search... Search

HOME ABOUT PARTNERS NEWS CONTACT

Connecting Formal & Informal Learning Settings

Welcome

In the framework of the Inspiring Science Education project the consolidation of good practice will be achieved by:

- Bringing into the classroom a unique collection of digital resources and tools that are based on real-world problems. The resources will involve students in finding their own problems, testing ideas (from small to big ideas in science), receiving feedback, and working collaboratively with other students or practitioners beyond the school classroom. Advanced eLearning tools will provide scaffolds that enhance learning, support thinking and problem solving, model activities and guide practice, represent data in different ways, and form part of a coherent and systemic educational approach.
- Giving students and teachers more opportunities to evaluate the quality of their own thinking and products for feedback, reflection, and revision.
- Giving students and teachers the opportunity to interact with working scientists, receive feedback from multiple sources.
- Building local and global communities where teachers, teacher trainers, education policy makers, parents, students, practicing scientists and other interested members of society are involved in order to ensure the learning environment beyond the school walls and extend opportunities for teachers' professional

www.inspiring-science.eu & portal.opendiscoveryspace.eu/ise

Open Discovery Space

The screenshot shows the homepage of the Open Discovery Space website. At the top left is the logo for 'ods OPEN DISCOVERY SPACE'. To the right is a login section with fields for 'Username or e-mail' and 'Password', a 'Log in' button, and a link for 'Request new password'. Below the logo is a navigation bar with the slogan 'linkup, create, share, grow' and a call to action 'New in ODS? Join our teachers' community'. A search bar is located on the right side of the navigation bar. The main content area features a large image of three children looking at a laptop, with the text 'An inspiring afternoon of practice for Education...' and a sub-headline 'What should children learn to be fully prepared for life in the 21st century? Besides language and...'. At the bottom, there are five columns representing different categories: Resources (818632 Resources), Communities (1153 Communities), Schools (2588 Schools), Teachers (11676 Teachers), and ODS Academies (165 Activities).

www.opendiscovery.eu

ods OPEN DISCOVERY SPACE

Username or e-mail

Password

Log in

Request new password

linkup, create, share, grow

New in ODS? Join our teachers' community

Learn more about ODS

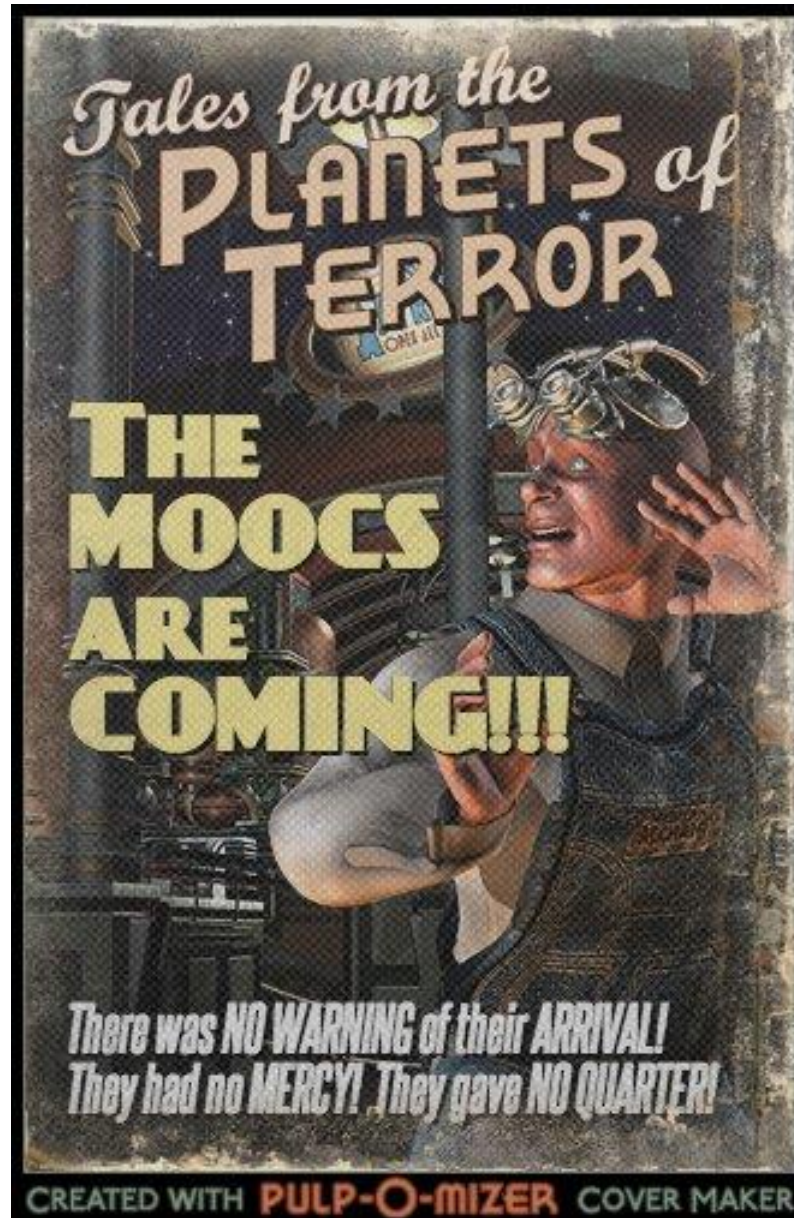
Search for educational resources...

