



Interoperability Academy Workshop

Leuven, 11 December 2019

EUROPEAN COMMISSION

DIGIT D2 – Interoperability Unit

Project Officers:

Georges Lobo

Victoria Kalogirou

TRASYS INTERNATIONAL

Project team:

Johan Clemente

Edouard Dumonceau

Barry Kruger

Katarina Manojlovic

Ludovic Mayot

Cristina Ivan

ISA²

Interoperability Academy

ISA² action 2019.01





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1. Welcome Note

2. Policy context

3. Interoperability Academy action and its inception phase

4. Main outcomes

5. Vision for the future

6. Questions for discussion

7. Stay in touch!



Explain

- Context
- Objectives



Present

- The main outcomes
- Vision for the future



Discuss and validate

- Catalogue of Educational Training resources
- Categorisation
- Learner profiles
- Learning paths



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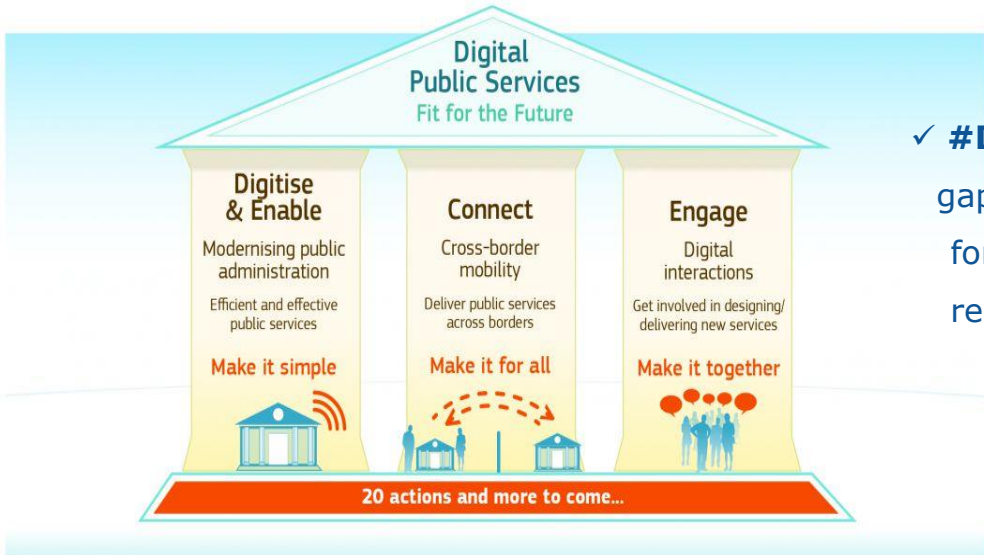
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Policy context

eGovernment Action Plan 2016-2020
Accelerating the digital transformation of Government



eGovernment Action Plan 2016-2020 -> Digital Single Market

✓ **#DIGITAL SKILLS EU:** To tackle the digital skills gap, the Commission offers comprehensive support for building up the digital skills needed to support reskilling and upskilling in Europe for a successful digital transformation.



✓ **Interoperability Academy** as a mean to develop advanced digital skills among Public servants in Europe.

"The industrial revolution of our time is digital. ... As companies aim to scale up across the Single Market, public e-services should also meet today's needs: be digital, open and cross-border by design."





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Minimise the digital skills gap and train civil servants by providing specialised and targeted online learning and training programmes

Objectives

- ✓ Increase awareness on IOP and ISA² solutions, focusing on educational approaches
- ✓ Support regional and local governments in the implementation of IOP (alignment with EIF)
- ✓ Develop digital skills in the area of interoperability
- ✓ Propose a comprehensive cursus and different learning paths according to the user status
- ✓ To develop/manage an eLearning platform

- ✓ New ISA² action
- ✓ Started 2019



Envisaged outcomes

- ✓ E-learning courses with a variety of techniques (e.g. audio and video recordings, presentations, documents, webinars, quizzes, surveys, games, discussion groups etc.)
- ✓ A Learning Management System platform based on Open Source and open standards
- ✓ Organisation of schools, seminars & training sessions
- ✓ A certificate of attendance to the successful participants



