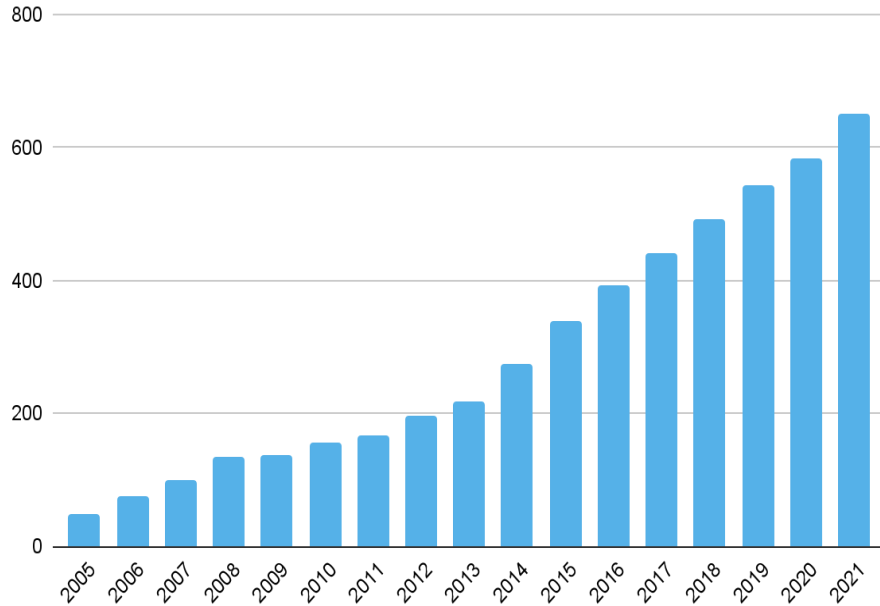# INTRODUCTION TO 1EdTech

Promoting open standards in Europe

IMS GLOBAL

IMS = EFFECTIVE COLLABORATION

IMS Member Growth 2005-2021

- **730+** member organizations headquartered in **25** different countries
- **7,000+** member representatives in the IMS community
- **150+** leading higher education institutions, state/national systems, and education associations
- **160+** leading K-12 districts and state/government agencies
- **440+** edtech solutions and corporate learning providers

IMS IS CHANGING

In 2022 we become 1EdTech

You will gradually see the 1EdTech name and styling rolled out.
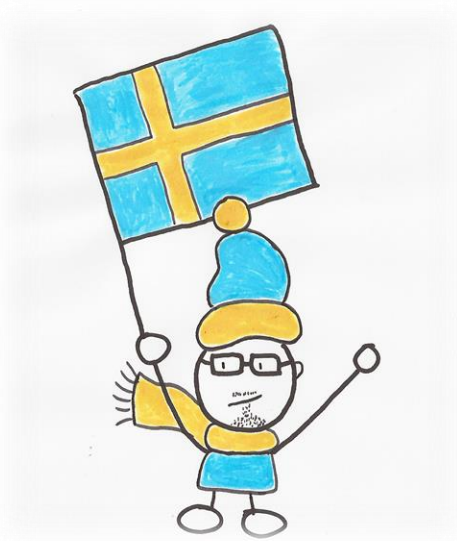Underlying it are the same IMS standards and values.

Four strategic imperatives:

- Accelerate best-in-class, safe digital learning experiences

- Enable personalized learner journeys

- Improve student success, retention, and outcomes

- Boost achievement, opportunity, and employment

IMS 1EdTech IN EUROPE

Meet the team

- Gill Ferrell, Program Director, France

- Markus Gylling, Solutions Architect, Sweden

- Colin Smythe, Chief Architect, UK

- Phil Nicholls, Chief Software Architect, UK

- Wietze de Vries represents
  SUNET on the IMS Europe Board

IMS 1EdTech EUROPEAN MEMBERS

A selection to show the diversity of our membership

Cambridge Assessment

The Open University

Università Bocconi MILANO

EUNIS EUROPEAN UNIVERSITY INFORMATION SYSTEMS

SURF

Jisc

UOC Universitat Oberta de Catalunya

UNIVERSITEIT VAN AMSTERDAM

Ladok

iqc Italian Quality

tao

Sikt Norwegian Agency for Shared Services in Education and Research

Open Badge Factory

D2L DESIRE2LEARN

Dienst Uitvoering Onderwijs Ministerie van Onderwijs, Cultuur en Wetenschap

UMEÅ UNIVERSITET

SUNET

Norwegian Directorate for Education and Training

City & Guilds A City & Guilds Group Business

Cornelsen

Imperial College London

its learning

Erasmus ERASMUS UNIVERSITEIT ROTTERDAM

moodle ™

Click4Europe

FeedbackFruits

inspera

ILIAS The Open Source Learning Management System

WHY HAVE A EUROPEAN PRESENCE?