An inspiring afternoon of practice for Education...

What should children learn to be fully prepared for life in the 21st century? Besides language and...

RESOURCES	COMMUNITIES	SCHOOLS	TEACHERS	ODS ACADEMIES
EXPLORE OUR RESOURCES TO USE IN THE CLASSROOM AND PLAN YOUR LESSONS	SHARE EDUCATIONAL CONTENT THROUGH COMMUNITIES OR START YOUR OWN	NAVIGATE THROUGH THE SCHOOLS OF ODS NETWORK	BEING CONNECTED WITH OUR TEACHERS FROM ALL OVER THE EUROPE	FOLLOW THE ODS ACADEMIES TO IMPROVE YOUR PROFESSIONAL EDUCATION
818632 RESOURCES	1153 COMMUNITIES	2588 SCHOOLS	11676 TEACHERS	165 ACTIVITIES

Quality in MOOCs



Source: <https://www.flickr.com/photos/catspyjamasnz/>

**INDESCRIBABLE...
INDESTRUCTIBLE!
NOTHING CAN STOP IT!**

THE MOOC



SEBASTIAN THRUN UDACITY COURSERA EDX
PRODUCED BY DIRECTED BY SCREENPLAY BY
STEPHEN DOWNES **GEORGE SIEMENS** **DAVE CORMIER**
BY IRVING H. MULLIGATE A TONYEVN PRODUCTION - COLOR BY DE LOUX **ALEC COURDS**




Challenges for MOOCs

MOOCs = Massive Open Online Courses

- **cMOOCs vs. xMOOCs (vs. yMOOCs?)**
- **Openness?**
- **Quality?**
- **Tutoring?**
- **Completion rate?**

The big advantage:

Mass marketing for E-Learning

The background features a large, abstract graphic of overlapping, wavy lines in various shades of green, creating a sense of movement and depth. The text is centered and clearly legible against this background.

mooq

**WE WILL MAKE
MOOCs BETTER!**

www.mooc-quality.eu



Quality Reference Framework with indicators for design & comparison

Our main goal is the collaboration with all to improve future MOOC design for better MOOC learning experiences



**Three main surveys for learners,
designers and facilitators of MOOCs**

Please support us to improve next MOOCs:

www.survey.MOOC-quality.eu

Your feedback is most welcome!

MOOQ Pre-Survey

16 questions in 4 clusters (n=45):

- 1. Experience with MOOCs (5 questions)**
- 2. Perception and Expectation (5 questions)**
- 3. Personal Goals (4 questions)**
- 4. Recognition and Certification (2 questions)**

n=45: reveals that many MOOC learners do not share the intentions of the MOOC designer & have their own goals

The logo for MOOC, consisting of the letters 'moooc' in a lowercase, sans-serif font. The 'o' at the end is stylized with a yellow-to-green gradient and a small yellow dot below it.

moooc

A background of flowing, translucent green lines that create a sense of movement and energy, starting from the bottom left and curving towards the top right.

**Join our Global
MOOC Survey!**

www.mooc-quality.eu

Global MOOC Survey

Global Survey on the
Quality of MOOCs

[Load unfinished survey](#)

[Exit and clear survey](#)



Global Survey on the Quality of MOOCs

This Global Survey aims at improving the Quality of MOOCs and is facilitated by the [European Alliance MOOQ](#). Thank you very much for your participation!

WELCOME to the Global Survey on the Quality of MOOCs!

Dear Participant,

The survey addresses MOOC learners, MOOC designers and MOOC facilitators. It begins with a few questions on your profile before you are asked to select the survey section that fits best to your main role in MOOCs (i.e., either as MOOC learner, MOOC designer, or MOOC facilitator).

Please support us to improve the quality of future MOOCs and take 20 - 30 minutes to answer our questions. Thank you very much for your time!

We value your privacy and guarantee your privacy and data protection: [Please read our privacy statement here.](#)

To start the Global Survey, click the button "Next" below, you can save the Global Survey and continue it later at any time. It runs until the end of March 2017.

The Global Survey is organized by the [European Alliance MOOQ](#) led by the [Open University of the Netherlands](#), and is supported by:

[United Nations' UNESCO IITE](#), [United Nations' ITCILO](#), [United Nations' FAO](#), [United Nations' UNITAR](#), [International Council for Distance and Open Learning \(ICDE\)](#), [Commonwealth of Learning \(COL\)](#), [International Community for Open Research and Education \(ICORE\)](#), [European Association of Distance Teaching Universities \(EADTU\)](#), [European Distance and E-Learning Network \(EDEN\)](#), [European Association for Technology-Enhanced Learning \(EATEL\)](#), [Open Education Consortium \(OEC\)](#), [Contact North \(CN\)](#), [European Association for Practitioner Research on Improving Learning \(EAPRIL\)](#) and many more



MOOQ Survey

Combines 3 surveys on 13 constructs:

- 1. MOOC learners (69 questions)**
- 2. MOOC designers (89 questions)**
- 3. MOOC facilitators (58 questions)**

**3 months with huge support (n=625):
reveals that most MOOC learners
reported positive learning experiences
with MOOCs**

**Our proposal
for discussion:**

**The Quality Reference
Framework (QRF)**

QRF for Open Education

What is Open Education (OE)?