Paving the way for building an Interoperability (IOP) Academy

Key facts

- ✓ Project started in August 2019
- ✓ Duration: 5 months
- ✓ Objective: to build the foundation for the IOP Academy



Scope

- ✓ Creating a categorised catalogue of educational resources produced so far by the ISA/ISA² programmes
- ✓ Development of learning paths according to different personas
- ✓ Development of a curriculum of the IOP Academy
- ✓ Performing a State-of-the-art analysis of eLearning platforms and establishing requirements for the IOP Academy
- ✓ Proposing an initial roadmap for the IOP Academy until 2022
- ✓ Establishing collaboration with similar digital skills initiatives



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In this inception phase of the action, the following elements were created:





All educational resources produced so far by the ISA and ISA² programmes are grouped in one catalogue on Joinup

Key facts

- ✓ More than 200 learning materials were collected and organised according to customised categorisation
- ✓ User friendly, available at a click and free of charge on Joinup
- ✓ Grouped by actions and according to a level of difficulty

Title: [Webinar: "Mastering Joinup to your advantage"](#)

[Presentation](#)

Material characteristics:

- **Level of specialisation:** Intermediate
- **Interaction:** Web-learning
- **Learning activities:** Lecture
- **Material type:** Video and PPT presentation
- **Target Audience:** Broad
- **Teaching medium:** Digital
- **Time of publication:** 2016-2020 (ISA²)

Description:

Training has 5 objectives:

1. Understand the logic & purpose of the EIF to support the design & delivery of interoperable public services;
2. Be aware of EIF's purpose & previous EU initiatives supporting interoperable digital public services. Objective;
3. Be familiar with the main components and logic of the EIF Conceptual Model;
4. Have a clear understanding, from the outset, of the main interoperability concepts and EIF terminology;
5. Understand how each EIF component promotes interoperability.

<https://joinup.ec.europa.eu/solution/interoperability-academy/interoperability-academy-catalogue-educational-training-resources>



All educational resources are organised according to customised categorisation

(Sub) Categories	1	2	3	4	5	6	7	8	9
1. Knowledge transfer									
1.1. Interaction	Face-to-face	Blended learning	Distance/online learning	Web-learning	Self-learning				
1.2. Learning activity	Lecture/Seminar	Workshop	Webinar	Job Training	Coaching	Group Learning	Practice		
1.3. Material type	Books	Papers/Publications	Manuals/Tutorials	Grey literature	Poster/Leaflet	PTT Presentation	Online Course	Video	Livestream
2. Level of specialisation	Basic	Intermediate	Advanced						
3. Target audience	General public	Broad	Specific						
4. Teaching medium	Analogue	Digital							
5. Time of publication	2010-2015 (ISA)	2016-2020 (ISA ²)							

Categorisation

- ✓ Is compatible with the latest forms of educational resources
- ✓ Takes into account the context and the characteristics of these learning materials



The Interoperability Academy needs to be interoperable, sustainable and standards compliant

Standards used

In developing the Learner Profiles, the following established standards as a baseline reference:

- ✓ European e-Competence Framework (e-CF),
- ✓ CEN CWA 16458-1 European ICT Professionals Role Profiles,
- ✓ ESCO (Skills, Competences, Qualifications and Occupations) classification
- ✓ DigiComp,
- ✓ ISA and JRC user- and learner-centricity work.



Learner canvases

Learner canvases were developed based on:

- ✓ Best practice from established standards.
- ✓ Standardised template that can be used to develop role-based learner profiles across a variety of sectors and disciplines.
- ✓ Linked to role specifications to provide continuity and provide potential for mapping at a later stage.
- ✓ Clearly defined indicators covering professional, role-based, motivational and personal aspects.
- ✓ Provides basis for developing objectives- and outcomes-focused learning pathways.

