EXAM4.0

THE EXCELLENT ADVANCED MANUFACTURING 4.0

EXAM4.0 and Learning transformations

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11 - 14 OCT
2021

19th EUROPEAN WEEK of REGIONS and CITIES

Together for Recovery #EURegionsWeek

October 14th 2021

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EXAM4.0 and Learning transformations

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Challenges from industry in Advanced Manufacturing sector

I4.0 is transforming industry and society. Megatrens always mention :
Demographic shifts and Changes of human roles in manufacturing

Lack of young talent
Needs of upskilling (aged) active people

Never ever in mankind: Lifelong learning becomes a must
If you are 35 years and older, you were in 2000 15 year or older and you did had Internet at school and did not get any digital training at school
Now we have Internet of Things (IoT), connecting everything with everything and as a results an industrial/business/societal challenge – smart industry/Fourth Ind. Rev.
Within 10 years artificial intelligence and quantum computing will have impact and we can't predict the industrial consequences, but lifelong learning becomes a must.

KEY MESSAGE 1 **Education & LLL in more essential than ever before**

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Impact of I4.0 on learning.

Jobs transformations and impact on people. Do we really know how i4.0 will impact on people?
- Impact of technology on processes can be foreseen in terms of efficiency, productivity, sutainability and so on
- But …. What do people really need? What are their motivations for upskilling?

Industry 5.0, Human centred/resilient/suistainable organizations:
- Industry4.0 transformation will success if human and social factor are considered core elements

In VET education (initial and LLL programs) to what extend are we taking into account Learners Needs?
Traditional training systems do not meet Learner's expectations
Traditional upskilling programs are getting obsolete

A **human-centric approach** puts core human needs and interests at the heart of the production process rather than taking emergent technology as the starting point and examining its potential for increasing efficiency. A **socio-centric approach** recognises that technologies are part of systems that are organised to further societal and ecological values

KEY MESSAGE 2   Training provision must be transformed

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Challenges in Learning programs

Needs, motivations and learning mechanism are changing. New demands come from learners /industry

- Short courses.
- Multiple delivery formats: work based learning, Virtual learning. Gamification. Video learnings. Blended learning, e learnings….
- Learning on demand: Ubiquous learning/Mobile learning. Training can be "consumed" 24x7x365.
- Adaptable learning path
- Learners are protagonists of their upskilling journey.
    - Support tools: Guidance (new jobs, jobs to disappear, most demanded skills..)
    - Self assessment tools for individuals
- Address hard and soft skills
- Modular trainings. Flexible careers.
- Accreditation systems.
- Micro credentials
- Career guidance

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Trends in learning transformations (LLL)

LEARN ON THE FLOW OF WORK
On-the-job performance support

"On the Job"

UPSKILLING RESKILLIING PATHS
Supporting career transitions

"From Job to Job"

ACTIVE LEARNING

CONTRIBUTIONS of EXAM4.0   CLF on UPSKLLING and job transitions

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LEARN ON THE FLOW OF WORK

On-the-job performance support

"On the Job"

Digital workplace

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Self-consumption according to needs

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Video learning

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Distributed content creation

ACTIVE LEARNING

Challenges/problem based learning

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Learning factories

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Virtualized enviroments

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Gamified environments

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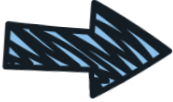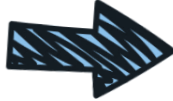
CONCLUSIONS

- Digital transformation have a direct impact on people → • Education & LLL in more essential than ever before

- Industry 4.0 technologies impact on learning processes
- Motivations and learning necessities are changing → • Training provision must be transformed
- New training delivery mechanisms

- Talent provision is a multifaceted challenge → • Regional skills ecosystems
- Learning Communities

THANK YOU

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