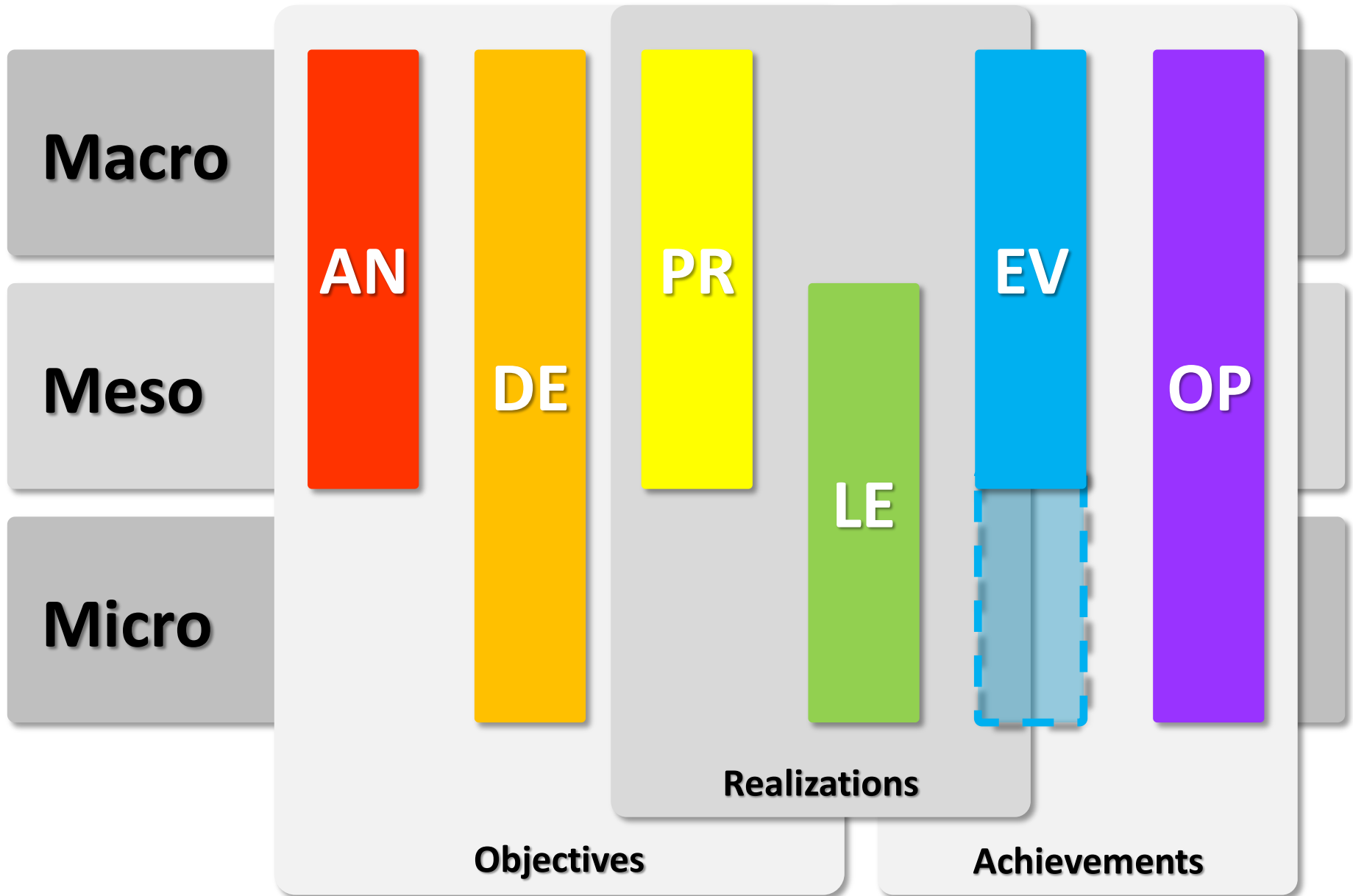
Quality dimensions of OE in practice?

Quality indicators for OE in practice?