Learner Canvas



Occupation:

**MAPPING TO ESCO AND
CWA 16458-1**

SUMMARY DESCRIPTION

Accountable for:

MAPPING TO CWA 16458-1

Responsible for:

Tasks

**MAPPING TO ESCO AND
CWA 16458-1**

E-CF Competencies

MAPPING TO e-CF AND EQF

Challenges

PERSONA RELATED INFO

Knowledge

MAPPING TO ESCO

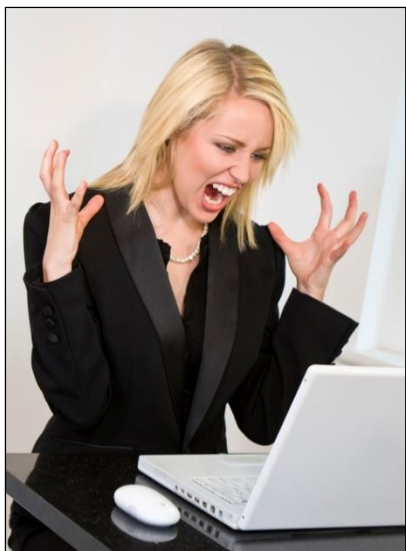
ESCO URI

LINK TO ESCO RECORD

Age profile:
Role-type:
Motivation:

**PERSONA
RELATED
INFO**

Qualifications



Occupation: Project Manager

Defines, implements and manages projects from conception to final delivery. Responsible for achieving optimal results, conforming to standards for quality, safety and sustainability and complying with defined scope, performance, costs, and schedule. Deploys agile practices where applicable.

Accountable for:

- Project Plan
- Validated Solution

Responsible for:

- Solution Documentation

Tasks

- Organize, coordinate and lead the project team
- Maintain stakeholder engagement and communication
- Supervise project progress
- Coordinate, record and ensure quality compliance
- Circulate and distribute information from the project owner
- Ensure the project helps to support the organisation's wider goals
- Comply with budgets and delivery times
- Update the project according to changing circumstances

E-CF Competencies

- | | |
|---|---------|
| ○ A.4. Product/Service Planning | Level 4 |
| ○ E.2. Project and Portfolio Management | Level 4 |
| ○ E.3. Risk Management | Level 3 |
| ○ E.4. Relationship management | Level 3 |
| ○ E.7. Business change management | Level 3 |

Age profile: 25-40

Role-type: professional, managerial

Motivation: focus on attaining higher PM certification, PDP guided by professional/industry requirements

Qualifications

Graduate: academic discipline
Occupational: project management certification (Prince II, PMP, ECQA)

Learner Canvas

Challenges

- Workload and multiple conflicting deadlines
- Resourcing and staff management
- Lack of specialist technical/IT knowledge and skills
- Planning/understanding technical risk
- Stakeholder engagement
- Lack of formal/reliable communication channels
- Scope creep/scope changes
- Lack of management engagement

Knowledge

- project management methodology
- change management methodology
- budget management tools
- project management tools
- corporate social responsibility
- quality standards
- risk management
- corporate social responsibility

ESCO URI

<http://data.europa.eu/esco/occupation/bea99fea-0383-4c63-b944-70d4799de2c5>

Main outcomes

Learner profiles and learning paths



CIO

"I want to know about industry best practice as it happens. I need to know what compliance issues my organisation faces."

KNOWLEDGE



Systems architect

"I want to know how interoperability standards will affect systems design. I need to be able to design interoperable frameworks."

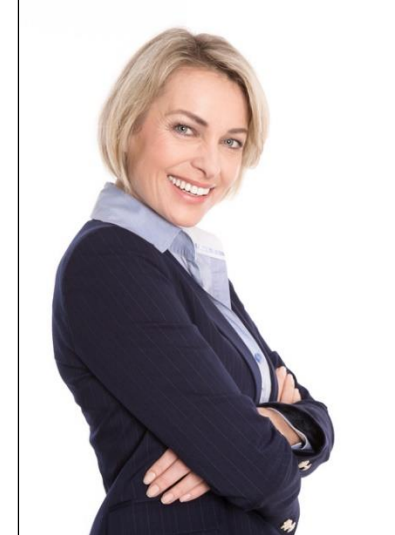
SKILL



Developer

"I need to be able to implement interoperable code solutions. I need to understand the relevant standards and specifications."