Our European community supports a unique set of needs

The EU is the world's largest economy and the world's largest trading bloc.

But, as an edtech market - it's complicated!

- Lots of cross-border collaboration
- National differences how education is governed and managed
- Many languages
- Different pedagogies
- National laws that sit alongside Europe-wide laws
- Procurement can be different to other parts of the world
- Focus on public values

EUROPEAN ACTIVITIES

Our main activities include:

- Bringing together users and suppliers of edtech from across the European Community

- Input to the development of global standards to ensure they meet European needs

- Promoting the adoption of IMS edtech standards

- Undertaking liaison and horizon scanning to help the edtech world identify and respond to emerging developments in European education

- Acting as a central point of knowledge about EU regulation and processes and country specific requirements

- Creating supported profiles of IMS standards where needed to meet national requirements

- Helping suppliers understand which standards are relevant and how to apply them in Europe from procurement through to implementation

- Working collaboratively to solve problems, fix issues and ensure the European edtech ecosystem continues to innovate and enhance learning
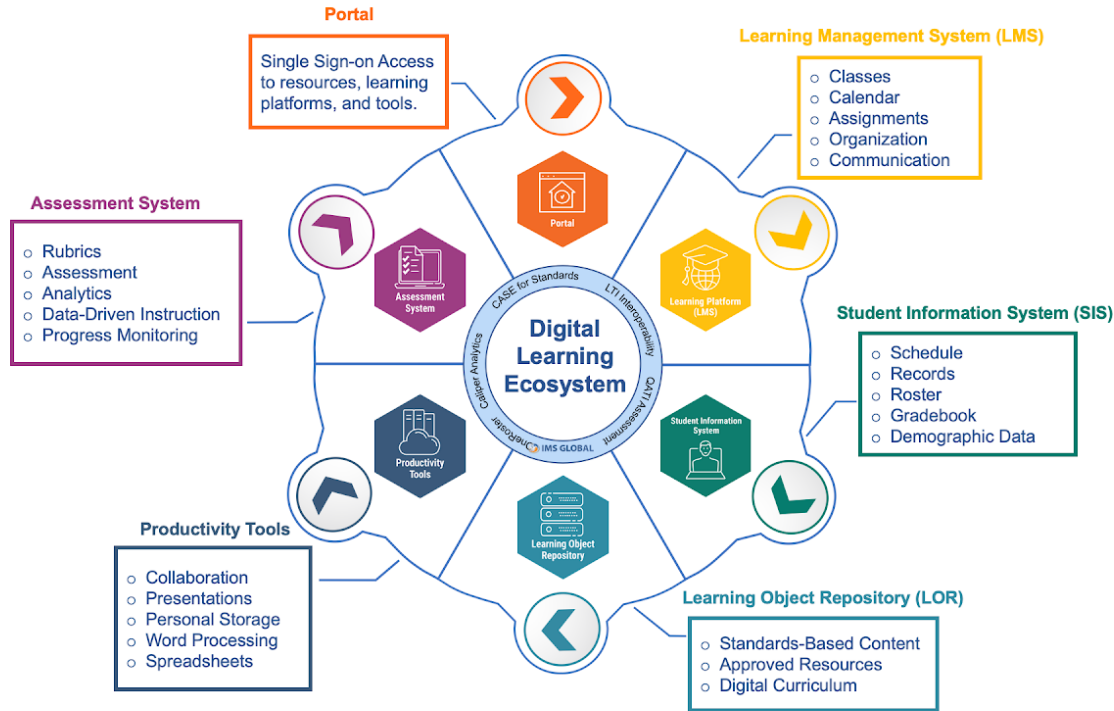
ABOUT IMS STANDARDS

WHY USE OPEN STANDARDS?