QRF Quality Dimensions

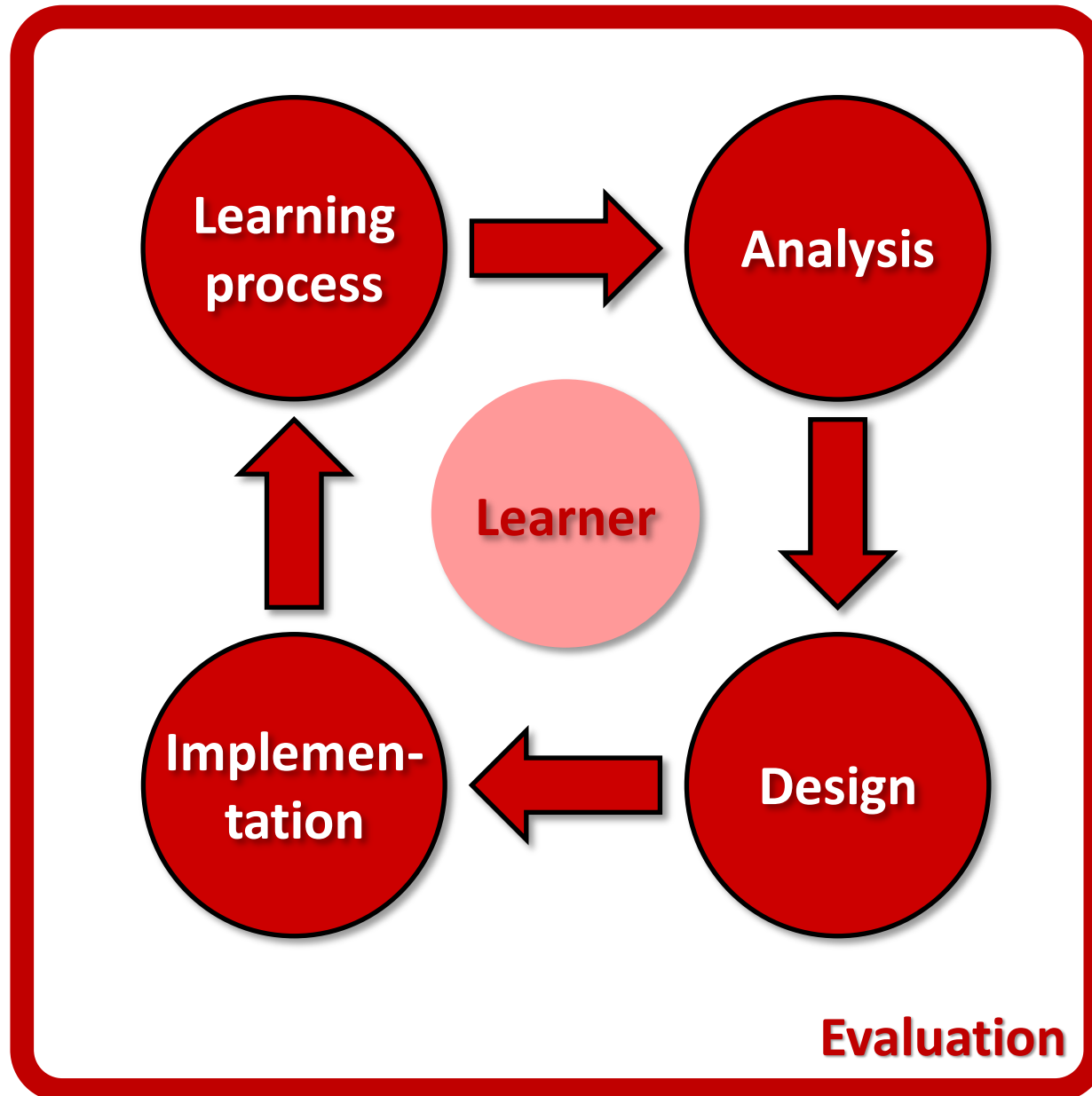
Quality dimensions of OE in practice:

- 1. Dimension: Analysis**
- 2. Dimension: Design**
- 3. Dimension: Implementation**
- 4. Dimension: Learning Process**
- 5. Dimension: Evaluation & Optimization**



Stracke, C.M., 2016: "Openness for learning quality and change by Open Education in theory and practice - Overview, history, innovations and policies: How can Open Learning, OER and MOOCs achieve impact for learners, organizations and in society?" [in print]

QRF Quality Dimensions



Future of (Open) Libraries

**What are
(Open)
Libraries?**

Projects for Research & Repositories:

1. VOA3R

@ Open Research



www.voa3r.eu

2. LoCloud

Cloud services for local content collections



www.locloud.eu

and many more...

www.opening-up.education

VOA3R – Open Access for digital resources



VOA₃R

Virtual Open Access Agriculture & Aquaculture Repository:
sharing scientific and scholarly research related to
agriculture, food, and environment

**OPEN ACCESS & METADATA
FOR SCIENTIFIC RESEARCH**

Christian M. Stracke

christian.stracke@icb.uni-due.de

FINAL VOA₃R OUTCOMES: OVERVIEW OF ACHIEVED RESULTS

VOA₃R Main Outcomes:

Harvesting of Digital Resources with FAO

2,640,000+ OA resources from 24 repositories

Final VOA₃R Conference (conjunct with LINQ)

Sustainability through FAO AGRIS and ICORE

VOA₃R Project: <http://voa3r.eu>

VOA₃R Platform: <http://voa3r.cc.uah.es/>



Open Libraries Examples

FAO and VOA3R:

www.voa3r.eu

Europeana:

www.europeana.eu/portal/en

Wikiwijs - Dutch OER initiative by Kennisnet:

www.wikiwijs.nl

Norwegian Digital Learning Arena (NDLA):

www.ndla.no

Challenges for Libraries

- **Openness of Open Education and OER**
- **Quality of OER**
- **New distribution (e.g., through MOOCs)**
- **Fragmentation of repositories**
- **Different formats and authoring tools**
- **Different licenses (Creative Commons et al.)**
- **Different metadata schemes (MLR, DC et al.)**