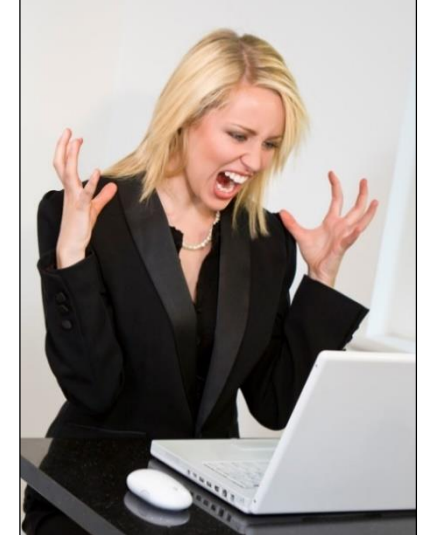
ISA²



Policy manager

"I want to know how interoperability affects my organisational vision. I need to know the policy requirements."

KNOWLEDGE



Project manager

"I want to know the technology priorities for project success. I need to be able to speak the language."

SKILL



Learning paths developed for 5 different learner profiles

The Interoperability Academy can expect to be used by a variety of user-types, with varying degrees of technical knowledge, and a variety of professional backgrounds.

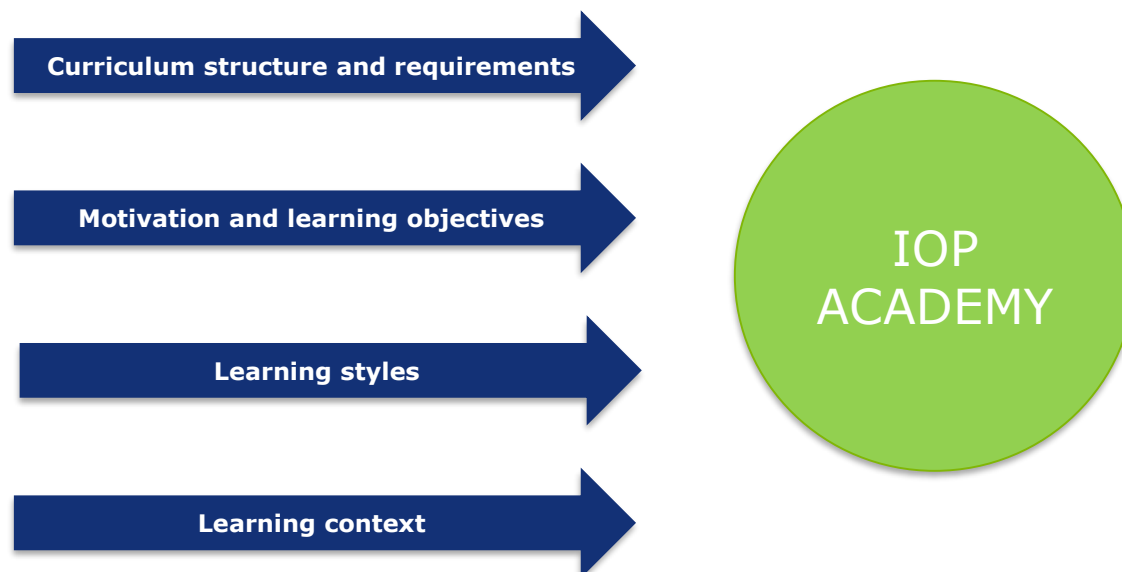
Users will range from professional implementers, with a high degree of IT skills, to senior managers with generalist, strategic needs, to business professionals (project managers, policy managers) who may not be expected to have a high degree of technical knowledge.

The delivery of meaningful learning experiences will therefore need to be modelled on learning paths that are flexible and adaptable, and can be adapted to each learners requirements.



