



45th AIM Conference

Short Overview from EU KA IE3 Project

Tools and Methodologies

Challenges & Opportunities



45th AIM Conference



Co-funded by the
Erasmus+ Programme
of the European Union



ie³ Consortium members



logo03



BOSCH



Arruti Catenaria

ValueD●

[infotech]



Madrid Network

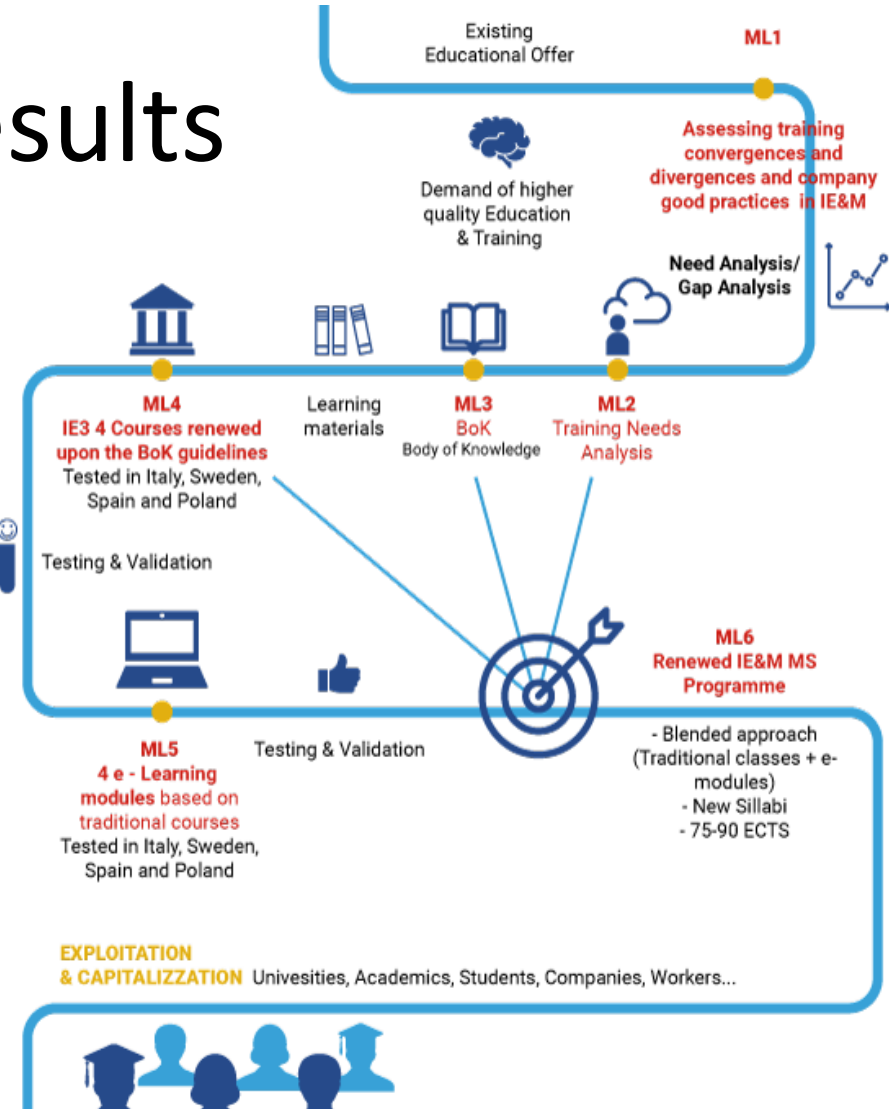
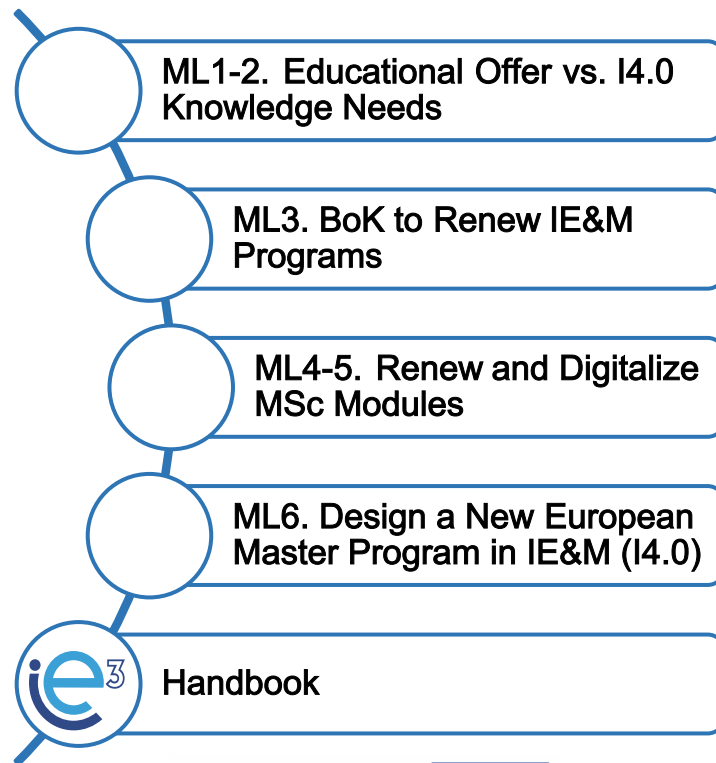
The IE3 project has been funded by the **Knowledge Alliance action of the Erasmus Plus** program with a budget of more than 8 hundred thousand euros for three years+.