EN ISO/IEC 19788

Multi-part ISO Metadata Standard

**Unique ISO Metadata standard to be used
in all IT systems & branches by adaptations**

Defining rules sets, UIDs and templates

**Based on Dublin Core (100% compliant) to
keep international consensus & acceptance**

EN ISO/IEC 19788

Multi-part ISO Metadata Standard

**International Metadata Standard,
approved and published by ISO in 2011:**

**Developed by SC36 and approved by ISO
after 10 years of global discussions**

**Flexible, rule-based and allowing APs and
mapping to all other schemes (incl. EDM)!**

MLR Data Element Specification

Example 1:

Data element specification	
Identifier (mandatory)	ISO_IEC_19788-3:2010::DES0300
Data element attributes	
Property name (mandatory)	format (eng)
Definition (mandatory)	file format of the learning resource (eng)
Linguistic indicator (mandatory)	non-linguistic
Domain (mandatory)	<i>Learning Resource</i> (ISO_IEC_19788-1:2010::RC0002)
Range (mandatory)	<i>literal</i>
Content value rules (conditional)	RS_DES0300
Refines (conditional)	ISO_IEC_19788-2:2010::DES0900
Example(s) (optional)	video/mpeg text/html
Note(s) (optional)	-

MLR Data Element Specification

Example 2:

EXAMPLE 2 (same as example 1, but presented differently)

Data element specification ID	ISO_IEC_19788-2:2010::DES0300
Subject	urn:ISBN:978-1-4000-1952-6
Content Value	Fodor's New Zealand 2009
Language Code	eng

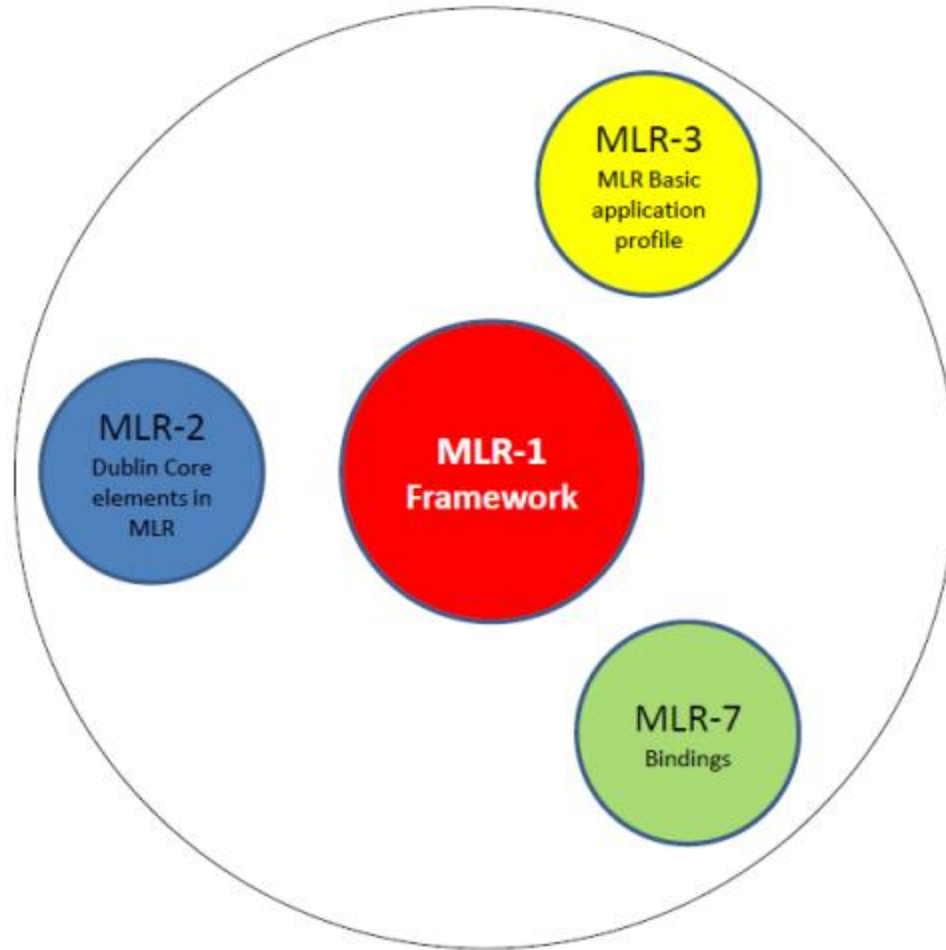
Example 3: (RDF)

EXAMPLE 3 (same as example 1, but expressed in RDF)

Predicate	ISO_IEC_19788-2:2010::DES0020
Subject	urn:ISBN:978-1-4000-1952-6
Object	"Fodor's New Zealand 2009"@eng

