

3IF.EU

Description of the initiative

Description

manufacturing SMEs, large manufacturing companies, technology providers, robotics, cybersecurity, condition based maintenance, Industrial IoT, data analytics, AI for manufacturing

Status

 Ongoing

Date

1st Jan, 2014 / 1st Jan, 2024

Link to the initiative

 www.3if.eu

Industrial FIT4FoF areas

- Cybersecurity
- Data analytic
- Human machine interaction
- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Communication and dissemination activities
- Event, forum or network
- Grants and scholarships
- Policies and regulation
- Training / Education
- advisory, best practices, technical implementation, demonstrators, fieldlabs

Extent of the initiative

 European

Funded by

Private funding

Target group

- Both
- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Medical-technological sector
- Metal
- Technological
- Wood, Paper, Circular

Main outcomes

668 companies guided, 60+ successfully supported transformations

Best practice


condition based maintenance, on site fieldlab, cloud, cybersecurity, IIoT

3if.eu

Company description

digital manufacturing transformation support

Address

 Weldadigheidsstraat 14, 3000 Leuven. Belgium


Website

 <https://www.3if.eu>

Email

 fit4fof@3if.eu

Type of entity

 Association

21ST CENTURY WOMEN TECHNOLOGISTS

Description of the initiative

Description

"21st century Women Technologists" is an initiative promoted by the Gradiant's Department of Communication and Marketing and HR to make visible the relevant role of women in the technological field in Galicia. A way to show the ability to innovate in technology from our region and inspire future generations of women to be trained in STEM disciplines. Taking the March 8, 2018 as a starting point, the initiative focused on the publication of interviews with the team of technologists and women working in technology at Gradiant to show their vision of the sector, their motivations to dedicate themselves to the world of ICT and its possibilities for professional growth. The initiative lasted from March to December 2018, and will continue throughout 2019."

Status

Ongoing

Date

1st Mar, 2018 / 31st Dec, 2018

Link to the initiative

<https://www.gradiant.org/en/blog/women-in-technology/>

Industrial FIT4FoF areas

- Additive manufacturing
- Cybersecurity
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Communication activities to inspire future generations of women to be trained in STEM disciplines

Extent of the initiative

European

Funded by

Private funding

Target group

- Both

Sector(s) targeted by the initiative

- Technological

Main outcomes

"Results achieved: - 22 interviews - 8,014 visits (16% of the total content of the Gradiant blog) - 81 messages in rrss"

Best practice

There is a lack of women in the technology sector. The recipes to balance this situation go through encouraging early technical careers among women. "Woman Technologists of the 21st century" initiative is proposed as a way to give visibility to successful women in the field of science and technology in which girls and young people can find references, as a way to promote technological vocations and banish gender stereotypes in this sector.

GRADIANT - Galician Research and Development Center in Advanced Telecommunications

Company description

GRADIANT is a private non-profit Research and Technology Organization based in Vigo, Spain. GRADIANT'S focus is on applied research and technology transfer of ICT to industry and society. With over 100 industrial clients in portfolio and a turnover of EUR 5.2 million in 2018, GRADIANT currently runs a large number of applied research and innovation projects, most of them under contract with industrial players. GRADIANT operates since mid-2008 and staffs ca. 100 engineers as of Q1 2019. GRADIANT's ICT research and innovation activity spreads over three pillars: Connectivity, Security and Intelligence.

Address

Fonte das Abelleiras, s/n · Edificio CITEXVI · 36310 Vigo, Pontevedra. Spain

Website

<https://www.gradiant.org/>

Email

gradiant@gradiant.org

Type of entity

Technological centre

ACACES - SUMMER SCHOOL ON ADVANCED COMPUTER ARCHITECTURE AND COMPILATION FOR HIGH-PERFORMANCE AND EMBEDDED SYSTEMS

Description of the initiative

Description

The ACACES Summer School is a week-long summer school for computer architects and tool builders working in the field of high performance computer architecture and compilation for computing systems. The school aims at the dissemination of advanced scientific knowledge and the promotion of international contacts among scientists from academia and industry. A distinguishing feature of this summer school is its broad scope ranging from low level technological issues to advanced compilation techniques. In the design of modern computer systems one has to be knowledgeable about architecture as well as about the quality of the code, and how to improve it. This summer school offers the ideal mix of the two worlds – both at the entry level and at the most advanced level.

Status

Ongoing

Date

23rd Jul, 2006

Industrial FIT4FoF areas

- Cybersecurity
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Technological

Main outcomes

There have been 15 editions of the ACACES summer school, which now attracts around 230 participants per year. As well as excellent academic content delivered by professors who are world famous in their fields, the summer school now provides classes devoted to entrepreneurship and technology transfer, helping to ensure that technology makes it out of the lab and onto the market.

Best practice

One of the main lessons learned through ACACES is that bringing together senior researchers and students in a relaxed atmosphere with plenty of time for networking and asking questions results in high levels of satisfaction and fruitful collaborations, including professors being able to recruit students directly. Summer school participants have gone on to undertake research projects and even found businesses together. Providing grants and promoting the participation of underrepresented groups - such as female researchers and researchers from eastern European countries - is a way of helping to improve the diversity of training activities such as the ACACES summer school.

HiPEAC - High Performance and Embedded Architecture and Compilation

Company description

Since 2004, the HiPEAC (High Performance and Embedded Architecture and Compilation) project has provided a hub for European researchers and industry representatives in computing systems; today, its network, the biggest of its kind in the world, numbers almost 2,000 specialists. It provides a platform for cross-disciplinary research collaboration, brings together representatives from research, industry and policy, and helps prepare the next generation of world-class computer scientists. HiPEAC organizes four networking events per year: the HiPEAC conference, two Computing Systems Weeks and a summer school. It also produces the biennial HiPEAC Vision, an influential roadmap which informs European technology research policy areas. In addition, the project offers training, support for academic and industry placements, help in finding excellent computing candidates, careers activities and dissemination support.

Address

UGent-ELIS, Technologiepark-Zwijnaarde 15, 9052 Gent, BELGIUM. Belgium

Website

<https://www.hipeac.net/>

Email

info@hipeac.net

Type of entity

EU project


AIKOMPASS-DIGITAL

Description of the initiative

Description

The aim of the AiKomPass-Digital project is to uncover informal digital competences of employees mostly hidden to companies. Therefore it extends the existing AiKomPass by a framework for digital competences. Until now the AiKomPass can be used to gather information from workwise but also private activities. In this logic it is easy to use because it asks for concrete activities the employee carries out on the job or in private. It can result in a impression of the employee's informal competences and a more profound way of planning a qualification strategy.

Status

 Completed

Date

1st Sep, 2019 / 31st Aug, 2021

Link to the initiative

 <https://www.agenturq.de/aikompass-digital/>

Industrial FIT4FoF areas

- Human machine interaction

Main focus of initiatives

- Training / Education

Extent of the initiative

 Regional

Funded by

Regional government funding

Target group

- Both
- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Automotive
- Iron and steel industry
- Metal
- Vocational education and training

Best practice

The existing AiKomPass without a framework for digital competences already can be tested on www.aikompass.de

AgenturQ - Agentur zur Förderung der beruflichen Weiterbildung in der Metall- und Elektroindustrie Baden-Württemberg e.V.

Company description

By establishing AgenturQ, a joint, equally financed institution, the two social partners, IG Metall and Südwestmetall, have shown their mutual interest in strengthening the culture of continuing professional development for companies in the metal and electrical industry in Baden-Württemberg. Within these companies and in works councils AgenturQ wants to strengthen awareness of the fact that continuing professional development is a necessary part of an ever-changing work environment and that they should be looking to make the most of their employees' qualification potential.

Address

 Lindenspürstraße 32, 70176 Stuttgart, Germany

Website

 <http://www.agenturq.de>

Email

 fleck@agenturq.de

Type of entity

 Vocational education and training (VET)

ALLIANZ INDUSTRIE 4.0 BADEN-WÜRTTEMBERG

Description of the initiative

Description

A network created to build the future of industry. **Allianz Industrie 4.0 Baden-Württemberg** is a network founded and sponsored by the Ministry of Economic Affairs, Labour and Housing Baden-Württemberg. Our aim is to pool technological expertise in production as well as IT and communications to provide support for medium-sized industrial companies in their shift towards Industry 4.0. The coordination office is located at the VDMA Baden-Württemberg. Together with the network partners from companies, chambers of commerce, associations, institutes of applied research and social partners, we are striving to make Baden-Württemberg one of the world's leading regions for Industrie 4.0 technologies. To achieve this goal, we provide support and reinforcement through a comprehensive package of activities for direct collaboration among all players. Small- and medium-sized companies play a key role and are the focus of our work. The close integration of the various involved industries and fields of technology allows them to benefit from the Allianz to a particularly high degree.

Status

Ongoing

Date

1st Jan, 2015 / 31st Dec, 2019

Link to the initiative

<https://www.i40-bw.de/en/>

Industrial FIT4FoF areas

- Cybersecurity
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Communication and dissemination activities
- Event, forum or network
- Training / Education

Extent of the initiative

Regional

Funded by

Regional government funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Automotive
- Capital goods
- Medical-technological sector
- Technological

Coordination Office "Allianz Industrie 4.0 Baden-Württemberg"/VDMA

Company description

With more than 3,200 members, VDMA is the largest network organization for mechanical engineering in Europe. The association represents the common economic, technological and scientific interests of this diverse industry.

Address

Kronenstraße 3, 70173 Stuttgart, Germany. Germany

Website

<https://www.i40-bw.de/en/>

Email

info@i40-bw.de

Type of entity

Association

AUTOMATION AND DIGITAL TRANSFORMATION IN THE PLASTIC INDUSTRY

Description of the initiative

Description

The focus of the course is centered around the work within the 4 key area's concepts: 1 - TIME TO MARKET - Technology and mind-set, to reduce production time until the customer receives the product. 2 - BIG DATA - Application-options and data collection from production equipment, keywords will be; data-driven machine maintenance, machine learning, production optimization, quality optimization. 3 - INTELLIGENT AUTOMATION - Optimized automation using digital twins, co-operative robots and communication between machines and equipment. 4 - ENERGY OPTIMIZATION - Study of possibilities for using energy to optimize plastic production.

Status

Ongoing

Date

1st May, 2019

Link to the initiative

<https://djhhadsten.dk/videncenter/videncenter-industri-4-0/kurser>

Industrial FIT4FoF areas

- Additive manufacturing
- Data analytic
- Robotics

Main focus of initiatives

- Training / Education

Extent of the initiative

Regional

Funded by

Regional government funding

Target group

- Employees (Operators)
- Unemployed

Sector(s) targeted by the initiative

- Automotive
- Technological

Main outcomes

Control of peripherals for the thermoplastic industry The course, gives the participant basic knowledge of PLC and automation equipment and teaches in programming of subject handling and peripherals used in injection molding, extrusion and thermoforming. The participant gets to know AGV technology, and can initiate and operate more complicated peripherals for thermoplastic industrial manufacture. The participant is aware of the possibilities for automation of a plastic production including application possibilities for robot and cobot technology in thermoplastic production - injection molding, extrusion and thermoforming.

Best practice

After the course, the participant has insight into the digital transformation, the mindset and the basic technologies and opportunities associated with industry 4.0 within the plastic industry. The participant works with Smart factory and Cyber ??physical technologies and systems, targeted at the plastic industry, and on production equipment used in the plastic industry.

Den jyske Haandværkerskole (DjH) (The Technical College of Jutland)

Company description

The TechnicalCollege of Jutland is a technical school located in Hadsten/Denmark. It is a self-governing institution formed in 1928 by a group of employer organizations that wanted a technical school with close relations to the industries.

Address

Ellemosevej 25 8370 Hadsten. Denmark

Website

<https://djhhadsten.dk/>

Email

hbh@djhhadsten.dk

Type of entity

Vocational education and training (VET)

AUTOMATION TECHNICIAN

Description of the initiative

Description

You will learn to find errors, repair and set up automatic machines. You monitor and maintain systems when they are out of service. The work requires knowledge of the latest techniques. Depending on the thesis, you also learn about robotics. As a graduate you can work in the industry, in electronics companies, in the food and process industry as well as on large ships etc.

Status

Ongoing

Date

31st May, 2019

Link to the initiative

<https://www.ug.dk/uddannelser/erhvervsuddannelser/teknologibyggeriogtransport/automatik-og-procesuddannelsen>

Industrial FIT4FoF areas

- Mechatronics/machine automation

Main focus of initiatives

- Training / Education

Extent of the initiative

Regional

Funded by

National government funding

Target group

- Employees (Operators)
- Students
- Unemployed

Sector(s) targeted by the initiative

- Automotive

Main outcomes

At the school you are taught in: Physics, Electronics, Troubleshooting, Hydraulics and pneumatics and Robot Technology. You also need subjects such as English, Mathematics, Entrepreneurship and innovation, as well as Product development, Production and Service and security. As a graduate you can work in the industry, in electronics companies, on large ships etc. You can also become independent. There are good opportunities for getting jobs, this applies to both specialties.

Best practice

Of the approximately 900 newly qualified automation technicians, the largest groups are employed within the armed forces and the police. Almost as many work in the machinery industry as well as with the manufacture of engines, wind turbines and pumps. Also the industries Manufacture of electric motors, wholesale of machines and building installation and repair and installation of machines have created new jobprofiles and recruitments. The jobprofile "Automation technician" in the electrical industry, has primarily given employment in Repair and installation of machinery and equipment, wholesale of machinery and building installation.

EUC-Syd (Business Education Center - South)

Company description

Business Education Center South is one of the Southern Jutland's largest educational institutions, divided into addresses in the cities Aabenraa, Tønder, Haderslev and Sønderborg. Every year, they train and educate approx. 20,000 people and offer about 60 long and short vocational training programs. They have every conceivable facility for their students: from modern teaching rooms, the Open Learning Center (OLC) and state of the art IT systems to professional and modern workshops with leading robotics, and work tools.