It ranked in the top **10% of KA** projects across Europe



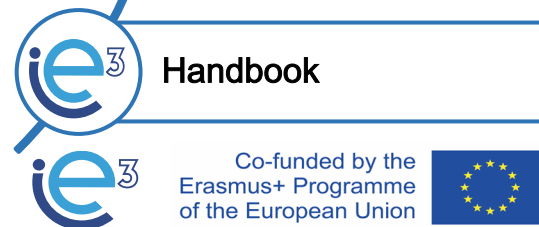
Project Roadmap and Results

45th AIM Conference



ie3.eu/results

Renewed course materials | e-learning modules | IE&M New Master Program | IE3 Handbook

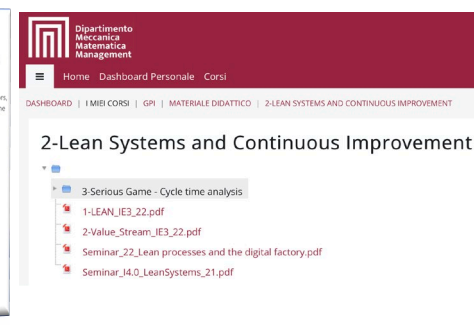


Purpose and overview of the BoK

A - Standards for course renewal in IE&M

B - Guidelines and Use Cases for course renewal

C - Summary of the IE3 Project evidence on knowledge contents, skills, and educational tools





45th AIM Conference

Tools and Methodologies



Co-funded by the
Erasmus+ Programme
of the European Union





New learners have different characteristics we must consider when designing the learning process

45th AIM Conference

Future initiatives will be challenged by concept acquisition, will require 'extra efforts':

** To formulate problems in terms of 'We must do something ...'*

To foster the search & analitic capabilities from learners ...

- *One option will be micro-learning*
- *Driven by questions*
- *Visual learning*
- *Gamification for social learning*

For Gen Z, TikTok Is the New Search Engine

Need to find a restaurant or figure out how to do something? Young people are turning to TikTok to search for answers. Google has noticed.



By **Kalley Huang**

Kalley Huang, a technology reporter in San Francisco, covers youth and technology.