Basic MLR

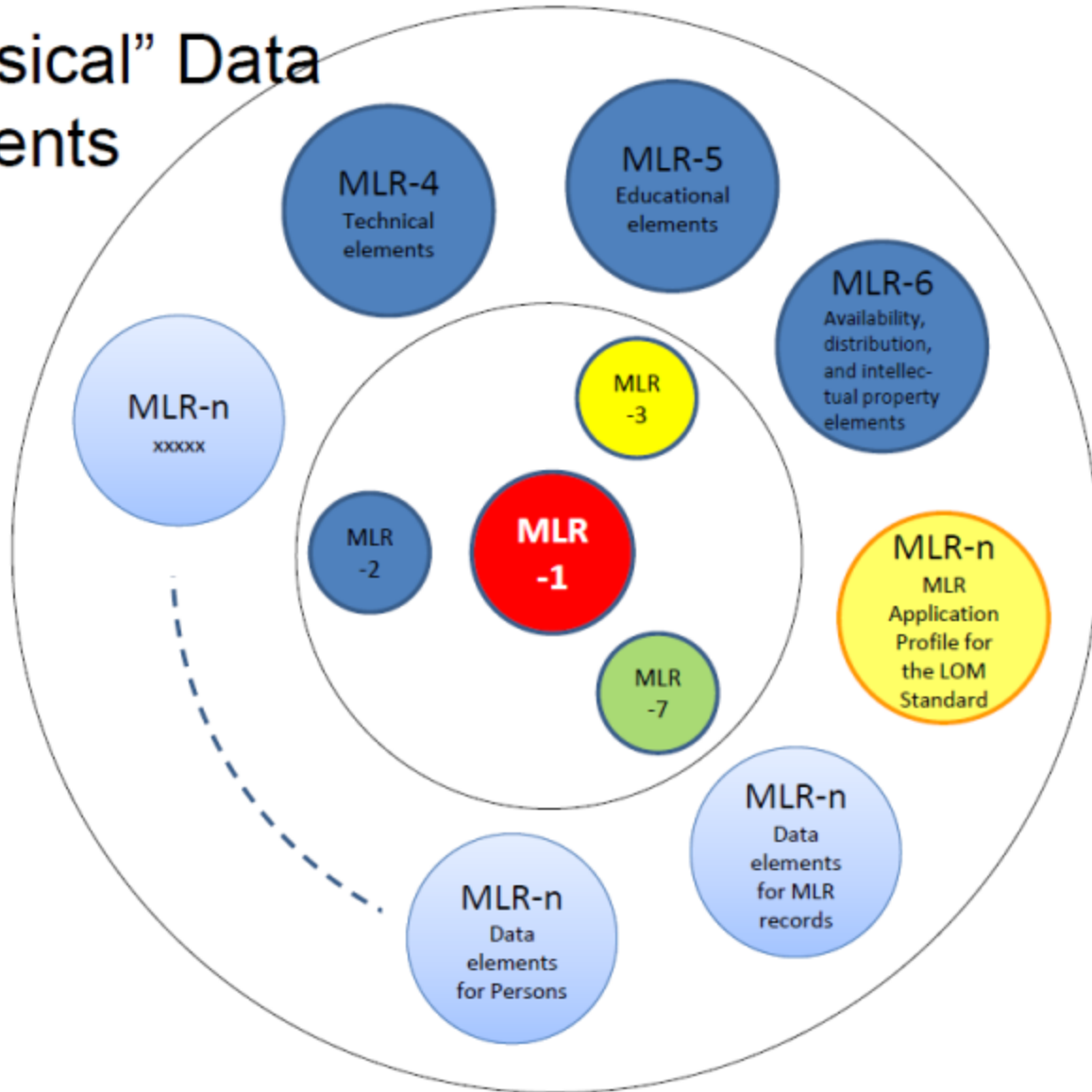
MLR



(Slide by Gilles Gauthier:
SC36 WG4 Convener)