Address

Hilmar Finsens Gade 18 - 6400 Sønderborg. Denmark

Website

<https://www.eucsyd.dk/>

Email

lke@eucsyd.dk

Type of entity

Vocational education and training (VET)

CLOSING THE GAP: DIGITAL UPSKILLING IN THE AUTOMOTIVE SECTOR

Description of the initiative

Description

There is a pronounced gap between the skills available in our sector and those that are required as a result of the introduction of new technologies and automation. CEAGA has long been warning of the lack of suitable personnel and applicants with the training and skills needed to face the growth cycle that the sector has been witnessing since 2016, bringing with it major challenges with respect to technology. This problem is particularly evident in the SMEs, the backbone of the Galician economy. The determined commitment to the "factory of the future" by both the public and private sectors clashes with the fact that our education systems are finding it difficult to keep up with the digital revolution.

Status

 Completed

Date

4th Sep, 2017 / 31st May, 2018

Link to the initiative

 <https://www.ceaga.com/en/ceaga-works-to-identify-the-skills-and-abilities-of-worker-4-0/>

Industrial FIT4FoF areas

- Additive manufacturing
- Cybersecurity
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Communication and dissemination activities

Extent of the initiative

 National

Funded by

National government funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Automotive
- Technological

Main outcomes

At the level of the Galician automotive industry:

· Human Resources directors in the companies in the Galician Automotive Industry are applying the competences model and its evaluation tool with satisfactory results; some have requested permission to share them across their group and / or with counterparts in other companies / industries.


· The inputs in to the project have helped to adapt, flesh-out and improve the training offered by CEAGA's Corporate University in the area of Industry 4.0. With a view to the mid and long-term, a working party was created with HR and training directors from companies in the sector

CEAGA

Company description

The Galician Automotive Industry is the primary driver of the economy of Galicia, in the north-west of Spain, with a combined turnover of 8.68 billion euros and over 21,000 direct employees. CEAGA, the Galician Automotive Industry Business Cluster, brings together more than 120 companies in the sector. Their technology centre promotes cooperative projects to improve the competitiveness of the automotive industry in Galicia and has allowed the industry to develop high-value strategic initiatives.


Address

 Avenide Citroën, 3-5, 36210, Vigo. Spain

Website

 www.ceaga.com

Email

 carla.jimenez@ceaga.com

Type of entity

 Cluster

to adapt the UCC's training in the context of Digital Transformation.

· The pilot training programme had an excellent uptake in both the number of applications to participate and the interest shown by other companies to be involved in future initiatives. Furthermore, if the performance of the students as a whole is satisfactory, it is expected that there will be a 100% rate of hiring.

At the regional level: the Galician government has evaluated the project very favourably and is adopting measures based on it in Education and Training and employment departments.

At national level: The advanced robotics programme designed by CEAGA, has been included in the official list of the National Employment Service, opening up the possibility that it may be taught by other entities and in other regions of Spain.

Best practice

Contact the entire ecosystem to identify the best knowledge about this topic.

Bring together the best professionals in work sessions to obtain inputs for the project, improving the final result.

CORE ELEMENTS OF INDUSTRY 4.0

Description of the initiative

Description

Training course - Participants will be familiar with the core elements and basic technologies of Industry 4.0. They understand, how the connection between these core elements and technologies lead to a holistic approach to improve their processes and products. During the whole training, they will perform practical examples by using the MPS@ 203 I4.0, so that there is a direct link to the real production environment

Status

 Completed

Date

7th Apr, 2019 / 30th Nov, 2019

Link to the initiative

 <https://www.festo-didactic.com/ro-ro/training-si-consultant/?fbid=cm8ucm8uNTcwljM1Ljl3LjU4MjY>

Industrial FIT4FoF areas

- Human machine interaction
- Mechatronics/machine automation

Main focus of initiatives

- Training / Education

Extent of the initiative

 Local

Funded by

Private funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Automotive
- Technological

Main outcomes


Participants will be familiar with the core elements and basic technologies of Industry 4.0

Festo S.R.L

Company description

SC Festo S.R.L is the subsidiary of Festo AG & Co in Romania, being established as a Romanian legal entity in 1994 by modifying the representation already founded in 1990

Address

 Str. Sf. Constantin, nr. 17 sector 1
Romania. Romania

Website

 <https://www.festo-didactic.com/ro-ro/>

Email

 traian.stamate@festo.com

Type of entity

 private company

CURSOS DE FORMACIÓN EN ROBÓTICA E ROBÓTICA COLABORATIVA (TRAINING COURSES IN ROBOTICS AND COLLABORATIVE ROBOTICS -COBOTS-)

Description of the initiative

Description

Cursos de Formación en Robótica e Robótica Colaborativa (Training courses in robotics and collaborative robotics -cobots-) The trend of Industry 4.0 requires training of workers in content and capabilities in this concept, the new intelligent industry must be able to anticipate changes and evolve towards smart factory. The lack of knowledge, the perception of technology as something unnecessary or unaffordable causes many companies to delay the moment of analyzing their productive processes and the decision to advance technologically. This action aims to highlight the direct relationship between the modernization of processes and business productivity: improvement of quality, reduction of costs, time and waste, etc. On the other hand, workers often see robotization as a threat to their job when it does not have to be this way: the collaborative robot is an effective and precise tool that facilitates work and minimizes the risks of work accidents. In addition, the management of robotic elements can provide the worker with a versatility that increases their employability in other positions or sectors of economic activity.

Status

Completed

Date

5th Mar, 2018 / 16th Mar, 2018

Link to the initiative

<http://www.igape.es/es/ser-mais-competitivo/asesoramento/item/1463-cursos-de-formacion-dirixidos-a-empresas-para-a-mellora-activa-nos-entornos-persoas-tecnoloxias-innovacion-creativa-formacion-en-robotica-e-robotica-colaborativa>

Industrial FIT4FoF areas

- Robotics

Main focus of initiatives

- Training / Education

Extent of the initiative

Regional

Funded by

European funding

Target group

- Employees (Operators)

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval
- Technological

Main outcomes

The participants achieved knowledge in robots, automation and other technologies Industry 4.0, as well as advances in robotic programming and in security and risk in industrial robotics

Best practice

IGAPE (Galician Institute for Economic Promotion)

Company description

Igape is the Galician regional development agency. Its mission is to support all the activities that contribute to Increase competitiveness of Galician companies through innovation and technological development, attract investment to Galicia, facilitate internationalization, support cooperation with the collective projects of Galician companies.

Address

Complejo Administrativo San Lázaro, s/n
15702 Santiago de Compostela. Spain

Website

<http://www.igape.es/gl/>

Email

fsm@igape.es

Type of entity

Government or public institution



The methodology of the course was based on the fostering of mutual trust in the relationships between peers and the trainer. The students positively valued the evaluation of the attitude: collaboration between classmates, student-teacher interaction, punctuality, personal initiative, respect for the workplace, cleanliness and order. The practical exercises were carried out fostering cooperative work as a team

CYBER SECURITY AT THE SHOPFLOOR

Description of the initiative

Description

IT cyber security for factory floor equipment must be understood by OT (operational technology) people. Using practical exercises participants learn to configure systems as secure as possible. In the mean time they learn to collect IoT data using the OPC-UA standard. The practical workshop is in particular meant for SME whom don't have a large ICT staff. Website is in Dutch, but all (downloaded) material (instructions, slides, source code etc) is open source and in English.

Status

 Completed

Date

1st Feb, 2019 / 31st Dec, 2020

Link to the initiative

 www.smartindustry.nl

Industrial FIT4FoF areas

- Cybersecurity
- Data analytic
- Mechatronics/machine automation

Main focus of initiatives

- Communication and dissemination activities

Extent of the initiative

 National

Funded by

National government funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Metal
- Technological

Main outcomes

SME OT people need to aware of basis IT cyber security aspects as production equipment needs more safety against hack then normal office equipment. - Today 200+ trained people.

Best practice


Workshop with practical experiences of data collection from shopfloor equipment, while being hacked until participants are able to configure the systems as cyber secure as possible.

info@smartindustry.nl (Dutch National Industrie 4.0 program - Smart Industry)

Company description

Cyber security for shopfloor installations using open source hard/soft/toolware (Raspberry Pi) and OPC-UA where participants during exercises are continuously hacked in 6 different ways.

Address

 Smart Industry, p.a. FME, Zilverstraat 69, Zoetermeer. Netherlands

Website

 <https://smartindustry.nl/cyber-security-workshop/>

Email

 egbert-jan.sol@tno.nl

Type of entity

 Association

CYBERSECURITY COURSE

Description of the initiative

Description

The society and the economy are dependent on information and communication technologies. We have witnessed an accelerated development of the information society and a growing reliance on ICT. These technologies are, however, vulnerable, creating social and material risks. If, on the one hand, they bring clear benefits to society, on the other hand, they significantly increase the risks arising from their dependence and the amount of information stored and in circulation. Failure to train countries and companies in specialized security professionals can jeopardize the security of goods and people, in extreme cases the state itself, the robustness of the economy and ultimately the individual freedoms of each citizen. The institution (ISC) 2 estimates that by 2021 there will be more than 1.5 million specialized jobs in this field, which will not be assigned. Therefore, it is an obligation of the educational institutions to initiate training programs that help to meet the demand for future qualified professionals, while generating opportunities for employment and talent development that have a positive impact on their area of influence. Now is the time to start this course: there is a need in the business and industrial sectors that has been highlighted at several meetings and there is a change in the industrial paradigm, the well-known Industry 4.0, which needs a strong investment in information and process security. Taking this into account, the Instituto Politécnico de Bragança (IPB) launched the first edition of the Technical Course in Cybersecurity in September 2018, as one of the first technical courses in Portugal related to this area.

Status

 Ongoing

Date

17th Sep, 2018 / 30th Sep, 2020

Link to the initiative

 <http://www.estig.ipb.pt/index.php/estig/estudar-na-estig/ctesp/ciberseguranca/apresentacao>

Industrial FIT4FoF areas

- Cybersecurity

Main focus of initiatives

- Collaborative and/or research project
- Training / Education

Extent of the initiative

 African countries

Funded by

National government funding

Target group

- Employees (Operators)
- Students

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval
- Technological

Main outcomes


Comprehensive knowledge of the operation of data networks (network technologies, protocol architectures, interconnection equipment, applications and services); Expert knowledge of tools development to automate cybersecurity tasks; Expertise in the safe installation and administration of operating systems and their services; specialized knowledge of the installation, administration and use of cybersecurity solutions; Expertise in data network planning, installation and administration.

Instituto Politécnico de Bragança

Company description

The Polytechnic Institute of Bragança (IPB) is a Portuguese Polytechnic Higher Education institution, founded in 1983. IPB is currently divided into five schools, embracing a wide area of knowledge and technology, including agriculture sciences, arts and sports, education and teachers training, informatics and engineering, administration and management, health, and tourism. Nowadays, the IPB offers over 100 short-first cycle courses, bachelor programmes and master programmes, all according to the Bologna Declaration. Since these areas of teaching and research have been strongly developed over the last years, the Institute has witnessed a parallel growth of its student population, reaching the number of 7,000, with 12% of international students. As a result of a strategy to encourage further advanced studies undertaken by its members, IPB has presently the most qualified academic staff of the Portuguese polytechnic system (the highest number of professors holding a PhD degree per total number of staff), and an external recognition of its research activities, including a wide number of research projects and the existence of three research units of the Portuguese Foundation for Science and Technology (FCT) hosted in the IPB. IPB belongs to the group of Universities of Applied Sciences (UAS) in Europe, focused on the transferability of professional skills and the integration of applied research in their professional and technological education mission.


Address

 Campus de Santa Apolónia, 5300-253 Bragança. Portugal

Website

 <http://portal3.ipb.pt/index.php/pt/ipb>

Email

 pedrosa@ipb.pt

Type of entity

 University

Best practice

Project based learning approach using case studies, simulations and role-play. The employers brings real challenges that are modeled for learning experiences.

CYBERSECURITY OT - ASEGURANDO LA PRODUCCIÓN

Description of the initiative

Description

Dissemination event on industrial cybersecurity. It will tell how to design the communications scheme, how to monitor it and how to manage it.

Status

Ongoing

Date

11th Jun, 2019 / 11th Jun, 2019

Link to the initiative

<https://landingpage.xnetworks.es/Inscripcion-ciberseguridad-OT.html>

Industrial FIT4FoF areas

- Cybersecurity

Main focus of initiatives

- Communication and dissemination activities
- Event, forum or network
- Training / Education

Extent of the initiative

Local

Funded by

Private funding

Target group

- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval

Main outcomes

To make Galician industrial companies aware of the importance of applying cybersecurity in their business and to establish the bases so that they know how to do it.

Tecdesoft

Company description

We believe that a better world is possible thanks to the good use of technology. That's why we work with you so you can use the latest advancements to make better and cheaper. The heart that drives your factory.

Address

Polígono de POCOMACO, Avenida Quinta, N°70 (pcla. E18/3) 15190. Spain

Website

<http://www.tecdesoft.es>

Email

info@tecdesoft.es

Type of entity

Small and Medium Company (SME)

CYVETSECURITY

Description of the initiative

Description

CyVETsecurity is a project intended to increase the level of awareness of digital perils and the importance of adopting preventing measures among VET students. The project also aims to build modules addressed to achieve different learning outcomes related to different levels of application of cybersecurity and Increase the level of qualification related to cybersecurity among VET students and workers and to improve the capacity of people and companies to prevent, protect and react in front of cyberattacks and other digital perils.

Status

 Completed

Date

1st Nov, 2018 / 31st Oct, 2020

Link to the initiative

 <http://www.cyvetsecurity.eu/>

Industrial FIT4FoF areas

- Cybersecurity

Main focus of initiatives

- Communication and dissemination activities
- Training / Education

Extent of the initiative

 European

Funded by

European funding

Target group

- Students

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval
- Technological
- The project is addressed to any sector

Main outcomes

We have categorised the main learning outcomes related to cybersecurity, bearing in mind VET levels, according to 4 profiles: non technical and with minimum requirements of data protection (applicable to any person basically) non technical but with high requirements of data protection (professionals working with financial data or sensitive personal information, like hospitals or insurance companies), technical but with lower requirements of data protection (OT experts who need some IT skills in order to protect production above all) and technical profiles specialised in cybersecurity (IT profiles with a specialization in data protection). The next step is developing training materials to acquire the learning outcomes identified for each type of profile.