Learning paths developed for 5 different learner profiles

To develop a model that is adaptable to a wide range of requirements, we have looked to a variety of factors:

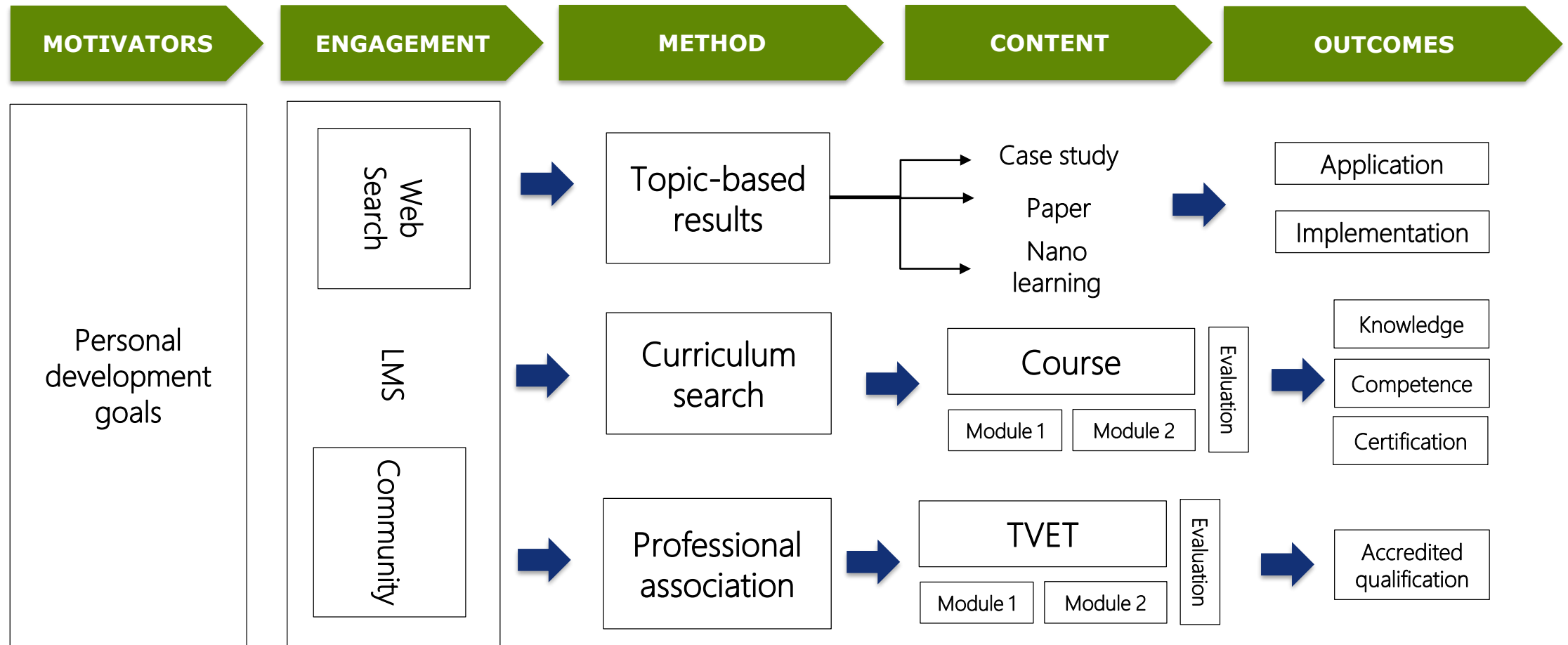


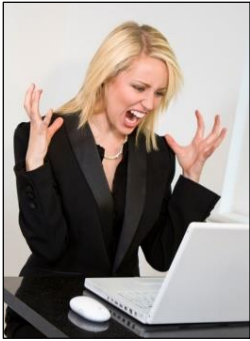
There are three basic paradigms for curriculum design based on learning styles:

- ✓ Subject-Centred
- ✓ Learner-Centred
- ✓ Problem-Centred

Formal, sequenced

Learning path: learner-driven





Role: Project Manager

LEARNING STYLE

Accommodating 'Hands-on' and relies on intuition rather than logic. Use other people's analysis, and prefer to take a practical, experiential approach. They are attracted to new challenges and experiences, and to carrying out plans. Commonly act on 'gut' instinct rather than logical analysis.

Learning map

MOTIVATORS

WORK CONTEXT

I want to know the technology priorities for project success.

LEARNING GOALS

I need to understand 'interoperability'.
I need to be able to speak the language.

PRIOR LEARNING

Experienced team worker, project analyst, risk manager.

Knowledge project management methodology, change management, budget management tools, project management tools.