Published Sept. 16, 2022 Updated Sept. 17, 2022

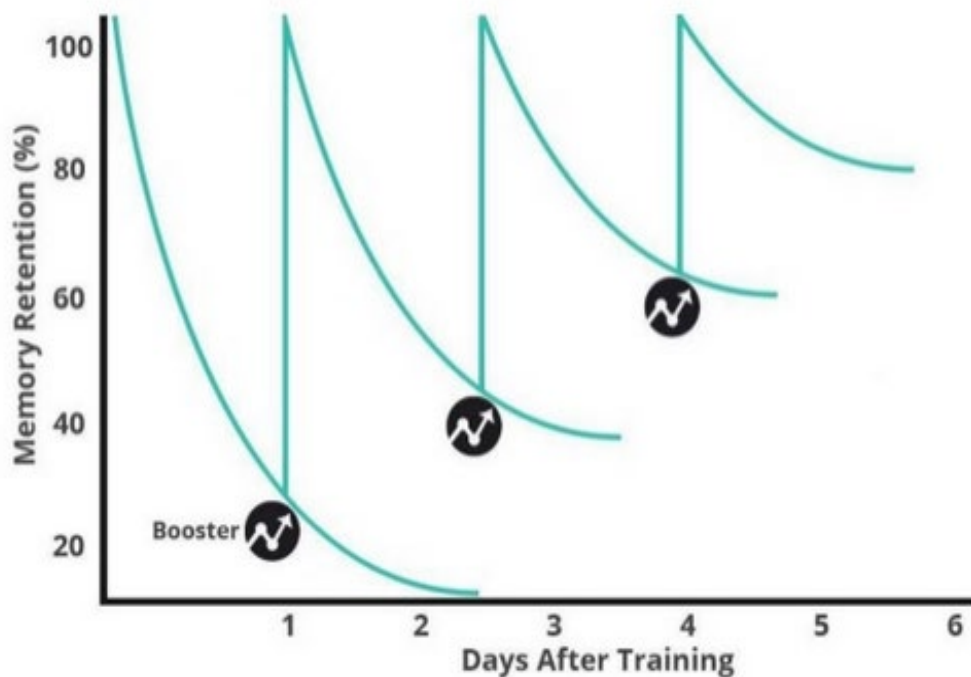
** Still a strategy is needed : Knowledge Graphs?*



New learners have different characteristics we must consider when designing the learning process

45th AIM Conference

New learners are 'digital natives', 'multi-taskers', 'ultralow focused', 'how & why to do it'



GENERATION Z

The Next Generation

1

SOCIAL
Gen Z is naturally social and spend 7.6 hours per day socializing with friends and family.

2

MULTI-TASKERS
Gen Z prefers to work on multiple tasks at the same time. On average, Gen Z will work off of 5 screens at once.

3

ENTREPRENEURS
Gen Z desires independent work environments. 72% of teens want to start their own business someday.

4

EDUCATED
Gen Z is constantly learning. 1 in 2 will have a college education.

5

PHILANTHROPISTS
Gen Z wants to do good in the world. 93% say that an organization's impact on society affects their decision to work there.

6

DIGITAL NATIVES
Gen Z are the first true natives to the digital era. This generation spends 15.4 hours per week on their smartphones.

7

INTERACTIVE
Gen Z likes to interact with people. 34% are most concerned with boosting their people management skills.

8

TECH-SAVVY
Have a question? Google it. 66% say that technology makes them feel that anything is possible.

9

LESS FOCUSED
Gen Z needs continuous updates and stimulation. It's no surprise that this generation has an attention span of 8 seconds.

10

CAUTIOUS
As a result of growing up during the Great Recession, Gen Z tends to be more careful with their expenses. 57% would rather save their money than spend.