Best practice


The working methodology where VET colleges cooperate together and also with companies from their local context is giving good results.

HETEL

Company description

HETEL is an association of 24 VET centres, located in the Basque Country. Since 1987 we have been working with enthusiasm, commitment, creativity and in cooperation with the aim to promote and improve Vocational Training in the region focused on the employability of youth and the competitiveness of Basque companies. We were the first organization from the field of VET recognised with Silver A Award for its advanced management system (2015).

Address

 C/ Andra Mari, 5, Vizcaya (Spain). Spain

Website

 <http://www.hetel.eus/index.php/eu/>

Email

 international@hetel.org

Type of entity

 Association

DA.RE - DATA SCIENCE PATHWAYS TO RE-IMAGINE EDUCATION

Description of the initiative

Description

The project aims the pioneer development of a new blend mixed education program, actuating as catalyser for the design and deployment of new educational programs, at national, European and international levels, in the field of data science.

Status

Completed

Date

1st Sep, 2016 / 31st Aug, 2019

Link to the initiative

<http://dare-project.eu/>

Industrial FIT4FoF areas

- Data analytic

Main focus of initiatives

- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Employees (Operators)
- Unemployed
- Both
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Agri-food
- Automotive
- Medical-technological sector
- Technological

Main outcomes

The assessment of existing Data Science training paths in european countries, such as UK, Italy, Portugal, Servia and Slovenia. From which was possible to extract the training needs in the area of Data Science. Also a online and residential course was organised in Italy, with the purpose of training people from different backgrounds in the area of Data Science. From this experience it was possible to build a broad course curriculum for a Master degree in the Data Science area, that will be applied in the partner countries (Portugal, Italy, Slovenia and UK).

Best practice

During the development of this initiative it was possible to assess that training people from different backgrounds and countries can be beneficial in trading knowledge and in speeding up the training process.

Loccioni

Company description

Loccioni integrate ideas, people and technologies in developing measurement and control automatic systems to improve products, processes and buildings quality, efficiency and sustainability. The commitment is measuring for improving, thus helping all those who realize products or offer services to do it in the best way, saving time, money and respecting the environment. Clients and partners are the world leaders in their markets, from Automotive to Home Appliance, from Environment to Health Care.

Address

Via Fiume 16 60030 Angeli di Rosora, Italy. Italy

Website

<http://www.loccioni.com/?lang=en>

Email

info@loccioni.com

Type of entity

Big company

DIGITAL DAYS - INDUSTRI 4.0

Description of the initiative

Description

The Digital days - Industri 4.0, is a yearly 3 days event between the educational Institutions; UCN, EUC-North and Aalborg University. The initiative involves both students, teachers and different companies that has place in the Industri. This year the involved students work together on solving a case-oriented challenge, formed by the company Dolle, which produces ladders. The case this year means that the students must find a way to optimize the production at Dolle via Sensor data and the industrial machines and robots, in the making of a loft-ladder.

Status

 Completed

Date

3rd Apr, 2019 / 5th Apr, 2019

Link to the initiative

 <https://dedigitaledage.dk/de-digitale-dage-2019/>

Industrial FIT4FoF areas

- Data analytic
- Human machine interaction
- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Event, forum or network
- Training / Education

Extent of the initiative

 Regional

Funded by

Regional government funding

Target group

- Employees (Operators)
- Students

Sector(s) targeted by the initiative

- Automotive
- Technological

Main outcomes

The students merge together, with their different educational backgrounds and find that they can collaborate and work on the same case and contribute with their specific skills. The students also experience great recognition from one and another and see their own prior skills more clearly. The students are strengthened in their both individual and common professionalism and participate with great motivation.

Best practice


It has been identified that the outcome of the 3 days event has a great impact on all participant. Especially the companies that are involved and delivering cases and the students working on the case. The fact that skills are so clearly in focus, should underline which skills are prior, which skills are needed now and perhaps also which skills are needed in the future.

UCN

Company description

University College of Northern Denmark (UCN) provides education as well as research, development and innovation within four areas: Business· Education/social studies· Health· TechnologyUCN has around 10,000 students and around 1,000 employees and offers close to 40 different study programs. UCN research takes its point of departure in the professions and industries towards which the study programs are targeted. As a result, UCN offer a unique combination of competences, and with tradition for cross-disciplinary collaboration across the different subject areas enables UCN to contribute with a multifaceted, practice related angle on the societal challenges that UCN help to solve.

Address

 Sofiendalsvej 60, 9200 Aalborg, Denmark. Denmark

Website

 <https://www.ucn.dk/>

Email

 jsja@ucn.dk

Type of entity

 Other education centre

DIGITALIZATION AND INDUSTRY 4.0 - COMPANIES

Description of the initiative

Description

Technology development and digitalization create enormous opportunities for your company to increase customer value by streamlining processes, increasing quality, creating new revenue streams, and reducing production costs. But the challenges are significant. Digitalization of business requires a systematic approach, changes in leadership style, and a completely new mind-set in the production chain. The training program "Digitalization and Industry 4.0" is structured as a step-by-step-process in order to support companies of all sizes in their development. Digitalization and Industry 4.0' is a training program that goes in-depth, divided into three courses, followed by an online test and a case study: Basic concepts of the digitalized industry Advanced concepts of the digitalized industry The digital factory The training program is practically oriented. It provides concrete concepts, techniques, strategies and examples of implemented projects. Each course ends with a brief test.

Status

Completed

Date

18th Sep, 2019 / 19th Sep, 2019

Link to the initiative

<https://www.ri.se/en/education/digitalization-and-industry-40-course-1>

Industrial FIT4FoF areas

- Additive manufacturing
- Cybersecurity
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Training / Education

Extent of the initiative

National

Funded by

Paid by participants

Target group

- Both

Sector(s) targeted by the initiative

- Industry

Main outcomes

Insight into the challenges and opportunities that the new industrial revolution creates.

RISE Research Institutes of Sweden

Company description

RISE is Sweden's research institute and innovation partner. Through our international collaboration programmes with industry, academia and the public sector, we ensure the competitiveness of the Swedish business community on an international level and contribute to a sustainable society. Our 2,700 employees engage in and support all types of innovation processes. RISE is an independent, State-owned research institute, which offers unique expertise and over 100 testbeds and demonstration environments for future-proof technologies, products and services.

Address

Stora gatan 36. Sweden

Website

<https://www.ri.se/en/>

Email

linnea.svenman.wiker@ri.se

Type of entity

Government or public institution

DIGITALIZATION OF FARMS. OPTIMIZED CROP MANAGEMENT AND MONITORING

Description of the initiative

Description

Organizing trainings for the use and implementation of farm management software.

Farm and crop management with software management support will lead to a more performant management.

Status

Ongoing

Main focus of initiatives

- Training / Education

Extent of the initiative

National

Target group

- Both

Sector(s) targeted by the initiative

- Agri-food

Main outcomes

Farmers can manage their business quickly and in real time.

They can create an overview and complete picture of the agricultural production cycle. It represents a good tool to increase the rate rate of profitability of agricultural businesses.

Best practice

Access to digitization in Romanian farms

SC Contesti Agricultura Industrie Comert SRL

Company description

Con?e?ti-Agricultur?-Industrie-Comer? was established in 2013 as part of the Agrivalahia brand, with the acquisition of a former cattle farm in Balteni - Contesti, starting with the initial plant cultivation activity.

Address

str Eroilor , nr. 402, Contesti, judetul Dambovita. Romania

Website

<http://agrivalahia.ro/>

Email

office@agrivalahia.ro

Type of entity

Small and Medium Company (SME)

DRIVES - DEVELOPMENT AND RESEARCH ON INNOVATIVE VOCATIONAL EDUCATION SKILLS

Description of the initiative

Description

The aim of the project is to implement the Blueprint objectives for the automotive sector, namely the delivery of human capital solutions to supply chain SMEs through the establishment of an Automotive Sector Skills Alliance, covering all levels of the value chain (vehicle production, automotive suppliers and automotive sales and aftermarket services). The key objectives are defined as following: 1. Assessing and inclusion of existing and proven Skills Frameworks in European countries, modernize them to cope with future automotive trends (using expert analysis companies), and deployment into other countries. 2. Enabling mutual recognition of awards and certificates between formal and informal automotive education, VET and universities, and across Europe in order to enhance the use and success of government funded mobility programmes such as Erasmus+. 3. Implementation of a common European automotive skills umbrella and integration of existing skills frameworks (Sector skills council, ECQA, AQUA, SkillMan, Skills Passport, etc.) including pilot trainings. 4. Deployment of the Apprenticeship Marketplace by enhancing its effectiveness for automotive job seekers. Creation of IT infrastructure to facilitate dissemination of common job requirements, which will be available for job seekers, training providers (namely universities), VET providers and other stakeholders. Promotion of the portal as a labour market place on local, national and European levels.

Status

Ongoing

Date

1st Jan, 2018 / 31st Dec, 2021

Link to the initiative

<https://www.project-drives.eu/en/results>

Industrial FIT4FoF areas

- Data analytic
- Human machine interaction

Main focus of initiatives

- Collaborative and/or research project

Extent of the initiative

European

Funded by

European funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Automotive

Main outcomes

PROFILES Occupational profiles in ESCO format, Automotive Skills Strategic Roadmap or establishing a pool of skills under defined norms. RECOGNITION Encompassing already used tools such as OASQF - Open Automotive Skills and Quality Framework, ERFA - European Recognition Framework for Automotive or harmonised skills passport for harmonised ERFA. IMPLEMENTATION Integrated Online Campus or European certificates. APPRENTICESHIP Understanding the Marketplace and Promoting the apprenticeship marketplace. EVALUATION Recommendations on common European standards of automotive job descriptions or actions towards national and European stakeholders.

Technical University of Ostrava (VŠB-TUO)

Company description

The Technical University of Ostrava (or Vysoká škola báňská – Technická univerzita Ostrava in Czech) is a university (polytechnics) located in the city of Ostrava, Moravian-Silesian Region, Czech Republic. Today the university has a total of about 20,000 students and consists of seven faculties. The institution was founded on 23 January 1849 as the Mining Academy in Přebram. In 1894 it was promoted to university status and in 1904 it was renamed to Vysoká škola báňská, in 1945 it was moved to Ostrava.

Address

Vysoká škola báňská – Technická univerzita Ostrava 17. listopadu 2172/15 708 00 Ostrava-Poruba Czech Republic. CzeC Republic

Website

<https://www.vsb.cz/en/>

Email

university@vsb.cz

Type of entity

University

ELECTRIC AND ELECTRONICS SOLUTIONS FOR SMART SYSTEMS

Description of the initiative

Description

8 public meetings to training together people from universities, research centers and different companies. Local and remote control of low and medium voltage equipment, intelligent power supply, building management in large systems, automation and industrial control, smart metering. Our partner is Schneider Electric Romania, the company that made the first public - private laboratory in our university.

Status

 Ongoing

Date

1st Mar, 2019 / 30th Sep, 2020

Link to the initiative

 <http://ccieeti.valahia.ro/en/schneider.html>

Industrial FIT4FoF areas

- Human machine interaction
- Mechatronics/machine automation

Main focus of initiatives

- Collaborative and/or research project
- Communication and dissemination activities
- Event, forum or network
- Training / Education

Extent of the initiative

 National

Funded by

Private funding

Target group

- Employees (Operators)
- Students
- Unemployed

Sector(s) targeted by the initiative

- Technological

Main outcomes

09.05.2019 - Automation solutions for industrial process management

Best practice


After 4 years of working to develop the system in Electrical, Engineering, Electronics and Information Technology Faculty, two main events was finalized, both for researchers, students and professors: "We build for the future - Ecostruxure - Schneider Electric solutions" (5.03.2019) and "Communication architectures for intelligent buildings" (28.03.2019)

Faculty of Electrical Engineering,
Electronics and Information
Technology

Company description

Is part of the VUT - Valahia University of Targoviste (www.valahia.ro). 750 students in 2018-2019 academic year, more than 60 professors, about 10 researchers. 40 companies involved in Internship programs, 10 national research projects, 1 international project (H 2020) in 2019, more than 85% students employed in the domain field after graduation. 5 specializations for bachelor study, 5 for master study (one of them in English), 1 PhD program. Our main partners are: Arctic, Renault, Otelinox - Samsung, Schneider Electric Romania, Harman Development Center Romania, Vodafone Romania, etc

Address

 Carol I, nr.2. Romania

Website

 http://ccieeti.valahia.ro/en/index_en.html

Email

 coanda_henri@yahoo.com

Type of entity

 University

ELEMENTS OF AI - AN ONLINE COURSE DEMYSTIFYING AI

Description of the initiative

Description

The Elements of AI is a series of free online courses created by Reaktor and the University of Helsinki. We want to encourage as broad a group of people as possible to learn what AI is, what can (and can't) be done with AI, and how to start creating AI methods. The courses combine theory with practical exercises and can be completed at your own pace.

Status

 Ongoing

Date

15th May, 2018 / 10th May, 2022

Link to the initiative

 <https://www.elementsofai.com/>

Industrial FIT4FoF areas

- Data analytic
- Mechatronics/machine automation

Main focus of initiatives

- Training / Education

Extent of the initiative

 Global

Funded by

Private funding

Target group

- Employees (Operators)
- Unemployed
- Both
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval
- Technological

Main outcomes

175 000 students globally, with 15 000 new ones joining each month 1% of the population of Finland trained 40% of the students are women (normally 15% in computer science) 25% of students are over 45 years old - lifelong learning and reskilling 15% completion rate (normally 5% in free online courses)

Best practice


When educating people online, the experience has to be as good as with any other b2c experience. We see that life long education is competing against Netflix and other leisure activities more than against traditional courses.

Reaktor

Company description

Reaktor is an AI and tech partner for modern businesses. We offer a full range of business consultancy and agency services, built on exceptional technological competence and unmatched execution.