Competencies Product/Service Planning, Project and Portfolio Management, Risk Management, Relationship management.

LMS ENGAGEMENT

ACADEMY LIBRARY / KNOWLEDGE BASE

Case study
Research

ACADEMY CURRICULUM

Formal e-learning
JIT learning and micro

Seeks

Mentoring

ACADEMY COMMUNITIES & FORUMS

TUTORING, MENTORING

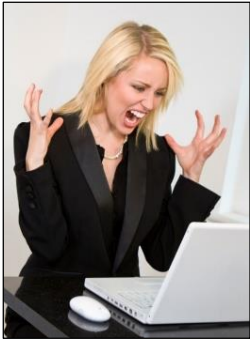
LEARNING OUTCOMES

Knowledge

Successful learning experiences will be evidenced by a wider knowledge of interoperability as a concept, and confidence that the Project Manager can discuss concepts with specialists.

Competencies

The Project Manager will be able to use knowledge and understanding of interoperability to create practical project plans with realistic objectives.



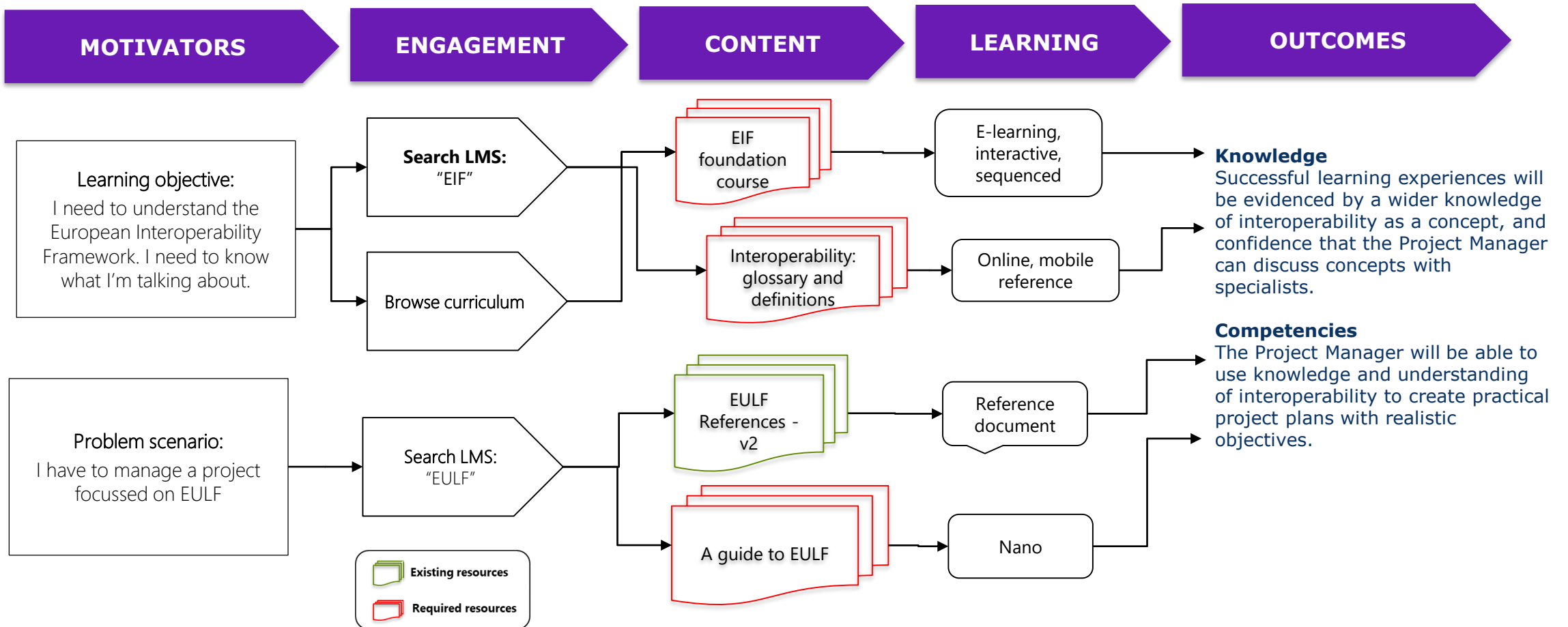
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Learning path