New learners have different characteristics we must consider when designing the learning process

45th AIM Conference

B Knowledge Transfer Methodology - GAP

MANUFACTURING SERVICE

Web-based - asynchronous

Face-to-Face

Web-based - synchronous

More 'Asynchronous'

As it is 'Face-to-face'

Less 'Synchronous'

Module 4: Machine Learning & Operations Management
Module 4. ML in Operations management:

Case 2

Stock prediction

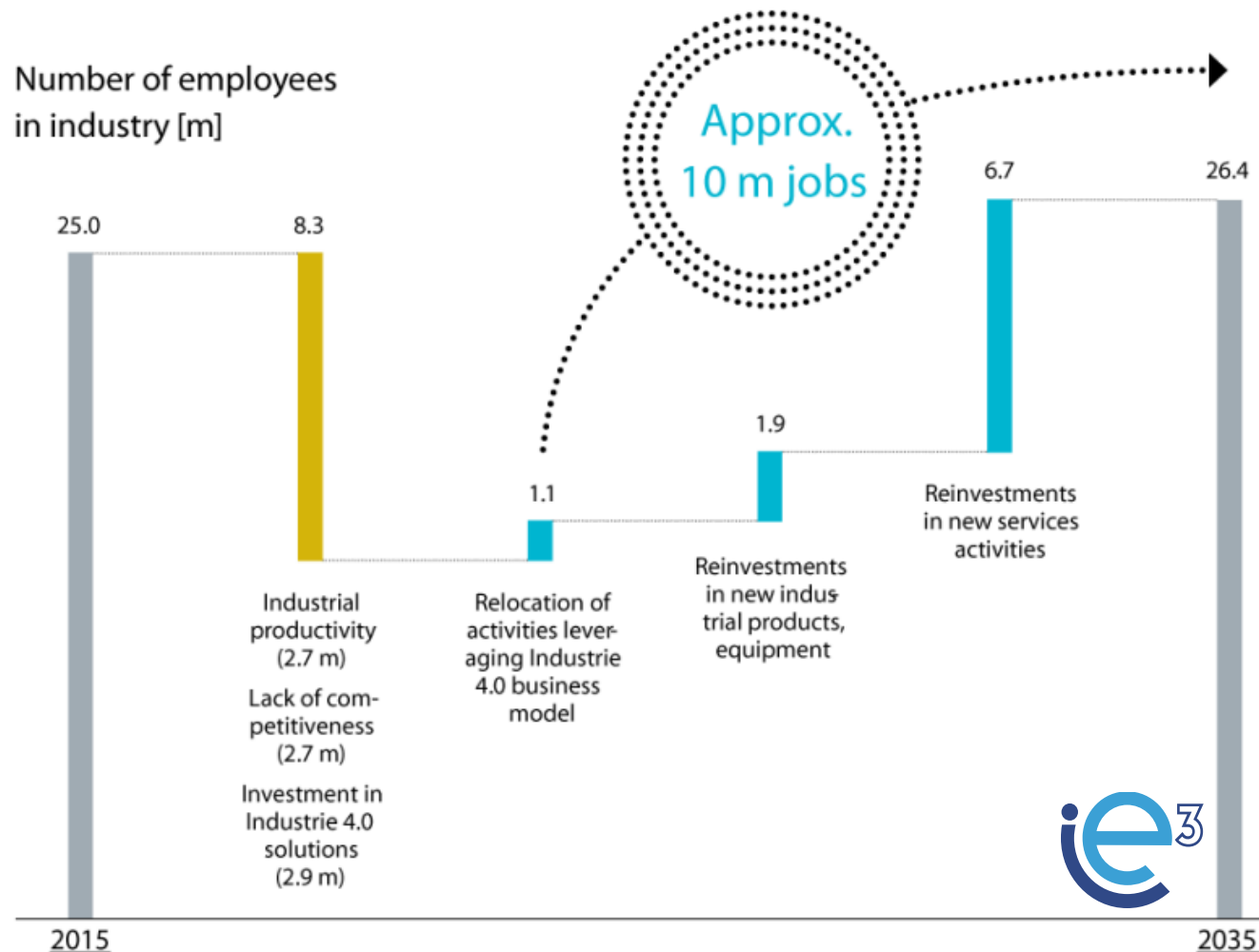


More «problem solving» oriented approach, with less theoretical effort.