Address

 Yliopistonkatu 4. Finland

Website

 <http://reaktor.com>

Email

 ville.valtonen@reaktor.com

Type of entity

 University + Private company partnership

EMPOWERING ENTREPRENEURIAL SKILLS AND UNLEASHING POTENTIAL OF UNEMPLOYED SENIORS

Description of the initiative

Description

MYBUSINESS is an Erasmus+ KA2 Strategic Partnerships project funded by the European Commission, which aims to foster the labor market reintegration of senior unemployed by empowering education and training to create their own business and develop their entrepreneurial skills and spirit. To this purpose, the project shall create and test a customised action programme tailored to unemployed seniors interested in becoming self-employed or entrepreneur, on the basis on their own identified needs and barriers, strengthening their entrepreneurial skills and competences while taking advantage of their experience and promoting self-confidence, contributing not only to the creation of new jobs, but also addressing wider social and economic challenges related to aging population

Status

Completed

Date

1st Sep, 2014 / 31st Aug, 2016

Link to the initiative

www.mybusiness-project.eu

Industrial FIT4FoF areas

- Additive manufacturing
- Cybersecurity
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Grants and scholarships
- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Unemployed

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval
- Technological
- All economic sectors

Main outcomes

- A Senior Entrepreneurship Action Programme.

- A Transnational study of the needs of unemployed seniors to become self-employed or

South Muntenia RDA

Company description

South Muntenia Regional Development Agency (SMRDA) is a non-governmental agency, non-profit and of public utility. The Agency has a wide coverage; it has county branches in all seven counties of the region (Arges, Calarasi, Dambovita, Giurgiu, Ialomita, Prahova and Teleorman) and currently employs 126 experts. Its mission is to develop and implement regional policies and programmes that lead towards the alleviation of economic and social imbalances across the region and contribute to a further sustainable and balanced development

Address

Str. General Constantin Pantazi, nr. 7A, cod poștal 910164 Cîrlași, România. Romania

Website

<https://adrmuntenia.ro>

Email

programe@adrmuntenia.ro

Type of entity

NGO of public utility

entrepreneurs.

- Six individual analyses on unemployed seniors' needs. - Dissemination Plan and Exploitation Strategy

ERASMUS+ DIGITAL MANUFACTURING TRAINING SYSTEM FOR SMES (DIGIT-T) PROJECT

Description of the initiative

Description

The manufacturing industry is currently witnessing a transformation as it increasingly moves towards Digital Manufacturing - often known as Industry 4.0, Smart Manufacturing, Factory of the Future. It offers opportunities for companies to develop new products and ways of working while reducing costs. However, many people and organisations, in particular SMEs, struggle to access clear and useful information about Digital Manufacturing. The ERASMUS+ Digital Manufacturing Training System for SMEs (Digit-T) project aims to address this and has created a free online training programme aimed at helping users understand what Digital Manufacturing is, the associated terminology, the expected benefits, and how an organisation can start adopting it. The training materials, which are available in English, Spanish and Italian, are split into 2 parts: • An online training course • E-book Both the online course and e-book are divided into 3 topics: • Management in Industry 4.0 • Advanced Manufacturing Systems • Intelligent Robotics The training materials developed were selected based on the project team's broad experience of Industry 4.0 and Industry 4.0 technologies, and an industry survey of SMEs which was carried out at the start of the Digit-T project. Though designed for SMEs, the materials could equally be used by industry professionals from larger companies, academics and students who wish to learn more about digital manufacturing. Both the online course and e-book are available via the project web-site: [digit-t.eu](https://www.digit-t.eu) The partners in the Digit-T project are: University of Nottingham (UK), Eurecat (Spain), STIIMA-CNR (Italy) and AFIL (Italy).

Status

Completed

Date

1st Sep, 2017 / 31st Dec, 2020

Link to the initiative

<https://www.digit-t.eu/>

Industrial FIT4FoF areas

- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Both

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Chemical
- Iron and steel industry
- Medical-technological sector
- Technological

Main outcomes

The training materials, which are available in English, Spanish and Italian, are split into 2 parts: • An online training course • E-book Both the online course and e-book are free to access and available via the project web-site: [digit-t.eu](https://www.digit-t.eu)

University of Nottingham

Company description

The University of Nottingham is a world top 100 university and a world leader in pioneering research. The Institute for Advanced Manufacturing is driving the development of technology with the aim of improving all aspects of high-value manufacturing. The Institute pulls together internationally renowned academics in a diverse range of fields including digital manufacturing, advanced manufacturing technologies, additive manufacturing, composites manufacturing, manufacturing metrology, operations management, and human factors in manufacturing.

Address

Jubilee Campus, University of Nottingham, Nottingham. United Kingdom

Website

<https://www.nottingham.ac.uk/manufacturing>

Email

helena.arrand@nottingham.ac.uk

Type of entity

University

ERASMUS+ PROJECT: "IOT IN EDUCATION - WE ARE THE MAKERS"

Description of the initiative

Description

In this project, partners from six European countries are working together. They create manuals and learning scenarios in order to introduce 3D printing and modern technologies in their schools. The project allows the students to produce their own product and prepares them for industry 4.0. About a thousand students will learn how to design 3D printed prosthesis, interactive devices and software - like in the real world.

Status

Completed

Date

31st Aug, 0020 / 31st Aug, 2020

Link to the initiative

<http://www.wemakers.eu>

Industrial FIT4FoF areas

- Additive manufacturing
- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Communication and dissemination activities
- Event, forum or network
- Grants and scholarships
- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Students

Sector(s) targeted by the initiative

- Medical-technological sector
- Technological

Main outcomes

- Manual for 3D printing + tested learning scenarios
- Manual for IoT + tested learning scenarios
- Manual for fabrication of product for interactional purposes + tested learning scenarios

Best practice

So far: Training of all partners at Create It Real (Denmark), Training at Scuola di Robotica (Italy), creation of learning scenarios individually in each country, e.g. for Germany: learning scenario for PLA, a 3D-printing-material (http://www.jkgweil.de/fileadmin/user_upload/Projekte/Erasmus_WM_learningScenario_ChemistryOfPLA.pdf)

Johannes-Kepler-Gymnasium Weil der Stadt

Company description

The Johannes-Kepler-Gymnasium is a German secondary school with almost 650 pupils, distributed on a total of 18 to 20 classes. As a general secondary school, it leads all pupils to a wide range of university departments in eight years of schooling. The school supports the scientific education and STEM subjects with robotics and medical informatics. We also use NAO robots to develop digital and social skills. Our Robotics-Teams have taken part in lots of different competitions (Robocup German Open, NAO Challenge). There have also been different social projects. Our school runs four drama groups, one in English. Being equipped with an observatory, we also offer astronomy and different activities linked to it. The JKG is connected with different schools in order to prepare A-level exams (Abitur). Furthermore, the school is very open to innovation and technology. We are in touch with different companies where we send our students for work experience. We own five Anycubic-I3-Mega 3D printers, which are fully administered by our students.

Address

Max-Caspar-Str. 47, 71263 Weil der Stadt, Germany

Website

<http://www.jkgweil.de>

Email

katrin.kolmer-kurtz@jkgweil.de

Type of entity

Other education centre

EUROPEAN AUTOMOTIVE CLUSTER NETWORK FOR JOINT INDUSTRIAL MODERNISATION INVESTMENTS

Description of the initiative

Description

The European Automotive Cluster Network for joint Industrial Modernisation Investments (EACN) aims at initiating joint R&D projects and investments teaming partners from different European regions. The focus is set on virtualisation of processes, robotics and artificial intelligence, elasticity of production, and skills and competencies. This project is supported by COSME program.

Founded in early 2017, the European Automotive Cluster Network (EACN) regroups currently nine European automotive clusters from Bulgaria, France, Germany, The Netherlands, Poland, Serbia and Spain. EACN partner clusters represent 1,400 companies and institutions (most of them are SMEs) employing more than 300,000 people.

Status

 Completed

Date

15th Oct, 2018 / 14th Oct, 2020

Link to the initiative

 <http://www.eacn-initiative.eu>

Industrial FIT4FoF areas

- Data analytic

Main focus of initiatives

- Collaborative and/or research project
- Communication and dissemination activities
- Event, forum or network

Extent of the initiative

 European

Funded by

European funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Automotive
- Technological

Main outcomes

The project will bring together SMEs from various countries with the aim of finding common upskilling solutions. The project includes visits to success stories, and direct contact with the different ecosystems. Within the EACN initiative the strategic focus will be on the following issues:


- Workforce learning and development – training programs focused on competencies in data analytics, data interpretation, system integration, software development, increased human-machine integration
- Leadership competency – management's awareness of available technologies, management's ability to plan and execute change processes

Pôle Véhicule du futur


Company description

Competitive cluster label in 2005 and located on the Alsace and Franche-Comté regions, Pôle Véhicule du Futur is an automotive cluster that brings together industrial players, academic and training in the field of vehicles and mobility of the future.


Address

 Pôle Véhicule du Futur Centre d'affaires Technoland 15 rue Armand Japy F-25461 ETUPES Cedex. France

Website

 <http://www.vehiculedufutur.com/en/home.html>

Email

 tr@vehiculedufutur.com

Type of entity

 Cluster

- Industry 4.0 Leadership development program
 - Culture change towards decentralisation of decision making processes on the shop floor
-

Best practice

The clusters participating in the project work directly with SMEs and the regional governments, with the aim of facilitating the industrial modernization of this type of companies, focusing in working environment, training/education, skills 4.0 and re-talenting to meet skills gaps., identifying good practices in governments to promote digital transformation and bringing together SMEs for common projects (same problems, same solutions).

FACTORY 4.0

Description of the initiative

Description

An online platform with the main goal of creating a network of individuals specialised in digitalization. This initiative was possible with the help of our partners: IFM ELECTRONIC, Bosch Rexroth, Phoenix Contact, KUKA și EPLAN

Status

 Completed

Date

8th Jul, 2019 / 8th Jul, 2020

Link to the initiative

 <https://factory40.ro/>

Industrial FIT4FoF areas

- Cybersecurity
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Communication and dissemination activities
- Event, forum or network
- Training / Education

Extent of the initiative

 National

Funded by

Private funding

Target group

- Employees (Operators)
- Unemployed
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Automotive
- Medical-technological sector
- Metal
- Technological

Main outcomes

Promoting digitalization solutions to Romanian companies.

Best practice


A practical workshop where guests could get in-depth knowledge regarding the digitalization solutions implemented by our partners: IFM ELECTRONIC, Bosch Rexroth, Phoenix Contact, KUKA and EPLAN.

Academia Industrială

Company description

Offers an integrated program of technical courses designed to meet the specific needs of production companies.


Address

 Best Smart Consulting SRL 130, ?epe? Vod? Street, 2nd Floor, Ap.C2, Intercom 23 Bucharest. Romania


Website

 <https://academiaindustrială.ro/en/>

Email

 flavius.iliescu@bestsmart.ro

Type of entity

 Small and Medium Company (SME)

GENERATION0101

Description of the initiative

Description

Generation 0101 is strategic partnership between seven European organizations – CTC Rijeka (Croatia), Centro Studi Città di Foligno (Italy), Langas ? ateit? (Lithuania), Cyprus Community Media Center (Cyprus), Telecentar (Croatia), The Latvian Information and Communications Technology Association - LIKTA (Latvia), Sveu?ilište Izmir (Turkey) with a goal to use ITC in solving burning issue of our society – youth unemployment. The project will last for two year. During those two years partners will conduct the study about implementation of Digital Agenda in their countries, with special emphasis on youth unemployment. The study will comprehend youth, employers, and decision makers. The results of the study will be useful to partners in writing guidelines for decision makers on national, but also on European level, and in encouraging changes in solving the problem of youth unemployment. But, that's not all! Organizations which are involved in strategic partnership, have long experience in rising digital literacy of citizens in their community. Together, they will design seven educational modules (every country one module) which they consider to in demand in labor market. These modules are: • e-journalism, • mobile application development, • web design, • community radio, • online collaboration, • easy coding, • video. Each partner will develop one module, and after that provide education to trainers from partner organizations so they can transfer newly acquired knowledge and skills to other. That way, each partner organization will have educational trainers from every of the seven areas. Last phase of the project is carry out free education to young unemployed individuals. Five persons on each education module per organization, which means 245 educated young Europeans. Besides everything aforementioned, during the project, partners will be involved in campaigns which encourage digital literacy and popularize employment in digital industries such as Get Online Week and eSkills for Jobs. The project will last for two years and is co-financed by European Commission through Erasmus+ program with the amount of 275.295,00 €.

Status

Completed

Date

8th Nov, 2014 / 7th Nov, 2016

Link to the initiative

<http://generation0101.eu/>

Industrial FIT4FoF areas

- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Students

Sector(s) targeted by the initiative

- Technological

Main outcomes

Educational materials (both student and teacher handbooks) for 7 modules in 7 languages. 5 Hackathons held. Over 25 local initiatives were strengthened by the results of the hackathon. Over 245 young people educated,

Best practice

We've identified hackathons as a good practice. It let's participants from teh education put their new knowledge to the test while helping local community initiatives grow.

CTK Rijeka

Company description

Centre of Technical Culture Rijeka is a nonprofit nongovernment organization registered since 1993 on the initiative of the Association of Technical Culture Rijeka with the task of encouraging and promoting technical education, computer science, and culture in general by organizing activities in order to stimulate the interest of children, youth, workers and other citizens in areas of scientific, technical and IT culture with application in business and everyday life, and the promotion of scientific, technical, IT and cultural achievements. Organization's work is coordinated and supervised by the executive and supervisory board consisting of nine members of the Executive Board and five members of the Supervisory Board. All activities of the association are carried out by a professional team which is supported by contractors and volunteers.

Address

Školji? 6, 51000 Rijeka. Croatia

Website

<http://www.ctk-rijeka.hr>

Email

info@ctk-rijeka.hr

Type of entity

Association

HIPEAC JOBS

Description of the initiative

Description

HiPEAC Jobs offers a range of services both for advanced computing professionals and companies seeking highly qualified computing candidates. These include: the online jobs portal, jobs walls featuring vacancies from around Europe at events, the HiPEAC Student Challenge, mentoring sessions, student STEM days and more. HiPEAC also runs an internship scheme in which companies post internships and can have these funded. In addition, it offers collaboration grants for peer-reviewed research collaborations, which can be either at an academic institution or in industry.