“Classical” Data Elements

MLR

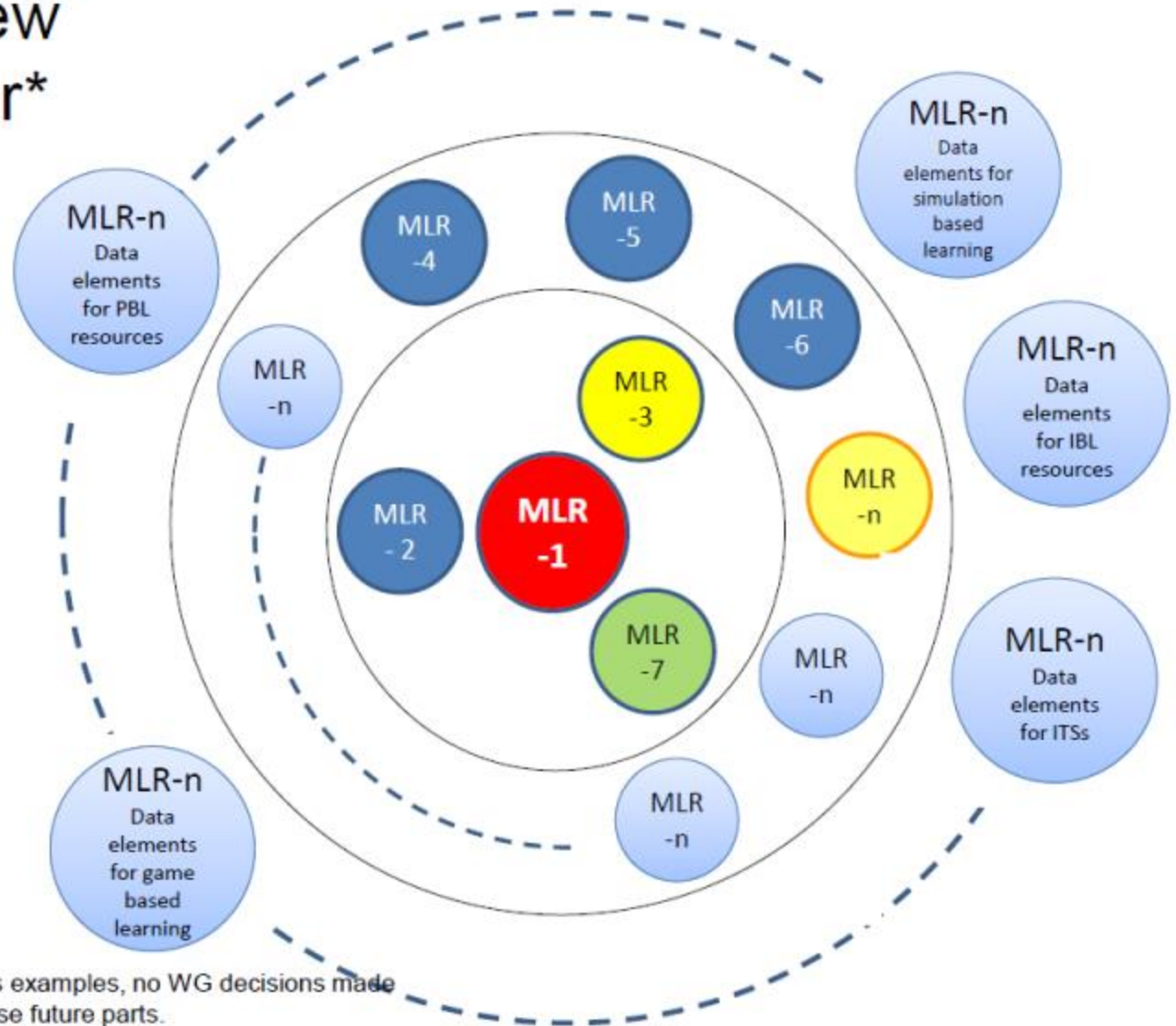


(Slide by Gilles Gauthier:
SC36 WG4 Convener)

The New Frontier*

MLR

(Slide by Gilles Gauthier:
SC36 WG4 Convener)



* Parts provided as examples, no WG decisions made yet concerning those future parts.
The frontier is to be explored!

**How can you
participate?**



World Learning Summit **2017**



Topic 2017: „Smart Universities“



The Call for Papers is open!

www.worldlearningsummit.com



ICORE

ICORE: International Community for Open Research and Open Education

Launched 15th May 2013 in Rome

Already more than 300 members within one year

First recognition by key stakeholders & EC:

Let us join forces and become ICORE member!

www.ICORE-online.org





Opening up education

To improve the learning quality!

Series of ICORE Workshops with key organisations
“How to improve Open Quality Education?”
First ICORE Workshops at ICDE Conference 2015,
EC-TEL 2016, WLS 2017 & OE Global 2016 & 2017!
Towards a global joint initiative!

www.ICORE-online.org



How can you participate?

Publish and share your content!

Re-use existing content!



Connect to colleagues!

How can you join?



**PhD programme in TEL at OUNL
by the leading Welten Institute:**

www.ou.nl/en/web/open-universiteit/-/welten-promoveren

External PhDs: From home

Internal PhDs: Funded, at OUNL

Vacancies: www.academictransfer.com/employer/OU/

Conclusions



Source: <https://www.flickr.com/photos/opensourceway/>



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Open Learning for inclusive equity & high quality education for all

We need ...

- 1. Education to change**
- 2. Quality Education**

**Open Education can
facilitate these changes**

Open Education is a **Vision
that is happening!**

Quality is most important
for your situation & learners

**Inclusion and equity for all
to improve our **Global Society!****

Further References

- Stracke, C. M. (2017). The Quality of MOOCs: How to improve the design of open education and online courses for learners? In Proc. HCI International 2017, Berlin: Springer (in print).
- Stracke, C. M. (2017). Open Education and Learning Quality: The Need for Changing Strategies and Learning Experiences. In Proc. IEEE EDUCON 2017, Berlin: Springer (in print).
- Stracke, C. M. (2016). Is Open Education a revolution or are MOOCs only marketing instruments? Online Proceedings of the Open Education Global Conference 2016. Washington: OEC.

All also online available at: <http://www.opening-up.education>

Further References

- Stracke, C. M. (2016). Openness for learning quality and change by Open Education in theory and practice - Overview, history, innovations and policies: How can Open Learning, OER and MOOCs achieve impact for earners, organizations and in society? In T. Amiel (Ed.), *Utopias and Dystopias in Education*. Sao Paulo: UNICAMP. [in print]
- Stracke, C. M. (2016). MOOCs are dead! - Open Education and the Quality of Online Courses Towards a Common Quality Reference Framework. In *EDEN Proceedings*. Bucharest, Hungary: European Distance and E-Learning Network. pp. 215-221.
- Stracke, C. M. (2015). The Need to Change Education towards Open Learning. In C. M. Stracke & T. Shamarina-Heidenreich (Eds.), *The Need for Change in Education: Openness as Default?*. Berlin: Logos. pp. 11-23.