Better learning through better learning technology

- Spend less time and resource on integrations
- Comply with European requirements
- Be confident your systems can integrate Europe-wide and globally
- Avoid vendor lock-in
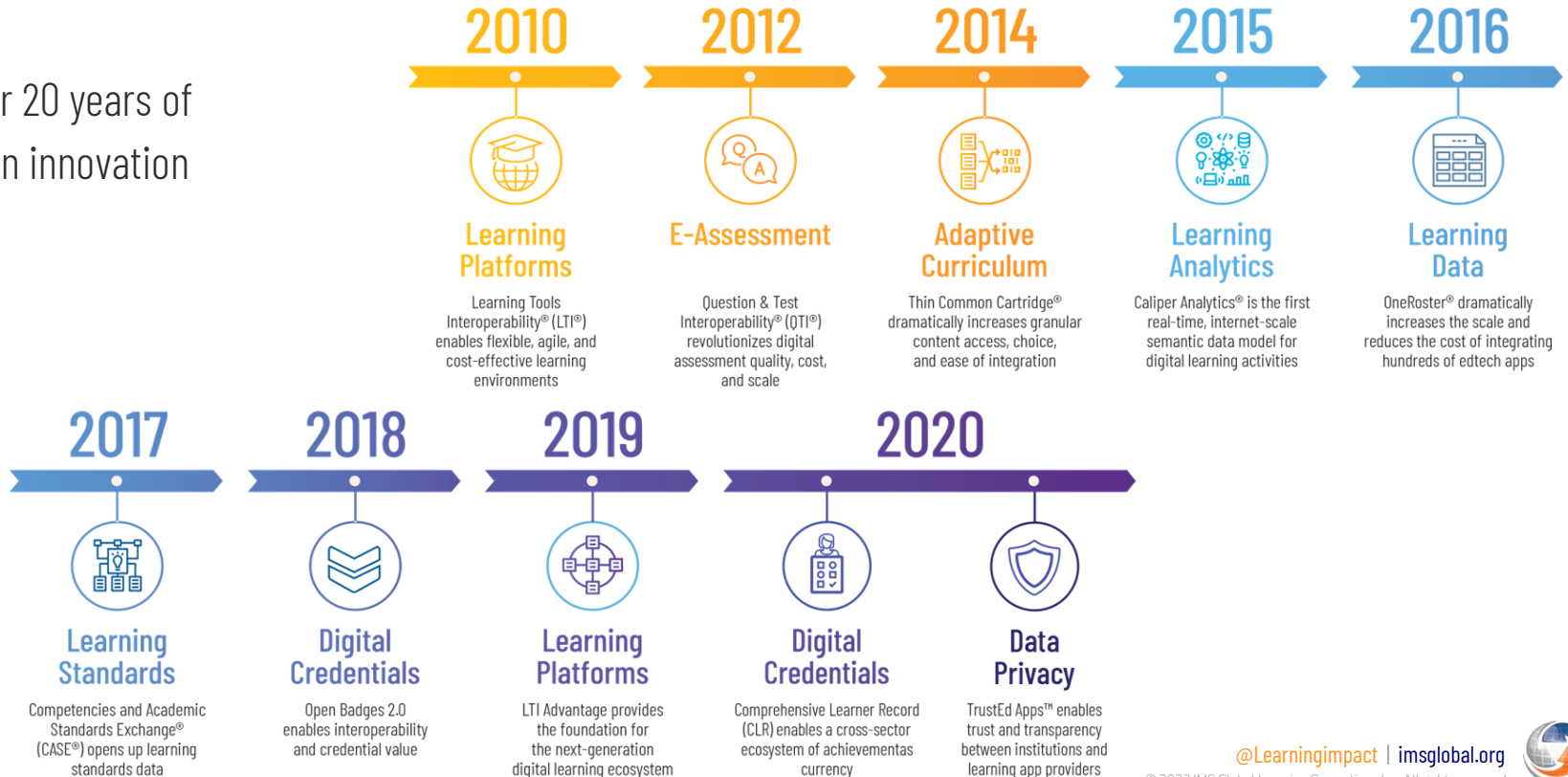- An approach that is consistent, open and repeatable

THE STANDARDS ECOSYSTEM

Portal

Single Sign-on Access to resources, learning platforms, and tools.