Status

Completed

Date

1st Jan, 2016 / 28th Feb, 2020

Link to the initiative

<https://www.hipeac.net/jobs/#/>

Industrial FIT4FoF areas

- Cybersecurity
- Data analytic
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Communication and dissemination activities
- Event, forum or network
- Grants and scholarships
- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Medical-technological sector
- Technological

Main outcomes

Over 500 positions are published on the HiPEAC Jobs portal annually. Thanks to HiPEAC-funded collaborations, at least 17 people have been offered permanent positions at the host organisation, several have ongoing collaborations with companies, at least one start-up has been launched, over 14 papers have been published in journals, over 41 papers have been presented at conferences, 4 workshops have been organised and at least 13 scientific results for EU projects have been achieved.

Best practice

Through short stays, such as the three-month stays funded by HiPEAC, early career researchers can learn about working in industry or in another academic group. STEM student days and other student-focused activities are a good way to attract students from areas where there is a shortage of workers - such as in advanced computing - to a large network where they

HiPEAC consortium

Company description

Since 2004, the HiPEAC (High Performance and Embedded Architecture and Compilation) project has provided a hub for European researchers and industry representatives in computing systems; today, its network, the biggest of its kind in the world, numbers almost 2,000 specialists. It provides a platform for cross-disciplinary research collaboration, brings together representatives from research, industry and policy, and helps prepare the next generation of world-class computer scientists. HiPEAC organizes four networking events per year: the HiPEAC conference, two Computing Systems Weeks and a summer school. It also produces the biennial HiPEAC Vision, an influential roadmap which informs European technology research policy areas. In addition, the project offers training, support for academic and industry placements, help in finding excellent computing candidates, careers activities and dissemination support.

Address

UGent-ELIS, Technologiepark-Zwijnaarde
15, 9052 Gent, BELGIUM. Belgium

Website

<https://www.hipeac.net>

Email

info@hipeac.net

Type of entity

EU project



can learn from colleagues and find jobs which best meet their skills.

INFORMATION-TECHNOLOGY

Description of the initiative

Description

Danish companies are increasingly in need of employees who can create and maintain reliable IT systems - both in the public and private sectors. At the program, you will deal with topics such as: basic programming, networking and operating systems, basic database, basic system development, modeling, user-friendliness and graphic design, system operation, etc.

Status

 Ongoing

Date

1st Jun, 2018

Link to the initiative

 <https://www.bygovenpaa.dk/uddannelser/au-i-informationsteknologi/>

Industrial FIT4FoF areas

- Cybersecurity
- Data analytic
- Human machine interaction

Main focus of initiatives

- Training / Education

Extent of the initiative

 Regional

Funded by

National government funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Technological

Main outcomes

As a graduate you will typically work as a program developer, IT employee or external IT consultant. You will typically work with the following tasks: - Analysis - Planning and implementation of IT solutions - New development and further development of systems - Managing development processes from idea to implementation

Best practice

Making development happen and challenge habits to make the participants reconsider and improve their everyday practice within challenging and stimulating learning environments. When theory becomes integrated into the everyday (work)life, the participants will achieve work-relevant development of their prior skills.

Act2learn


Company description

Professional Training Courses and Further Education at UCN act2learn. Tailor-made special and further education programmes with state-recognized qualifications at Diploma Degree level or Academy Profession Degree level. In addition UCN act2learn offer short- or long-term professional training courses, development processes, and thematic one-day seminars. Our professional fields of expertise cover Education, Health, Technology, and Management & HR. We apply these both individually and as combined, inter-disciplinary solutions.


Address

 Sofiendalsvej 60. Denmark

Website

 <https://www.ucn.dk/english/about-ucn/departments/ucn-act2learn>

Email

 ybff@ucnact2learn.dk

Type of entity

 Other education centre

KERN - DEVELOPING COMPETENCIES AND USING THEM PROPERLY

Description of the initiative

Description

KERN is one of the projects that are funded as part of a funding guideline of the Federal Ministry of Labour and Social Affairs (BMAS) on learning and experimentation spaces under the umbrella of the German New Quality of Work (INQA) initiative. It is a research project implemented jointly by research and industry partners B.Braun, Aesculap, SAP SE, KIT, TUV Rheinland, Campusjaeger as well as additional associated partners.

The project 'KERN' develops new concepts for the competence management of employees in the digital world of work (future of work). The ideas are implemented in software-based prototypes and validated in a corporate learning and experimentation room. The goal is the development of an AI-based competence assistance systems (KAS), which support the employee in the own working environment recognizing own potentials, strength and needs and with that making correct decisions for personal development.

To find out more contact us or visit the project homepage: <https://kern-kas.org/>

Status

Completed

Date

20th Jan, 2019 / 30th Jun, 2021

Link to the initiative

<https://kern-kas.org/>

Industrial FIT4FoF areas

- Data analytic
- Human machine interaction

Main focus of initiatives

- Collaborative and/or research project
- Training / Education

Extent of the initiative

European

Funded by

National government funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Cross Industry

Main outcomes

Development and piloting of AI-based competence assistance systems (KAS) for tomorrow's world of work. In particular, the development of learning and experimental rooms will be supported. Employers and employees should develop solutions for the world of work 4.0 together and in a creative process.

Best practice

SAP SE

Company description

SAP stands for Systems, Applications, and Products in Data Processing (Anwendungen und Produkte in der Datenverarbeitung in German). SAP was founded in 1972 in Walldorf, Germany and now has offices around the world.

Address

Walldorf, Germany

Website

www.sap.com

Email

norbert.koppenhagen@sap.com

Type of entity

Big company



Prototype of the KAS (competence assistant system) implemented as AI based chat bot and in an industry context.

LERNFABRIK 4.0

Description of the initiative

Description

The training factory 4.0 is a laboratory that is similar to industrial full-automatic solutions in layout and features. Furthermore, it is a spot to learn and train up basic techniques of application-related processes. Machine engineering and electrical engineering are being linked by the use of professional production systems.

Target groups of the training factory 4.0 are trainees that attend dual training courses of the faculties of metal and electric technique as well as participants of technical schools or advanced training courses that can be offered from medium-sized companies, friend's associations of vocational schools or cooperations with economical organisations, applied academies or the Allianz Industrie 4.0 Baden-Württemberg.

Status

Ongoing

Date

22nd Jul, 2015

Link to the initiative

<https://www.i40-bw.de/de/lernfabriken-4-0/>

Industrial FIT4FoF areas

- Additive manufacturing
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Training / Education

Extent of the initiative

Regional

Funded by

Regional government funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Automotive
- Medical-technological sector
- Metal
- Technological

Main outcomes

Establishment of fully operational training factories with multiple modular units for pupils, trainees, students, professionals and managers.

Best practice

Realized and working training factories 4.0 are at these schools in Baden-Württemberg:

Ministry of Economic Affairs, Labour and Housing Baden-Württemberg

Company description

The Ministry of Economic Affairs, Labour and Housing supports the establishment of so called Lernfabriken 4.0 (training factories 4.0) to prepare pupils, professionals and managers for the challenges of industry 4.0. At the training factories the learners are introduced to the controlling of machines based on real standards of the industry.

Address

Willy-Bleicher-Straße 19, 70174 Stuttgart, Germany

Website

<https://wm.baden-wuerttemberg.de/de/startseite/>

Email

kai.liebold@wm.bwl.de

Type of entity

Government or public institution

- Elektronischule Tettnang,
 - Hohentwiel Gewerbeschule Singen,
 - Karl-Arnold-Schule Biberach,
 - Carl-Benz-Schule (CBS) and Heinrich-Hertz-Schule (HHS) Karlsruhe,

 - Gewerbeschule Mosbach and Zentralgewerbeschule Buchen
 - Vocational schools in Wiesloch (lead), Eberbach, Schwetzingen, Sinsheim, Weinheim,
 - Carl-Benz-Schule Gaggenau,
 - Ferdinand-von-Steinbeisschule Reutlingen,
 - Gewerbliche und kfm. Schulen in Schwäbisch Hall und Crailsheim,
 - Gewerblich-Technische Schule in Offenburg,
 - Technische Schule Aalen (lead) and Gewerbliche Schule Schwäbisch Gmünd,
 - Gewerbeschule Villingen-Schwenningen,
 - Berufliches Schulzentrum Bietigheim-Bissingen mit Carl-Schäfer-Schule Ludwigsburg,
 - Werner-Siemens-Schule Stuttgart (FF), Max-Eyth-Schule, Robert-Bosch-Schule,
 - Philipp-Matthäus-Hahn-Schule Zollernalbkreis,
 - Gewerbliche Schulen Göppingen
-

MADE DIFFERENT DIGITAL WALLONIA

Description of the initiative

Description

The programme Made Different Digital Wallonia is aimed at manufacturing businesses, and is designed to speed up the digital transformation through awareness raising, diagnostics and support around the theme of "Industry 4.0", "smart manufacturing", "factory 4.0", etc. This programme is part of the Digital Wallonia strategy

Status

Ongoing

Date

1st Jan, 2017 / 29th Dec, 2021

Link to the initiative

<https://www.digitalwallonia.be/made-different-digital-wallonia>

Industrial FIT4FoF areas

- Data analytic

Main focus of initiatives

- Collaborative and/or research project
- Communication and dissemination activities
- Event, forum or network

Extent of the initiative

National

Funded by

National government funding

Target group

- Employees (Operators)
- Unemployed
- Both
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval
- Technological

Main outcomes

Bilan and actions 2018: <https://www.digitalwallonia.be/fr/publications/made-different-digital-wallonia-home>

Best practice

Companies which become Factories of the Future or Ambassador Made Different Digital Wallonia: <https://www.digitalwallonia.be/fr/publications/event-made-different-digital-wallonia>

Agence du Numérique / Digital Wallonia

Company description

Wallonia's digital strategy, platform and brand, Digital Wallonia sets the framework for all of the Walloon Government's actions in terms of Wallonia's digital transformation. Agence du Numérique is the organisation which build, coordinate and implement the strategy.

Address

Avenue Prince de Liège, 133, 5100, Jambes. Belgium

Website

<https://www.digitalwallonia.be/>

Email

fanny.deliege@adn.be

Type of entity

Government or public institution

MASTER IN PRODUCT AND PROCESS INNOVATION

Description of the initiative

Description

The Product and Process Innovation master aims to train professionals with skills in science and engineering, enabling them to generate opportunities and promote the development of innovative and sustainable technology-based products and processes with business potential in competitive environments. The master's attendees should be able to create, transfer and apply innovation in productive sectors, establishing and managing business, producing wealth and creating jobs, promoting local, regional, national and international relations between society, science and technology. We offer the opportunity to learn by doing, with a real hands on experience, enhancing previous knowledge, skills and competences and validating the development of new knowledge, new skills at the right pace. To attend this master the candidate needs to be highly motivated, autonomous and seriously involved in creating his own technological business. Teamwork and entrepreneurship or intrapreneurship are the pillars of this master.

Status

 Ongoing

Date

27th Sep, 2019 / 31st Jul, 2021

Link to the initiative

 <http://estig.ipb.pt/index.php/estig/estudar-na-estig/mestrados/inovacao-de-produtos-e-processos/plano-de-estudos>

Industrial FIT4FoF areas

- Additive manufacturing
- Cybersecurity
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Training / Education
- Technological entrepreneurship

Extent of the initiative

 Around the World

Funded by

National government funding

Target group

- Both

Sector(s) targeted by the initiative

- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Medical-technological sector
- Technological

Main outcomes


Startups with innovative products or processes/ OR Intrapreneurship

Instituto Politécnico de Bragança

Company description

The Polytechnic Institute of Bragança (IPB) is a Portuguese Polytechnic Higher Education institution, founded in 1983. IPB is currently divided into five schools, embracing a wide area of knowledge and technology, including agriculture sciences, arts and sports, education and teachers training, informatics and engineering, administration and management, health, and tourism. Nowadays, the IPB offers over 100 short-first cycle courses, bachelor programmes and master programmes, all according to the Bologna Declaration. Since these areas of teaching and research have been strongly developed over the last years, the Institute has witnessed a parallel growth of its student population, reaching the number of 7,000, with 12% of international students. As a result of a strategy to encourage further advanced studies undertaken by its members, IPB has presently the most qualified academic staff of the Portuguese polytechnic system (the highest number of professors holding a PhD degree per total number of staff), and an external recognition of its research activities, including a wide number of research projects and the existence of three research units of the Portuguese Foundation for Science and Technology (FCT) hosted in the IPB. IPB belongs to the group of Universities of Applied Sciences (UAS) in Europe, focused on the transferability of professional skills and the integration of applied research in their professional and technological education mission.

Address

 Instituto Politécnico de Bragança,
Campus de Santa Apolónia, 5300-353
Bragança, Portugal

Website

 <http://www.ipb.pt>

Email

 apereira@ipb.pt

Type of entity

 University

Best practice

The participants perform internships in research centers to explore the research, innovation and deepen their knowledge. All the methodologies are based on teamwork and applied in the real world, making real technological business.

Coaching/ Facilitators/ Scientific & Business Mentors and Consultants

MASTER ON CYBERSECURITY

Description of the initiative

Description

Our technological present is marked by the development of new technologies and by the disruptive capacity of exponential technologies (cloud, robotics, artificial intelligence, the internet of things, analytics, etc.). In order to cope with these new risks, the existence of specialized professionals in cyber security is necessary; cybersecurity must be viewed as the security of the information systems, of the computer programs and of the industrial processes. The (ISC)2 institution estimates that in 2021, there will be more than 1.5 million specialized jobs in this field, which will not be assigned. This present is transforming the professional landscape at a speed far superior to the one at which technological schools can train ICT professionals for the challenges of the future. Therefore, it is the obligation of the academic institutions, the universities and, especially, the ICT schools and faculties, to initiate training programmes that help to cover the demand of qualified professionals for the future and, at the same time, to generate opportunities for employment and talent development that have a positive impact in their area of influence. This is the perfect moment to start this degree: there is a need in the business and industrial sectors, which was highlighted in several events and situations; there is a demand coming from students in our ICT centers and from the teaching body who have the skills and the motivation to initiate this degree; and there is a change in the industrial paradigm, the wellknown Industry 4.0, which needs a strong investment in the security of information and of processes. All this sums up in the same project of the centers that train specialists in networks, communication, software and information systems. With this motivation the University of Vigo and the University of Coruña launched the first edition of the Master on Cybersecurity in September 2018, as one of the first Master Degrees in Spain related to this area.