CONTEXT DRIVEN, FORMAL, MICRO

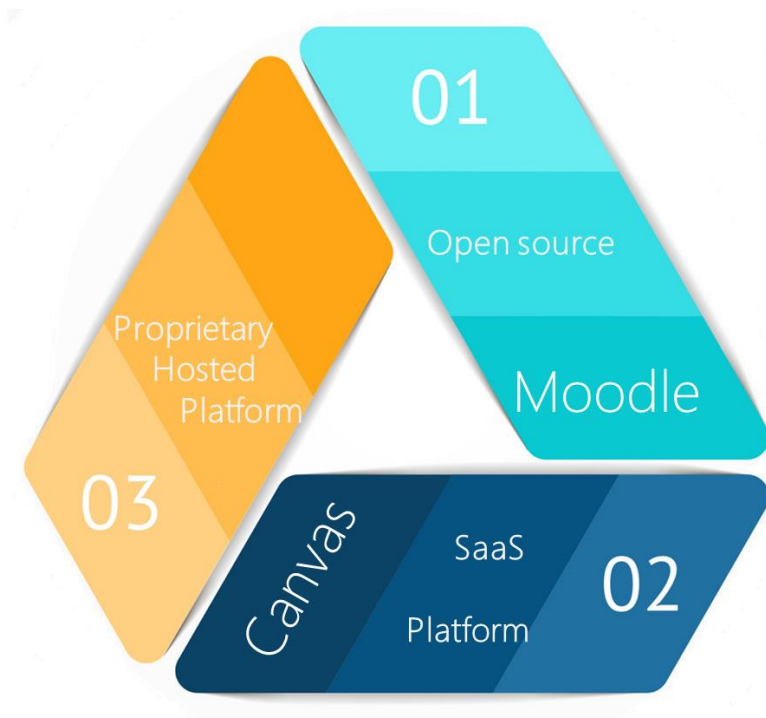




When developing implementation strategy for the Interoperability Academy, the following key market trends were taken into consideration:

- ✓ Open source and open architecture
- ✓ Cloud and SaaS deployment models
- ✓ Open educational resources (OER) & content curation
- ✓ Learning 'on-the-go' – micro- and nano-learning
- ✓ AI & adaptive learning
- ✓ The growth of learning analytics
- ✓ Social learning and gamification