Market Trends

45th AIM Conference



- Enormous opportunities for the industry & society. ***People must be at the heart of the change.***
- Change towards complex jobs requires multi-disciplinary skills
- Technological advances largely predictable. ***Social welfare systems will need review to tackle inequality.***
- Ignoring the change or wanting to be a follower may not allow business to be maintained. ***Join in and participate or you may never catch up.***



Summary

45th AIM Conference

Several take aways:

- + Cooperation increased trustworthiness and aligned perspectives.
- + Different modules and e-modules helped to identify 'best practices'.
- + Cooperation with Industry was positive at both ends (input & validation).
- + Good methodological tools have been created and are in use now.
- + More initiatives are needed as learners are changing and social context as well.

Now, what else?

The screenshot shows the homepage of the ie3.eu website. At the top, there is a navigation bar with links: HOME, ABOUT, CONSORTIUM, RESULTS (highlighted in blue), NEWS, CONTACT, and a PRIVATE AREA button. Below the navigation bar, there are three main project highlights, each with an icon and text:

- European Educational Offer in the framework of Industry 4.0**: Accompanied by a line graph icon.
- Training Needs Analysis**: Accompanied by an icon of a hand holding a document.
- Body of Knowledge**: Accompanied by an icon of a head with a document inside.

Below these highlights, the URL **ie3.eu/results** is prominently displayed in large black text. At the bottom of the page, there is a blue banner with four white icons and their corresponding labels:

- Renewed course materials**: Icon of a document with a circular arrow.
- e-learning modules**: Icon of a computer monitor with a graduation cap.
- IE&M New Master Program**: Icon of a vertical list of items.
- IE3 Handbook**: Icon of a book.



45th AIM Conference

Challenges & Opportunities



45th AIM Conference

What is the EU promoting on **higher education**?



Micro-credentials

Micro-credentials are qualifications gained through short, transparently-assessed courses or modules.

[Discover micro-credentials](#) →



European Universities initiative

The initiative facilitates the formation of collaboration partnerships between European higher education Institutions.

[Explore European Universities](#) →



European Student Card initiative

Helping students and higher education institutions on Erasmus+ exchanges by simplifying admin and enhancing digitalisation.

[Read about the Student Card](#) →



Quality higher education

High-quality, relevant higher education equips students with the knowledge and transversal skills required to succeed after graduation.

[Learn about quality higher education](#) →



Inclusive and connected higher education

Higher education must be inclusive and its institutions connected to their communities.

[Discover connected higher education](#) →



Innovation in education

Fostering innovation in higher education is a key priority for the EU and its Member States.

[Explore innovation in higher education](#) →



Summary, Challenges & Opportunities

45th AIM Conference

4. Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) – (26.2.2021)

Proposals in Education:

+ Global alliance of Univ. European Universities Initiative. Strategic priority 4: Reinforcing European Higher Education



EUROPEAN UNIVERSITIES

A key pillar of the European Education Area

More than **430** higher education institutions

Up to **EUR 14.4 Million** from Erasmus+ per alliance for 4 years

50 alliances

35 countries, including all 27 Member States

Teaming up with almost **1700** associated partners, including higher education institutions from Bologna Process countries

+ Does your University belong to an alliance already? (<https://shorturl.at/fuVY1>)

+ Are you involved?



Summary, Challenges & Opportunities

45th AIM Conference

Proposals in Education:

+ Master Level.

Erasmus Mundus Action: **2 independent lots** → EM Joint Masters
→ FM Design Measures

+ Double degree agreements for 'long term' mobility agreements.