Status

 Completed

Date

1st Jan, 2018 / 1st Sep, 2018

Link to the initiative

 <https://www.munics.es>

Industrial FIT4FoF areas

- Cybersecurity

Main focus of initiatives

- Training / Education

Extent of the initiative

 National

Funded by

Regional government funding

Target group

- Students

Sector(s) targeted by the initiative

- Technological

Main outcomes


Master on Cybersecurity (90 ECTS). 1st edition started September 2018.

University of Vigo

Company description

The Universidade de Vigo is a young and dynamic institution that offers a wide range of training programs in the three specialized and innovative campuses that make it up. We are present in the municipalities of Ourense, Pontevedra and Vigo with three specialized campuses where you will find more than 30 centers for training and research, as well as facilities for sports and leisure, with a continuous cultural program. We also have the Campus of International Excellence Campus do Mar led by the University of Vigo and which adds more than 3000 researchers, forming a cross-border network of research and knowledge with the sea as a driving force. In our campuses you can study 122 official degrees and masters, 39 doctoral programs, 4 joint programming degrees and 4 double degrees with foreign universities. We also offer hundreds of programs, events, workshops and language courses and, of course, our Seniors university program. The University of Vigo has been built on deep positive values, based on transparency and good management, integration, equality, diversity and respect for the environment. We are committed to specialization and quality research and, as an institution committed to the social and economic environment, the transfer of knowledge to society is central for us, so we strive for research to continually revert to social development.

Address

 School of Telecommunications Engineering. Spain

Website

 <http://www.uvigo.es>

Email

 camc@uvigo.es

Type of entity

 University

METIS

Description of the initiative

Description

The METIS: MicroElectronics Training, Industry and Skills project contributes to the EU competitiveness in microelectronics by addressing the shortcomings in education, skills and employability, paving the way for EU leadership in data driven technologies through permanent anticipation of skills and competences, developing and delivering joined innovative training programmes. METIS is a consortium of 20 partners from 14 countries connecting microelectronics industry Start-Ups, SMEs and Large Firms with national and EU industry associations, formal educational providers and regulatory bodies in the field of accreditation and certification. Our Mission The METIS project advances the growth strategy of the European microelectronics sector by: • Establishing the EU Microelectronics Observatory & Skills Council, platform for exchange and monitoring of skills needs in the microelectronics sector • Developing the Microelectronics Sector Skills Strategy, helping to address the demand and supply of skills in microelectronics industry • Federating European synergies towards the needs of data-driven technologies, enabled by advanced microelectronics and its skills requirements • Introducing innovative learning-outcome-based curricula jointly developed by industry & education providers • Identifying jobs of the future, define related occupational profiles and monitor progress in the domain of human capital for microelectronics METIS is a Sector Skills Initiative (Key Action 2) and co-funded by the Erasmus+ Program.

Status

Ongoing

Date

1st Oct, 2019 / 1st Oct, 2023

Link to the initiative

http://prod7.semi.org/en/sites/semi.org/files/data17/METIS_Overview.pdf

Industrial FIT4FoF areas

- Cybersecurity
- Data analytic
- Mechatronics/machine automation

Main focus of initiatives

- Communication and dissemination activities
- Event, forum or network
- Policies and regulation
- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Employees (Operators)
- Students
- Unemployed

Sector(s) targeted by the initiative

- Technological
- Microelectronics

Main outcomes

It is a new initiative.

Best practice

The project brings together very big companies such as Infineon, Bosch, X-FAB as well world-class R&D hubs such as imec. It is expected to build a common training platform across the EU in the microelectronics sector. This will address an important gap as the EU microelectronics sector is a cluster-driven sector and there was a lack of a common pan-European platform to connect employers and universities and learners across regions.

SEMI

Company description

SEMI represents more than 2,100 member companies and 1.3 million professionals worldwide to advance the technology and business of electronics design and manufacturing. SEMI members are responsible for the innovations in materials, design, equipment, software, devices, and services that enable smarter, faster, more powerful, and more affordable electronic products.

Address

Rue de Science 14. Belgium

Email

edemircan@semi.org

Type of entity

Association

MIKROERRONKAK / MICRORRETOS

Description of the initiative

Description

The initiative consisted of the development of training materials related with the different industry 4.0 KET to be implemented across a variety of vocational programmes. The materials were developed by VET teachers counting with the support of technical experts from the region, such as the research network IK4 or Tecnalia.

Status

Completed

Date

1st Mar, 2018 / 20th Dec, 2018

Link to the initiative

<http://www.hetel.eus/index.php/es/noticias/494-generando-retos-4-0-para-ciclos-formativos-abantean>

Industrial FIT4FoF areas

- Additive manufacturing
- Cybersecurity
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Training / Education

Extent of the initiative

Regional

Funded by

Private funding

Target group

- Students

Sector(s) targeted by the initiative

- Automotive
- Capital goods
- Chemical
- Metal
- Technological

Main outcomes

Awareness of VET teachers and students about the relevance of industry 4.0 areas applicable across sectors (not only those directly technological, but in the area of chemistry or business administration). Update of the curriculum in a variety of VET programmes.

Best practice

The collaboration between VET teachers and technological experts for the update of training materials helped to gain a better insight of the effects of technological changes and trends. This way of work is being applied in other projects targeting concrete sectors (like automotive) and areas (like cybersecurity)

HETEL

Company description

HETEL is an association of 24 VET centres, located in the Basque Country. Since 1987 we have been working with enthusiasm, commitment, creativity and in cooperation with the aim to promote and improve Vocational Training in the region focused on the employability of youth and the competitiveness of Basque companies. We were the first organization from the field of VET recognised with Silver A Award for its advanced management system (2015).

Address

C/ Andra Mari, 5, Durango, Vizcaya. Spain

Website

<http://www.hetel.eus/index.php/eu/>

Email

international@hetel.org

Type of entity

Association

MSC DATA ANALYTICS

Description of the initiative

Description

This is a Master's level course designed to provide graduates and working professionals with knowledge and a diverse set of skills that span across all layers of the knowledge discovery stack including storage, mining, analytics, decision support frameworks and visualisations, as well as practical experience with modern tools. In particular, students learn how to (i) analyse large data sets and summarize their main characteristics with the use of attractive data visualisations; (ii) design and create databases that allow organisations to efficiently manage and query their enterprise data; (iii) discover patterns in large data sets with established techniques from various fields such as statistics, machine learning and artificial intelligence; and (iv) understand today's turbulent business environment and learn how modern BI tools enable organisations to survive and excel.

Status

Ongoing

Date

1st Sep, 2017

Link to the initiative

<https://www.uclancyprus.ac.cy/postgraduate-course/msc-data-analytics/>

Industrial FIT4FoF areas

- Data analytic

Main focus of initiatives

- Training / Education

Extent of the initiative

International

Funded by

Private funding

Target group

- Employees (Operators)
- Unemployed
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Technological

Best practice

SAS Joint Certificate in Business Intelligence and Data Mining The programme enjoys a strong collaboration with SAS Institute Inc. and as a result, our students have the opportunity to receive the SAS Joint Certificate in Business Intelligence and Data Mining. Such a certificate enhances our graduates employability and competitiveness in the local and international market. Industry Engagement Collaboration between the university and the industry is an integral part of the programme, ensuring our graduates fulfil industry requirements and have strong, relevant technical skills. The collaboration exists in many forms such as guest lectures, visits to organizations and jointly supervised thesis projects. Such activities provide a strong complement to the students academic studies and an advantage in future employment opportunities.

UCLan Cyprus

Company description

UCLan Cyprus is a branch campus of the University of Central Lancashire situated in Pyla, Larnaka. The campus opened in 2012 and is licensed and registered as a university in Cyprus. It is the only private British university in Cyprus. It accepts international students

Address

University Ave 12-14, Pyla 7080. Cyprus

Website

<https://www.uclancyprus.ac.cy/>

Email

pgandreou@uclan.ac.uk

Type of entity

University

OPEN DEMODAY

Description of the initiative

Description

The main goal of Open DemoDay is to show how technology innovation developed in Galicia can reach the industry. The event is focused on companies from different activity sectors in order to show them the advances about to come in the next years. All the content is aligned with Gradiant basis technology research lines: connectivity, intelligence and security technologies. Moreover, the participants can see different live demonstrations of our technologies and platforms.

The schedule of the journey can be found in [this link](#).

Status

 Ongoing

Date

30th Oct, 2019 / 30th Oct, 2019

Link to the initiative

 <https://www.gradiant.org/opendemoday-2019/>

Industrial FIT4FoF areas

- Cybersecurity
- Data analytic
- Human machine interaction

Main focus of initiatives

- Communication and dissemination activities
- Event, forum or network

Extent of the initiative

 Regional

Funded by

Private funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative


- Aeronautics or aerospace
- Agri-food
- Automotive
- Iron and steel industry
- Medical-technological sector
- Metal
- Technological

Gradiant

Company description

Gradiant is a private ICT technology centre focused on connectivity, intelligence and security technologies. Gradiant is a technology provider, with over 10 years of experience on technology incubation and more than 100 engineers, Gradiant has a footprint in 29 countries and over 170 customers. After 10 years of activity, Gradiant has quintupled the license agreements of its innovation projects in the last two years, which already reach 150 licenses in 18 countries. Some recent public international references include Telefónica, Vodafone, Samsung, PSA Peugeot Citroën, NATO, Indra, Everis, Babcock international, and Boeing.

Address

 Rúa Fonte das Abelleiras s/n · Edificio CITEXVI. Spain

Website

 <http://www.gradiant.org>

Email

 comunicacion@gradiant.org

Type of entity

 Technological centre

OPEN ROBOTICS WORKSHOP

Description of the initiative

Description

The number of welding robots in the Danish companies is in great growth, and automation is increasingly becoming a necessity due to the lack of skilled welders. Many companies therefore demand blacksmiths specializing in robot welding.

The course is primarily aimed at non-skilled and skilled employees who work in companies where industrial robots are used. The participants can, with knowledge of different types of materials and welding processes, produce and load simple welding programs and perform minor changes and corrections to these. Furthermore, the participant can, under supervision, operate the welding robot equipment, including performing the restart procedure during downtime. Finally, the participant can perform simple and common maintenance tasks in a correct and safe manner.


Status

 Ongoing

Date

6th May, 2019 / 3rd Jun, 2019

Link to the initiative

 <https://kursuscentret.nu/kursus-og-uddannelse/metal/%C3%A5bent-svejsecenter/?activityid=41864>

Industrial FIT4FoF areas

- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Training / Education

Extent of the initiative

 Regional

Funded by

National government funding

Target group

- Employees (Operators)
- Students

Sector(s) targeted by the initiative

- Automotive
- Iron and steel industry
- Metal
- Technological

Main outcomes

Students who choose the blacksmith's program specializing in robot welding get the full forge training with; Material theory, Design, Manufacturing processes and Project documentation and more. They also get both theory and practical experience with robot welding. The obligatory main course subjects will be the same for all students. The differentiation takes place in the elective specialization subjects, and the working methods of the project preparation. So the thesis in robot welding is carried out regardless of whether there is one or 10 students at the course.

Best practice


EUC Nordvest is the only school in DK with Valk Welding robots. The goal is that the new thesis on blacksmith training will be able to attract more students to the programs, do to the welding robots from Valk Welding, which has a large market share in Denmark. The school also has a CoWelder from Migatron, which has become a very popular welding robot, which is

EUC Nordvest (Business Education Center North-west)


Company description

EUC Nordvest offers education and other services in the fields of technical and commercial training, technical upper secondary school, trade school, agricultural education, fisheries education, labor market education and other continuing and further education. They have about 2000 students and 300 employees and exists of teaching departments in the cities Thisted, Nykøbing Mors, Fjerritslev and Thyborøn.

Address

 Kronborgvej 119 - Thisted. Denmark

Website

 <http://eucnordvest.dk/>

Email

 kursus@eucnordvest.dk

Type of entity

 Vocational education and training (VET)



primarily used for robot welding of smaller pieces.

PEERS PERSONALENTWICKLUNG

Description of the initiative

Description

We are a Software as a Service Start-Up and have founded as a spin-off of the TRUMPF company. We offer mass-individualized learning paths for production companies so that their employees can acquire the strategic skills necessary to succeed in the future. With our software solution we allow managers to effortlessly plan and execute the up- and reskilling of their employees individually. With our SaaS solution they gain transparency over the skill gaps of their workforce. We solve the customers' problem of having to adapt their employees' skills at an ever increasing speed. Drivers of the VUCA world, such as technology shifts and the lack of skilled labor, require that production companies act now or lose out to the competition.

Status

Ongoing

Date

1st Mar, 2018 / 31st Dec, 2024

Industrial FIT4FoF areas

- Additive manufacturing
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

•

Extent of the initiative

European

Funded by

Private funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)
- Unemployed

Sector(s) targeted by the initiative

- Automotive
- Iron and steel industry
- Metal
- Technological

Main outcomes

We have build a functioning minimal viable product. That means, that we have a software and AI application that work and already offer our value to the customers. With regards to competences, we have developped roles, consisting of tasks and competences and learning path to get from a current to a future role for the production in the metal sector together with TRUMPF and other best practices.

Best practice

We have defined current and future roles as well as a learning architecture and learning path. The content is relevant for all metal productions, including pre and post processes, so white and blue collar. We have developped the content together with TRUMPF and tested it with several SMEs.