Learning Management System (LMS)
- Classes
- Calendar
- Assignments
- Organization
- Communication

Assessment System
- Rubrics
- Assessment
- Analytics
- Data-Driven Instruction
- Progress Monitoring

Student Information System (SIS)
- Schedule
- Records
- Roster
- Gradebook
- Demographic Data

Digital Learning Ecosystem

CASE for Standards
LTI Interoperability
Caliper Analytics
QTI Assessment
OneRoster
IMS GLOBAL

Portal
Assessment System
Learning Platform (LMS)
Productivity Tools
Student Information System
Learning Object Repository

Productivity Tools
- Collaboration
- Presentations
- Personal Storage
- Word Processing
- Spreadsheets

Learning Object Repository (LOR)
- Standards-Based Content
- Approved Resources
- Digital Curriculum

IMS STANDARDS HAVE CHANGED EDTECH FOREVER

Over 20 years of open innovation

2010
Learning Platforms

Learning Tools Interoperability® (LTI®) enables flexible, agile, and cost-effective learning environments

2012
E-Assessment

Question & Test Interoperability® (QTI®) revolutionizes digital assessment quality, cost, and scale

2014
Adaptive Curriculum

Thin Common Cartridge® dramatically increases granular content access, choice, and ease of integration

2015
Learning Analytics

Caliper Analytics® is the first real-time, internet-scale semantic data model for digital learning activities

2016
Learning Data

OneRoster® dramatically increases the scale and reduces the cost of integrating hundreds of edtech apps

2017
Learning Standards

Competencies and Academic Standards Exchange® (CASE®) opens up learning standards data

2018
Digital Credentials

Open Badges 2.0 enables interoperability and credential value

2019
Learning Platforms

LTI Advantage provides the foundation for the next-generation digital learning ecosystem

2020
Digital Credentials

Comprehensive Learner Record (CLR) enables a cross-sector ecosystem of achievementas currency

Data Privacy

TrustEd Apps™ enables trust and transparency between institutions and learning app providers

Learning Platforms, Apps, and Tools

Provide a foundation for better faculty and student experiences

The most effective way to support next-generation teaching and learning is through scalable, seamless, and secure integration of all digital content, learning tools, and assessment products into your digital learning environment.

- Learning Tools Interoperability® (LTI®)
- LTI Advantage
- LTI Resource Search
- OneRoster®
- Proctoring Services
- TrustEd Apps™ and Data Privacy

Learning Data & Analytics

Help students succeed and institutions improve with a scalable foundation for actionable data on student learning

Inform student success strategies, institutional academic decisions, and instructional design with clickstream learning data from all your digital resources—available in real-time and viewable using any dashboard.

- Caliper Analytics®
- Edu-API
- Learning Information Services
- LTI Insights
- OneRoster®
- TrustEd Apps™ and Data Privacy

Digital Credentials

Support competency-based models and connect educational credentials with the full scope of learning achievements and experiences

Digital credentials are reshaping the delivery of education and professional learning by enabling lifelong learner-control of evidence-based knowledge, skills, and achievements to respond to today's education and job market needs.

- Badge Connect™
- Competencies and Academic Standards Exchange® (CASE®)
- Comprehensive Learner Record (CLR)
- Open Badges

Adaptive Digital Curriculum

Get the right resource to the right student at the right time

Facilitate more innovative instructional practices and allow for greater choice and flexibility in digital resources by packaging and streamlining the management of learning content from different sources.

- AccessForAll®
- Competencies and Academic Standards Exchange® (CASE®)
- Common Cartridge®
- EPUB for Education
- LTI Resource Search
- OpenVideo

Integrated Assessment

Scale and connect assessment to learning for greater student success and educational outcomes

Amplify teaching and learning with effective interventions and continuous improvement through high-quality innovative digital assessment that is accessible, adaptive, and safeguarded for integrity.

- Accessible Portable Item Protocol® (APIP®)
- Computer Adaptive Testing
- Proctoring Services
- Question and Test Interoperability® (QTI®)

STANDARDS IN PRACTICE

LTI – Learning Tools Interoperability

THERE'S AN APP FOR EVERYTHING THESE DAYS

Learners use many different tools and resources

Offering a rich set of learning activities and resources isn't always simple:

- Students and staff have to get used to many different tools

- Data is held in many places

- Security is an issue

- Point-to-point integration is complex and expensive
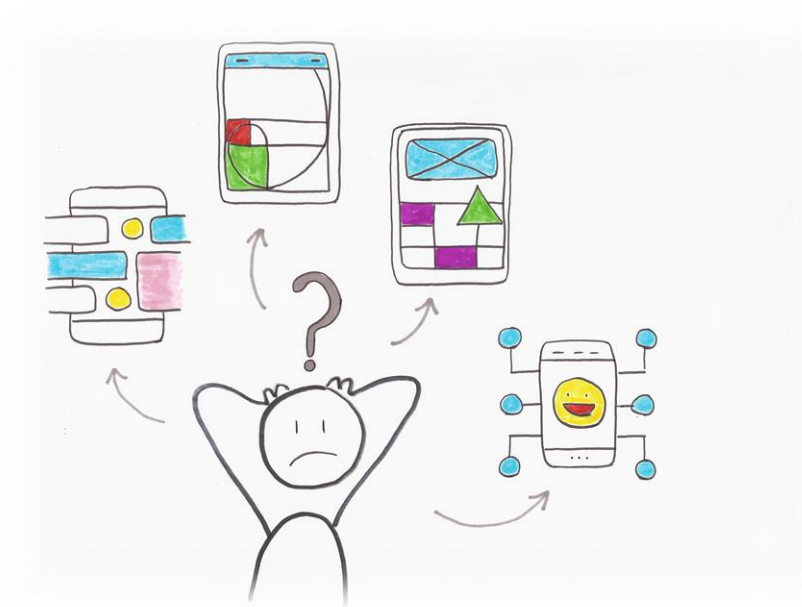
LEARNING TOOLS INTEGRATION (LTI)

LTI – rich learning experiences made simple

- LTI gives access to multiple tools and resources without leaving the core learning environment

- Single sign on (via institutional ID) gives user access to everything appropriate to their course and role

- All major learning platforms are certified LTI compliant
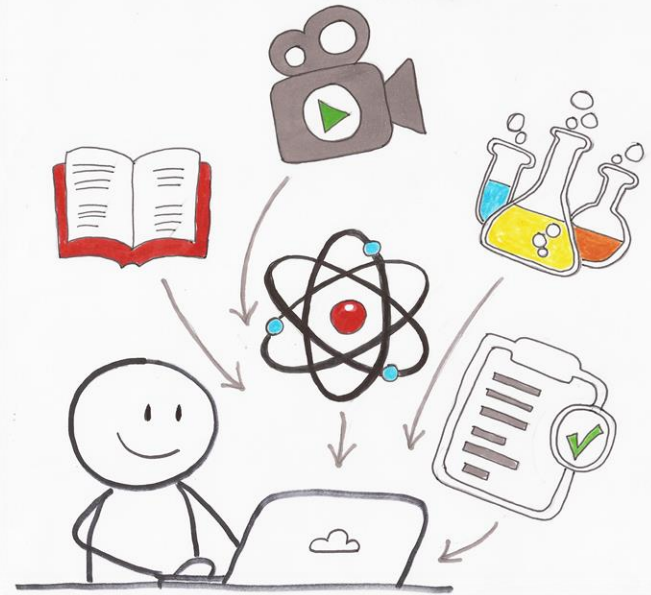
STAYING SAFE WITH LTI

LTI offers state-of-the-art security

LTI 1.3 uses the most modern security protocols:

- Students and staff use their institutional single-sign-on

- User-friendly security means better security

WHAT'S NEW IN LTI ADVANTAGE?

LTI 1.3 has three new components

Together they make up LTI Advantage:

- **Deep Linking** allows you to open tools and resources in your own learning environment

- **Names and roles** provides secure authentication:authorization using single sign on

- **Assignments and grades** allows the application to send marks or feedback to the learning environment

Introductory video: https://www.youtube.com/watch?v=T7SdXED6tsQ

LTI WORKING GROUPS

Our community continues to innovate

- European LTI group meets monthly to share practice and produce resources to help the European community

- Project groups e.g. Spanish LTI group

- Global group enhances the standard and addresses issues e.g. cookies

OTHER STANDARDS

UNLOCKING THE SIS WITH EDU-API

Sweden leading proof-of-concept implementation

Unlocking student data in the SIS is one of the most difficult interoperability issues. EDU-API will address this

- European group has worked in parallel with global working group

- EDU-API data model will inform the core data model for all future standards

- Asynchronous 'pub-sub' version developed to meet Swedish needs

- LADOK leading the first EDU-API implementation

- Valuable for European University Alliances

- OO-API on a convergence path with EDU-API
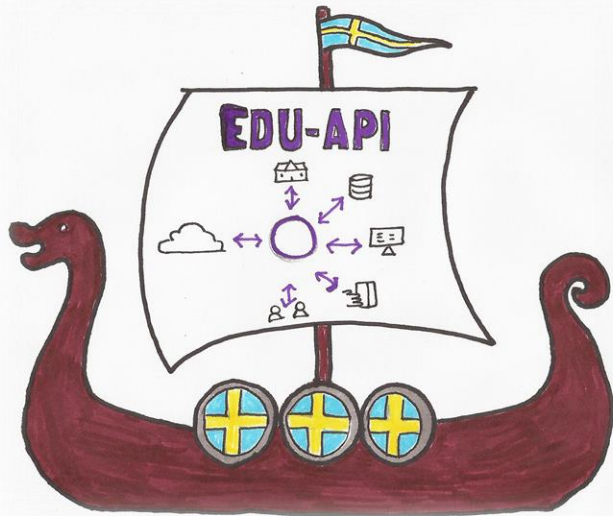
ONE ROSTER FOR NORWAY