All also online available at: <http://www.opening-up.education>

Further References

- Stracke, C. M. (2014). How Innovations and Competence Development support Quality in Lifelong Learning. *The International Journal for Quality and Innovation (INNOQUAL)*, Vol. 2 (3). pp. 35-44.
- Stracke, C. M. (2014). Evaluation Framework EFI for Measuring the Impact of Learning, Education and Training. 华东师范大学学报(自然科学版) *Journal of East China Normal University*. Vol. 2014 (2). Shanghai: ECNU. pp. 1-12.
[DOI: 10.3969/j. ISSN 1000-5641. 2012.02.012]
- Stracke, C. M. (2014). The Concept of Open Learning for Opening Up Education. In C. M. Stracke et al. (Eds.), *Changing the Trajectory: Quality for Opening up Education*. Berlin: Logos. pp. 15-24.

All also online available at: <http://www.opening-up.education>

Further References

- Stracke, C. M. (2013). Open Learning: The Concept for Modernizing School Education and Lifelong Learning through the Combination of Learning Innovations and Quality. In C. M. Stracke (Ed.), *Learning Innovations and Quality: The Future of Digital Resources*. Berlin: Logos. pp. 15-28.
- Stracke, C. M. (2013). The Evaluation Framework for Impact Assessment. In *Proceedings of 6th International Conference of Education, Research and Innovations 2013 [= ICERI 2013]*. Madrid: IATED. pp. 4654-4663 [ISBN: 978-84-616-3847-5].
- Stracke, C. M. et al. (2013). Open School Learning. A vision to improve European schools towards 2030 – using the results of the Open Discovery Space project. In *OPEN EDUCATION 2030. JRC-IPTS Call for Vision Papers. Part II: School Education*. Sevilla: JRC. pp. 99-104.

All also online available at: <http://www.opening-up.education>

Further References

- Stracke, Christian M. (2012): "Learning Innovations and Learning Quality: Relations, Interdependences, and Future"; in: Stracke, Christian M. (ed.) (2012): *The Future of Learning Innovations and Learning Quality. How do they fit together?* Brussels: Gito. p. 13-25.
- Stracke, Christian M. (2012): "Competences and skills for learning-outcome orientation: Competence development, modelling, and standards for human resources development, education and training"; in: 华东师范大学学报(自然科学版) *Journal of East China Normal University*. Vol. 2012 (2). Shanghai: ECNU. p. 115-130.
- Stracke, Christian M. (2011): "Competence and Skills Modelling for European HR and Policies"; in: Stracke, Chr. M. (ed.): *Competence Modelling for Human Resources Development and European Policies. Bridging Business, Education and Training*. Brussels: Gito. p. 12-37.

All also online available at: <http://www.opening-up.education>

Further References

- Stracke, Christian M. (2011): "Competences and Skills in the Digital Age: Competence Development, Modelling, and Standards for Human Resources Development"; in: *Proceedings of the International Conference on Metadata and Semantics Research Conference (MTSR 2011)*, Berlin/ Heidelberg: Springer. p. 34-46.
- Stracke, Christian M. (2011): "Competence Modelling for Innovations and Quality Development in E-Learning: Towards learning outcome orientation by competence models"; in: *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunication 2011 [= ED-MEDIA 2011]*; Chesapeake, VA: AACE. p. 1885-1894.
- Stracke, Christian M. (2010): "Quality development and standards in learning, education, and training: adaptation model and guidelines for implementations"; in: *Информатизация образования и науки [= Информике (Informika), ISSN 2073-7572]*; Vol. 7 (3), 2010. Moscow (Russian Federation), S.136-146.
- All also online available at: <http://www.opening-up.education>

Further References

Stracke, Christian M. (2010): "The Benefits and Future of Standards: Metadata and beyond"; in: *Proceedings of the International Conference on Metadata and Semantics Research Conference (MTSR 2010)*. Berlin/ Heidelberg: Springer. p. 354-361.

Stracke, Christian M. (2010): "Quality and Standards in Learning, Education, and Training: The Adaptation Model IDEA for the Introduction of Quality Development"; in: *Proceedings of the International Conference on the Past and Future of e-Learning Standards*. Tokyo (Japan). p. 26-36.

Stracke, Christian M. (2007): *Quality Standards for Quality Development in e-Learning: Adoption, Implementation and Adaptation of ISO/IEC 19796-1*. Essen: eLC / Q.E.D.

Stracke, Christian M. (2006): "Process-oriented Quality Management", in: Ehlers, U.-D./ Pawlowski, J. M. (Eds.): *Handbook on Quality and Standardisation in E-Learning*. Berlin: Springer. p. 79-96.

All also online available at: <http://www.opening-up.education>

Towards Open Learning

**Let us Opening up Learning,
Education and Training for ALL!**



Let us cooperate!



christian.stracke@ou.nl



@ChrMStracke

www.opening-up.education

Let us connect!



© Sabine Dertinger

www.opening-up.education

Thank you! Questions?

Welten Institute
Research Centre for Learning, Teaching and Technology

Open Universiteit
welten-institute.org