Peers GmbH

Company description

The Peers platform enables production companies to upskill their workforce in all skills necessary to succeed in the future. Drawing from the industry's best practices, we provide our customers with strategic roles, based on competencies, and optimized learning paths to achieve those roles. Our AI application optimizes the best learning path with regards to time, money and quality. Based on our top-notch learning architecture, our AI combines formal and informal learning offers from the client and our partners. Together with Germany's (and later Europe's) best learning providers we match a company's need to the best suitable learning opportunity in the market. With our platform, we allow managers to effortlessly plan and execute the up- and reskilling of their employees on an individual level. The Peers solution facilitates interlinking strategic planning with the company's skill profile.

Address

Grönerstraße 13, 71636 Ludwigsburg.
Germany

Website

<https://www.peers-solutions.com>

Email

elisa@your-peers.com

Type of entity

Small and Medium Company (SME)

PROJECT ERASMUS+: UNIFORS-UNIVERSITIES FOR FUTURE WORK SKILLS 2020

Description of the initiative

Description

The project's general objective is to increase quality of soft skills training at both European and international level and for the beginning it will be tested in 5 universities and two SMEs from 6 EU countries (Poland, Romania, Belgium, Spain, Portugal, Greece) in order to foster employability of recent graduates in good quality jobs (goal). Specific objectives: 1.- Soft skill blended training program designed and implemented in 5 universities. 2.- Increase the awareness of 5 universities' students about the relevance of soft skills. 3.- Increase the collaboration between universities and companies.

Status

Completed

Date

1st Sep, 2018 / 28th Feb, 2021

Link to the initiative

<http://www.uwm.edu.pl/unifors2020>

Industrial FIT4FoF areas

- Data analytic

Main focus of initiatives

- Collaborative and/or research project
- Communication and dissemination activities
- Event, forum or network
- Grants and scholarships
- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Both
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval
- Technological
- Universities

Main outcomes

Intellectual Outputs: IO1: Research on labour market soft skills needs in 6 EU countries. IO2: Research on soft skills in university. EU perspective IO3: Development of soft skills training curriculum and teaching materials IO4: Innovative online course on soft skills for university students. Training events: C1: Short-term joint staff training event for trainers. C2: Short-term joint staff for trainers of blended training program. C3: Intensive study programme for students C4: Intensive study programme for teachers Transnational Meetings: TM1 - Kick off Meeting (Poland): October 2018 TM2 – Progress meeting (Romania): February 2019 TM3 – Progress meeting (Greece): April 2020 TM4 – Final Meeting (Poland): January 2021 Multiplier events: E1: Multiplication event in Romania to present IO1 and IO2. E2-E6: Multiplication events in all countries to present all IO. DURING PROJECT IMPLEMENTATION: Specific: IO1: 180 questionnaires (30 per country). 1 final report

UNIWERSYTET WARMINSKO MAZURSKI W OLSZTYNIE (Polonia). Project Coordinator: Bogdan W?odarczyk

Company description

Project coordinator is University of Warmia and Mazuria (UWM), Olsztyn, Polonia (www.uwm.edu.pl/en)-Public University, 27,000 students (2014/2015), 17 faculties and 65 branches of study (humanities, pedagogy, theology, fine arts, law, veterinary medicine, agriculture, engineering, biology, economics, mathematics and medicine), 600 doctoral candidates, 1.500 post-graduate students. Partners; other 4 universities and 2 companies: ROMANIAN AMERICAN UNIVERSITY, Haute école de la province de Liège, UNIVERSIDAD DE VIGO, Método Estudios Consultores SLU, INSTITUTO POLITECNICO DO PORTO, INFALIA PRIVATE COMPANY

Address

Oczapowskiego 2, 10-719 Olsztyn - Poland. Poland

Website

<http://www.uwm.edu.pl/unifors2020>

Email

unifors2020@uwm.edu.pl

Type of entity

University

translated into all languages of the project. IO2: 500 questionnaires to university students (100 per university). 8 face to face interviews per entity. 1 final report translated into all languages of the project. IO3: 4 training modules developed. 80 students trained (16 per university). Training modules translated into all languages of the project. IO4: elearning course: 60 pages of content, 45 images, 18 animations, 16 infographics and 4 minutes of video. During project implementation: Training activities: C1: 12 experts trained (2 per university, 1 from MEC and 1 from INFALIA) C2: 17 experts trained (3 per university, 1 from MEC and 1 from INFALIA) C3: 40 students trained (8 per university) C4: 12 experts trained (2 per university, 1 from MEC and 1 from INFALIA) Multiplier events: at least 30 participants per event.

Best practice

Collaboration between universities and enterprise. Training events. Transnational meetings. Multiplier events as I wrote in the previous section (main outcomes)

REWO

Description of the initiative

Description

For manufacturing companies who struggle to train the next generation of workers, REWO is a knowledge digitalization solution, which drastically improves capturing, visualizing and communicating knowledge to anyone within the company's ecosystem.

Status

 Completed

Date

1st Sep, 2017

Link to the initiative

 <https://www.rewo.io>

Industrial FIT4FoF areas

- Human machine interaction

Main focus of initiatives

- Training / Education

Extent of the initiative

 European

Funded by

Private funding

Target group

- Both
- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval
- Technological

Main outcomes

Make intangible knowledge an asset by using REWO as an efficient way to store tribal knowledge and train new workers; Reduced errors from standardized visual instructions; Less downtime through "just in time learning".

Best practice


This is a case study from one of our customers from the automotive industry: <https://viar.wistia.com/medias/5dxfg1sboxf>

VIAR

Company description

We are an innovative startup on a mission to help anyone go to places that they never imagined they will ever go. We will achieve this by developing solutions for virtual reality and augmented reality that will empower businesses around the world.

Address

 Jenkova 13. Slovenia


Website

 <https://www.viar.si/>

Email

 info@viar.si

Type of entity

 Small and Medium Company (SME)

SAM - SECTOR SKILLS STRATEGY IN ADDITIVE MANUFACTURING

Description of the initiative

Description

As Europe seeks to retain its leading position in industrial competitiveness, there is an urgent need to establish a platform for AM skills at European, National and Regional levels, which is the main objective of the project Sector Skills Strategy in Additive Manufacturing (SAM). SAM's main features are: A Skills Strategy in Additive Manufacturing providing solutions capable to foster and support the growth, the innovation and competitiveness of the AM sector; A methodology for a sustainable and continuous assessment of current and future skills needs in AM through the Observatory in Additive Manufacturing, providing just in time mapping and monitoring of the AM industry technological trends, skills shortages and mismatches, policies and figures; Design, review and deployment of relevant qualifications in the AM sector, built with a learning outcomes approach and linked with EU Frameworks and Tools such as the EQF, e-CF, EntreComp, ECVocational Education and Training (VET) and ECTS; Promotion of the attractiveness of the AM sector as a career choice for primary, general education, Vocational Education and Training (VET) and university's students Awareness Campaign in the field of AM; One online Qualifications Catalogue to continuously update and enlarge the European AM Qualification System, integrating all the developed and to be developed sectoral qualifications.

Status

Ongoing

Date

31st Jan, 2019 / 31st Jan, 2022

Link to the initiative

<https://www.skills4am.eu/index.html>

Industrial FIT4FoF areas

- Additive manufacturing
- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Communication and dissemination activities
- Event, forum or network
- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Employees (Operators)
- Unemployed
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Automotive
- Metal
- Technological

Main outcomes

The European Additive Manufacturing Roadmap is providing the overall guidance for implementing SAM's strategy until 2030, outlining how the project intends to address the evolving sector needs and challenges towards AM skills development. The Strategy includes: Key Challenges facing the AM Sector ("Gap Drives"); Establishment of Strategic Objectives and outline of the proposed supporting actions and implementation activities put forward by SAM and beyond; Mind map of the AM Skills Roadmap representing the required Professional Profiles, Qualifications and Skills linked with the AM value-chain, materials and processes.

EUROPEAN FEDERATION FOR WELDING JOINING AND CUTTING

Company description

EFW and its member organizations have developed international harmonised system for education, training and qualification in the field of joining technologies and additive manufacturing. It was a pioneer organization developing the first harmonized system embracing all the European countries for the qualification of personnel for a wide range of levels both in welding, related technologies and inspection. With the expertise of the welding system, EWF has created the first AM international harmonised system.

Address

Av. Dr. Mário Soares, 35 TagusPark.
Portugal

Website

<https://www.ewf.be/home.aspx?cpp=1>

Email

amlopez@ewf.be

Type of entity

Association



 **Best practice**

EWF Education, Training and Qualification System is recognized as a best practice of international qualification system by CEDEFOP

SIGNAL IDUNA

Description of the initiative

Description

Taking into account that Signal Iduna is a health insurance company and that i work in the underwriting department, during my time here I helped my colleagues to know more about our products and what the compant is doing to have a good understanding and a good connection with our clients and with the employees.

Status

 Ongoing

Date

26th Apr, 2019 / 26th Apr, 2019

Industrial FIT4FoF areas

- Data analytic
- Human machine interaction

Main focus of initiatives

- Collaborative and/or research project
- Training / Education

Extent of the initiative

 European

Funded by

Network funding

Target group

- Employees (Operators)

Sector(s) targeted by the initiative

- Medical-technological sector
- Technological

Best practice


Training students helps to have a good connection with this kind of company and also it helps the company to have future employees with a high level of knowledge

Signal Iduna

Company description

SIGNAL IDUNA offers complete health, life and accident insurance packages for individuals and corporations.


Address

 Calea Floreasca Nr.60. Romania

Website

 <http://signal-iduna.ro>

Email

 cristinamusat19@signal-iduna.ro

Type of entity

 Health and life insurance

SKILLMAN INTERNATIONAL FORUM 2019

Description of the initiative

Description

On October 10th and 11th the SIF - Skillman International Forum will be hosted in Florence, Italy, at the national fair on education DIDACTA, promoted by INDIRE, the National Institute for Documentation, Innovation and Educational Research of the Italian Ministry of Education. FINAL DEFINITIVE TOPICS: Skillman 'action driven' model of CoVE - Nature, characteristics and settings of the Centres of Vocational Excellence promoted by the Skillman Network for a green and inclusive 'game change' in the advanced manufacturing and sectoral skills development. Curriculum design - Innovative curriculum design in the Advanced Manufacturing sector in coherence with ECVET - EQF framework and ESCO classification and in interconnection and coordination of actions and results with the existing EU tools and initiatives for anticipating and matching skills and jobs. Ethical values, green and inclusion - Capacity building synergies and collaboration to connect the competences necessary for Advanced Manufacturing to the personal responsibility according to the UNESCO 17 goals on sustainable development Transnational mobility and learning - Supporting the cooperational model of the Skillman network with innovative approaches and exchange of good practices in transnational mobility for education and employability.

? Opportunities ? discussing relevant issues in Advanced Manufacturing in relation to VET systems, public policies, research and good practices ? keeping informed regarding publications and other sources ? inquiring and share new ideas, materials, suggestions useful for their work ? finding partners for international projects and cooperation Target participants From Skillman members and from connected entities: ? government officials working in education, industry development, innovation, finance, and planning ? TVET organisations, schools and universities ? industries and SMEs ? NGOs and civil society organizations ? embassy and/or trade commissioners ? think-tanks, institutes, academia, and centers of excellence ? development partners ? experts and researchers Keywords #weloveskills ? ethics ? industry 4.0 ? education ? TVET ? inclusive growth ? green growth ? empower ? fair ? peace ? equitable ? environmental sustainability

Status

 Ongoing

Date

10th Oct, 2019 / 11th Oct, 2019

Link to the initiative

 <https://skillman.eu/skillman-eu-international-forum-2019/>

Industrial FIT4FoF areas

- Additive manufacturing
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Communication and dissemination activities
- Event, forum or network
- Training / Education

Extent of the initiative

 International

Funded by

Network funding

Target group


- Employees (Operators)
- Unemployed

Skillman.eu Network

Company description

Skillman is the worldwide Transnational platform of Centres of Vocational Excellence for the Advanced Manufacturing Sector based in the EU, addressed to introduce skills, competences and innovative curricula for the advanced manufacturing sector within the VET pathway. Launched in 2014, the network received the support from the European Commission in 2015, in the field of education and training. In its specific field of intervention it is currently became the largest EU multilateral network, covering plus than 50 countries and combining a solid knowledge of skills needs and training practices with a well organised systemic and sector-related information system. Currently skillman is joined by more than 300 members including new affiliated industries, notable universities and research centres as well NGOs, public bodies and other umbrella organisations. In committing to the realization of its mission the Skillman Network recognized that the dignity of the individual is fundamental and that the UN Agenda's Goals and targets should be met for all nations and people and for all segments of society. Furthermore, the members of the Skillman network endeavored to reach first those who are furthest behind.

Address

 Via Puccini 80. Italy


Website

 <https://skillman.eu>

Email

 secretariat@skillman.eu

Type of entity

 Other

- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Automotive
- Capital goods
- Iron and steel industry
- Metal
- Naval
- Technological

Main outcomes

Expected Outcomes Discussing and analysing the main challenges faced by the Advanced Manufacturing sector regarding: ? Challenges and new approaches to design new innovative curricula ? Interconnection and coherence of curricula and professional profiles with ECVET – EQF framework and ESCO classification ? Advanced Manufacturing sector and responsibility according to the UNESCO 17 goals on Sustainable Development ? social innovation, societal impact, societal challenges and ethical issues ? policies and initiatives for sectoral skills development anticipating and matching skills and jobs

SKILLMAN NETWORK

Description of the initiative

Description

Skillman.eu is a worldwide Transnational platform of Centres of Vocational Excellence for the Advanced Manufacturing Sector based in the EU, addressed to introduce skills, competences and innovative curricula for the advanced manufacturing sector within the VET pathways. It has a large geographical coverage and connects industry and training providers with civil society giving support services that drive growth and effectiveness in the sector.