Making standards work in your context

- OneRoster is the standard that permits exchange of information about which students are enrolled in which courses

- It enables access to resources, grades and feedback

- Norway has a project to replace an outdated national standard with OneRoster

- We are working on a 'profile' to meet Norway specific requirements

- Norway will benefit from a global standard, supported by 1EdTech yet fully suited to national needs
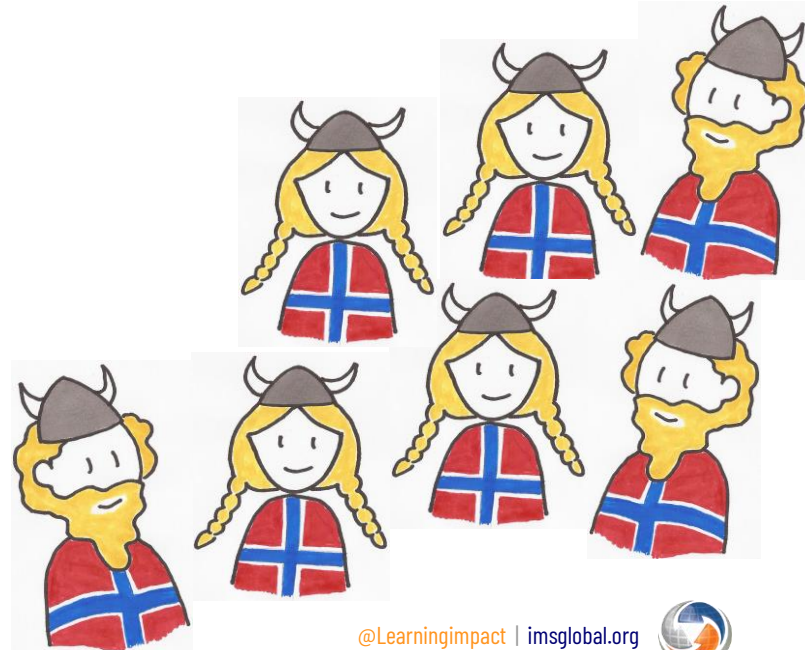
DIGITAL CREDENTIALS

Recognition of learning for the modern world

- Verifiable academic credentials for student mobility

- Digital badges for a richer view of skills and achievements

- Micro-credentials and European degrees

- Compatibility with Europass

STANDARDS IN YOUR UNIVERSITY

WHY USE CERTIFIED PRODUCTS?

Certification is your guarantee of compliance

- Save time and money on integrations
- Improve the user experience for learners, teachers and support staff
- Avoid vendor lock in
- Choose tools to fit your pedagogy and processes knowing they work together
- Apply best practice in procurement
- Future-proof your ecosystem

Request certification as part of your procurement process.

Find certified products via the product directory: https://site.imsglobal.org/certifications

IMS GLOBAL®

CERTIFIED

Current Registrations:
imscert.org

WHY SHOULD A UNIVERSITY JOIN THE COMMUNITY?

Membership brings added value

- Save time and money on integrations via access to our conformance and testing tools
- Access to training, events and resources
- Continuous staff development
- Bespoke consultancy
- Influence standards development
- Influence product development
- Keep up to date with technology trends and market insights
- Learn from other centers of excellence
- Demonstrate leadership

EUROPEAN PUBLIC VALUES

Open standards allow us to create the ecosystem we choose

Open standards level the playing field:

- Open-source products and start-ups can thrive alongside global corporates

- Standards help us maintain security and privacy

- Decisions are made by the 1EdTech community: 1 member = 1 vote

- Standards should feature in all public procurement

STANDARDS FIRST

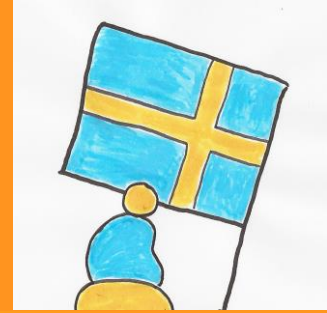Open standards connect learners to the edtech experiences they deserve.

Sign the pledge:
https://www.imsglobal.org/standardsfirst

THANK YOU SUNET

Contact us

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