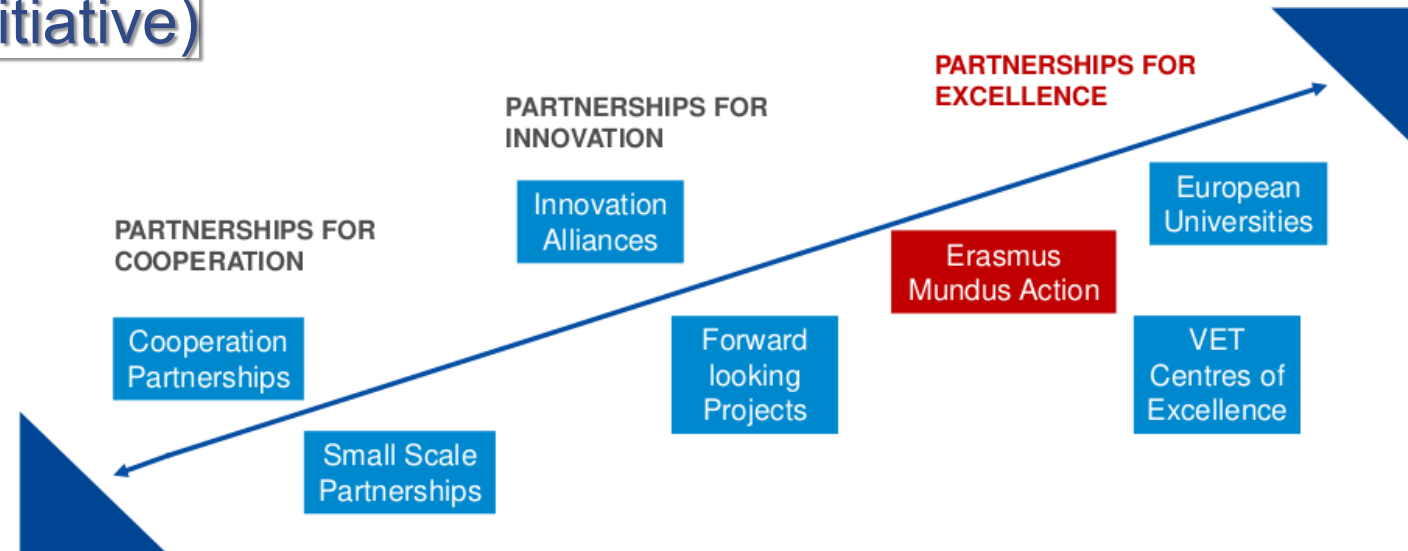
+ **Join Degree shared by several universities (and/or companies)**

based on semester or half semester mobility schemas.

Partial funding from EU (KA2) when including voluntary educ & training.

+ Micro-credentials (shared initiative)

Delivered by an international consortium of HEIs from different countries **worldwide & other educational and/or non educational partners**





Summary, Challenges & Opportunities

45th AIM Conference

Proposals in Research:

- + Doctoral Level (MSCA: ITN). [Doctoral Networks, Industrial or Joint Doctorates] Hard to reach but full cost for 540 pm.
- + Cofund [Call 50% of funding]
- + Double degree agreements with cotutelle agreement.
- + Postdoctoral actions are also considered.
- + Participation in research calls (Horizon-Europe, RFCS, etc.)

Complementary actions:

- + Cost Actions: interdisciplinary research network that brings researchers and innovators together to investigate a topic of their choice for 4 years. They are typically made up of researchers from academia, SMEs, public institutions and other relevant organisations or interested parties.



RoadMap

45th AIM Conference

Review the actions proposed in Ancona:

- + Several proposals were raised by that time. *Some progress?*
- + Does it make sense to continue them?

If some AIM partners are leading a proposal preparation ...

- + When they think additional contribution (companies & academia from different countries) can be positive,
- + It would be great if they show them up ...



45th AIM Conference

Thank you for your participation