Three representative LMS products were analysed

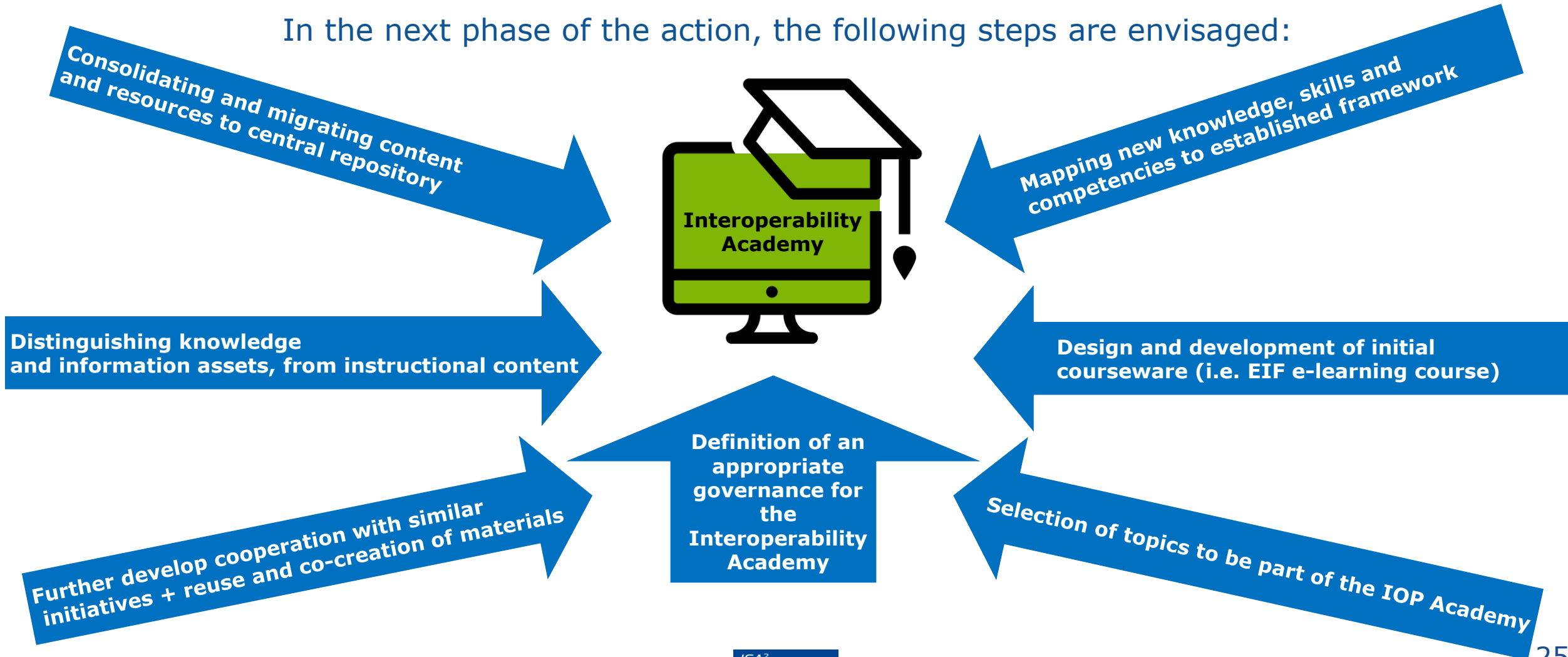




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In the next phase of the action, the following steps are envisaged:





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Today we would like to hear your opinion!

**Catalogue of the
educational
training
resources**

**Categorisation
of educational
training
resources**

? **TRAINING MATERIALS:** What do you think of the catalogue of ISA / ISA² materials? How useful is it and its presentation?

? **TRAINING MODULES:** Is there anything that you think would be useful (i.e. where no training module currently exists)?

? **CATEGORISATION:** Do you find the provided categorisation useful? Would you introduce another category? Reduce some of the existing fields?



Today we would like to hear your opinion!

? **CURRICULUM:** What would you expect from an interoperability curriculum in terms of topics and courses? What are your main points of interest / specialism?

? **LEARNER PROFILES AND LEARNING PATHS:** Can you identify with any of the Learner Profiles or Learning paths? If so – which represents your perspective? If not – what is missing?

? **LMS STANDARDS:** Can you recommend an existing LMS platform, what are its strengths?

**Learning
Paths and
Learner
Profiles**

**Analysis of
the Learning
Management
Systems**



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Stay in Touch!



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Learn more about & exchange with digital skills initiatives around the world!

Provide comments on existing material!

Get informed about relevant events and share yours!

Digital Skills in the public sector

Last update a day ago | 25 Members | 1 Solution | **YOU'RE A MEMBER**

Overview | Members | About

4 News | 1 Discussion | 1 Event

About: all policy domains | advanced search

Collection content: How can this collection be helpful for you? What materials, information and links would you like to see in this collection? eLearning, Interoperability, EU, 1 discussion

ISA² supports Digital Skills (eLearning, Interoperability) | e-Governance Academy (eGA) | UNU - eGOV (eGovernment, ICT) | Webinars on Data Viz! (Data Visualisation, EU Data Viz, EU) | Register now - Webinar 'Guidelines for effective data visualisation' (17/09/2019 event) | Interoperability Academy (solution)

More options: Add custom page, Add solution, Add news, Add discussion, Add document, Add event

Create your own material & ask questions!

Join and/or start discussions with other stakeholders!

Create your solution!



Thank you for your attention!

ISA² programme

You click, we link.

Stay in touch

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 **ISA² Programme**

 **ISA² Programme**



digit-isa2-comm@ec.europa.eu



Run by the Interoperability Unit at DIGIT (European Commission) with 131€M budget, the ISA² programme provides public administrations, businesses and citizens with specifications and standards, software and services to reduce administrative burdens.