Status

Ongoing

Date

1st Jan, 2015

Link to the initiative

<https://skillman.eu/>

Industrial FIT4FoF areas

- Additive manufacturing
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Communication and dissemination activities
- Event, forum or network
- Policies and regulation
- Training / Education

Extent of the initiative



Funded by

European funding

Target group

- Both

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Automotive
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval
- Technological

Main outcomes

ECVET – EQF framework and ESCO classification CBL CURRICULUM DESIGN competence based learning SECTORAL SKILLS FORESIGHT TECHNOLOGY skills anticipation lifecycle AM sector and responsibility according to the UNESCO 17 goals SELFIE Self-reflection on Effective Learning by Fostering the use of Innovative Educational Technologies VET toolkit for tackling early leaving

Best practice

The Observatory on Advanced Manufacturing Sector Build resistant, live, bi-directional interactions with a wide range of different stakeholders Create a persistent system of cross-relationships for the long-duration of the skillman.eu model Make a concrete influence in the industry sector and in the VET system addressing policy makers, universities and technical colleges with concrete results To make possible the more general skillman.eu anticipation lifecycle concept the Observatory implements a circular action, the 'Skills anticipation wave' composed by the following three moments that repeat: Provoking

Centro Studi "Cultura Sviluppo"-CSCS

Company description

Starting from 1995, CSCS (Centro Studi "Cultura Sviluppo") plays as an European leading not-for-profit organization in the TVET sector, providing subsidiarity services for training and research, labour market improvement and pedagogic innovation, as well as transnational cooperation. CSCS, as a training centre accredited by the Regional Government, provides initial vocational training, continuous training for businesses, vocational guidance and counselling and apprenticeship courses. Within the Quality Accreditation System of TVET schools in Tuscany Region Italy, CSCS obtained the approval with the highest average quality score among other 870 TVET private and public schools. To date, over 10.000 individuals have been trained by CSCS. Main offices are in Pistoia and training programmes are provided on site and at distance. CSCS delivered accredited and certified training programmes to trainers, individuals, workers, trainees from vocational training system or students for formal and informal education. CSCS implements, in Italy as well as in other European countries, training programmes in many fields as also in ICT. Extending outside of the EU borders dimension, CSCS is the founder and coordinator of skillman.eu, the worldwide network addressed to introduce skills, competences and innovative curricula for the advanced manufacturing sector within the VET pathways, under a model of intervention that includes sustainability and ethical values. The skillman.eu network was started in 2015 and is currently composed by nearly 300 organisations distributed in 48 countries worldwide.

Address

Via Niccolò Puccini, 80, 51100 Pistoia PT. Italy

Website

<http://www.cscs.it/>

Email

cscs@cscs.it

Type of entity

Association



a large interest and debate Filtering the returning information Making the skills anticipation exercise possible

SMART INDUSTRY - ZELF AAN DE SLAG - SHOPFLOOR CYBER SECURITY WITH IOT/PLC DATA COLLECTING WITH OPC-UA

Description of the initiative

Description

One day workshop to train existing (technical) workforce (at polytechnical/fachhochschule/HBO & academic level) on modern open source hard/software tools (Raspberry Pi/Python/OPC-UA) on IoT/PLC data collection & analysis in a cyber secure way. During workshop exercises participants are being hacked and, with given insight, learn how to become cyber-aware and how to collect data equipment into local networks in a secure way.

Status

 Completed

Date

1st Jun, 2019 / 24th Dec, 2020

Link to the initiative

 www.smartindustry.nl and <https://github.com/ejsol/Smart-Industry-zelf-aan-de-slag>

Industrial FIT4FoF areas

- Cybersecurity
- Data analytic

Main focus of initiatives

- Event, forum or network
- Training / Education

Extent of the initiative

 National

Funded by

National government funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Metal
- Technological

Main outcomes

workshop at several Smart Industry fieldlabs

Best practice


Do training at Smart Industry fieldlab, public-private high TRL Industrie 4.0/Smart Industry (NL) environment.

Smart Industry program office


Company description

One day workshop to train existing (technical) workforce on IoT/PLC data collection and shopfloor cyber security

Address

 FME, Zilverstraat 69, Zoetermeer, Netherlands

Website

 <https://www.smartindustry.nl>

Email

 info@smartindustry.nl

Type of entity

 Association

THE FORMATION OF PROFESSIONAL SKILLS FOR OPERATORS WITH NUMERICAL COMMAND MACHINES

Description of the initiative

Description

The operator with numerical command machines qualification will ensure the graduate the ability to work with different materials on semi or automatic machines. The students will be able to complete dedicated operations of material processing or to select and use programs needed for the specific operation.

Status

Completed

Date

15th Apr, 2019 / 1st Jul, 2021

Link to the initiative

<http://www.liceulcioranescu.ro>

Industrial FIT4FoF areas

- Mechatronics/machine automation

Main focus of initiatives

- Training / Education

Extent of the initiative

Local

Funded by

National government funding

Target group

- Students

Sector(s) targeted by the initiative

- Technological

Main outcomes

The execution of specific specimen on numerical command machines, mastering precision in operating, adjustment and service.

Best practice

The theoretical training is done in the high school labs equipped with the latest numerical command technology, hydraulic or pneumatic simulators and stands. The practical training is supported by interested traders or enterprises.

Nicolae Cioranescu Technological High School

Company description

'Nicolae Cioranescu' High School is famous for its long tradition in vocational and technical education in Dambovită District, South Muntenia County, Romania. Here the students are trained in classrooms, Electro-technical, Electronics, Physics, Chemistry, English and Practical Training labs, workshops for the Mechanical and Electrical fields of activity.

Address

Str. Lt. Stancu Ion, nr 35, liceu. Romania

Website

<http://www.liceulcioranescu.ro>

Email

geogabriela@gmail.com

Type of entity

Vocational education and training (VET)

TRAINING AND ASSESSMENT PROGRAMME FOR NEETS FOR FULL INCLUSION IN THE LABOR MARKET AND EU SOCIETY

Description of the initiative

Description

NoNEETs overall objective is to provide a training and assessment programme with the ultimate goal of the integration of young adults in education and/or the labour market and, eventually, their full inclusion in the society, while motivating them to take a positive attitude towards these processes. Concretely, NoNEETs project aims to fulfill the following objectives: - To provide a real and useful understanding of the NEET young adults, based on their own identified demands. - To analyze this phenomenon, both the local particularities and the common patterns at European scale. - To design, implement and exploit a joint programme (common training methodology and contents) that will be easily transferable to other areas. - To enhance the integration, motivation and creativity of the NEET young people by developing skills to access to work, facilitate their transition to labour market or access to training programs or education, and eventually assuring their social inclusion. - To raise awareness of the different target audiences.

Status

Completed

Date

1st Nov, 2013 / 31st Oct, 2015

Main focus of initiatives

- Event, forum or network
- Training / Education

Extent of the initiative

European

Funded by

European funding

Target group

- Unemployed

Sector(s) targeted by the initiative

- Education

Main outcomes

Outcomes achieved - Analysis of the NEETs demands and needs at local and european level. - A Joint Training Programme to give answer to the demand identified for the target audiences. - A communication and exploitation plan to disseminate project results, while increasing and sustaining its impact beyond its lifetime

South Muntenia RDA

Company description

South Muntenia Regional Development Agency (SMRDA) is a non-governmental agency, non-profit and of public utility. The Agency has a wide coverage; it has county branches in all seven counties of the region (Arges, Calarasi, Dambovita, Giurgiu, Ialomita, Prahova and Teleorman) and currently employs 126 experts. Its mission is to develop and implement regional policies and programmes that lead towards the alleviation of economic and social imbalances across the region and contribute to a further sustainable and balanced development

Address

Str. General Constantin Pantazi, nr. 7A, cod poștal 910164 Cîmpulung, România. Romania

Website

<https://adrmuntenia.ro>

Email

programe@adrmuntenia.ro

Type of entity

NGO of public utility

“UPSKILLING. HABILIDADES PARA EL FUTURO”

Description of the initiative

Description

The “Upskilling. Habilidades para el Futuro” project seeks to build sustainable workforce transition models to support the employability and inclusion of vulnerable workers. The so-called vulnerable workers within this project include those job profiles that do repetitive and simple tasks and, which can be easily replaced by machines. Through this project, Forética is supporting companies to tackle the challenges of the future of work. To do so, we are focus on three working areas: 1) Forecasting skills of the future, 2) Ensuring training for all, and 3) Functional mobility in companies. Through these actions, the project will lead to an assessment of company maturity for addressing workforce transitions, support for vulnerable groups within participating companies and formulation of key policy recommendations at national and EU level. Forética is implementing the “Upskilling. Habilidades para el Futuro” project in Spain and CSR Europe, the European leading business network for Corporate Social Responsibility, is the coordinator at European level. Besides, the project is implemented in other countries (France, Italy and Poland) by national organisations. Each national partner will select a group of companies (including SMEs and large companies) to take actions in the three working areas mentioned above.

Status

Ongoing

Date

1st Jan, 2019 / 31st Dec, 2021

Link to the initiative

<https://foretica.org/proyectos-y-soluciones/upskilling-habilidades-para-el-futuro/>

Industrial FIT4FoF areas

- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Policies and regulation

Extent of the initiative

European

Funded by

Private funding

Target group

- Employees (Operators)

Sector(s) targeted by the initiative

- Automotive
- Services, transport, cement sector

Main outcomes

The project is in an early stage but, to date, we can share the following outcomes: At national level, Forética is recruiting a group of companies that have a strong commitment toward their employees and want to ensure responsible workforce transitions within their organisations. Due to the sectorial approach of this project, Forética is mapping interesting regional and national initiatives and policies that support employability of vulnerable groups in Spain. In addition, this project allows us to analysis in depth on the future of work challenges and guide companies to address them. At European level, it is important to highlight that the consortium of the project is developing and sharing initiatives and policies on adult and lifelong learning which are being implemented by governments and key stakeholders in different European countries. Thus, the project is offering peer to peer learning and experts input. Besides, the project offers the possibility of shaping responsible workforce transitions within companies through a range of transition options: upskilling of worker for new positions, redeploying workers with current skills or supporting transitions to other employers.

Best practice

Some sectorial actions and policies are taking place at local, national and European level, especially to support at-risk employees. Since these actions are quite fragmented, it is challenging to reach a great impact and, thus, ensuring collaboration among companies, public authorities and other actors is paramount to address the challenges on the future of work. Thus, cross-sectorial collaboration is a key driver of successful, sustainable and responsible workforce transitions.

Forética

Company description

Forética is the leading business network on sustainability and corporate social responsibility in Spain and Latin America. The mission of the body, which has over 200 members, is to encourage the integration of social, environmental and good governance aspects in corporate and organisational strategy and management. Forética is Spain’s only representative of the World Business Council for Sustainable Development (WBCSD) and, therefore, constitutes the Spanish Business Council for Sustainable Development. It is also National Partner Organization of CSR Europe and in Spain, it is the expert voice on the CSR State Council.

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Type of entity

Association

USINE NUMÉRIQUE ILE-DE-FRANCE

Description of the initiative

Description

The «Usine numérique Ile-de-France» program was launched in September 2017 by the Ile-de-France Chamber of Commerce and Industry, with an ERDF funding.

It concerns industrial companies, particularly of the mechanical, aeronautical and automotive sectors with fewer than 250 employees. It aims at supporting them in their digital transition all along the production chain, from design to production, by strengthening existing tools and skills and by re-internalizing product design.

Two solutions are offered to beneficiary companies:

- A 6 month experimentation of a software license adapted to the needs of the company according to its project in situ: a CAD / CAM / simulation software is being tested, employees are trained to use it. After this period, the company is able to estimate the real contribution of the software and the implications in terms of skills.

- Realization of a demonstrator (Proof Of Concept - PoC) of mature technologies from existing manufacturing processes and / or innovative technologies not controlled by the company such as Additive Manufacturing - Robotics - Metrology - Virtual / Augmented Reality - 3D Scanning.

This allows the company to be sure of its choice before investing in a sustainable way.

Status

Completed

Date

5th Jun, 2018 / 30th Jun, 2021

Industrial FIT4FoF areas

- Additive manufacturing
- Cybersecurity
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Training / Education
- helping small and medium firms to test new software

Extent of the initiative

Regional

Funded by

Regional government funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Automotive
- Technological

Main outcomes

CCI Val d'Oise

Company description

Paris Ile-de-France Chamber of commerce and industry represents about 840 000 firms, being actively hired beside the actors who make regional economy –business managers, decision-makers, pupils, apprentices, students or adults continuing education. On the whole territory which includes Paris, the Seine-et-Marne, Versailles-Yvelines, the Essonne, Hauts-de-Seines, Seine-Saint-Denis, the Val-de-Marne and the Valley of Oise, Paris Ile-de-France Chamber of commerce and industry has as missions to represent firms to favour their growth, to form the men and the women in challenges of tomorrow, to support firms growth and to promote the region to increase its influence.

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Type of entity

Government or public institution

9 companies are currently experimenting The “Usine numérique Ile-de-France» programme.

Best practice

Experimenting virtual reality glasses that help the operators on the assembly lines to detect manual errors is a concrete example of what companies may benefit from the “Usine numérique Ile-de-France» programme.

WORKING4TALENT - "HUMAN CAPITAL AND INNOVATION: EMPLOYMENT POLICIES IN LOCAL AND REGIONAL INNOVATION NETWORKS FOR TALENT ATTRACTION AND BETTER JOB OPPORTUNITIES"

Description of the initiative

Description

The project main objective is sharing of experience and good practices in the field of work with „talents” – university students, researchers and young professionals. Mainly it is identification of the talents resources and ways to attract them, their development and mobility and monitoring the job offer vs. demand to create a regional policy for work with this people

Status

 Completed

Date

1st Jan, 2012 / 31st Dec, 2014

Link to the initiative

 www.w4t.eu

Industrial FIT4FoF areas

- Additive manufacturing
- Cybersecurity
- Data analytic
- Human machine interaction
- Mechatronics/machine automation
- Robotics

Main focus of initiatives

- Collaborative and/or research project
- Policies and regulation

Extent of the initiative

 European

Funded by

European funding

Target group

- Employees (Operators)
- Employees (Supervisor/Manager)
- Students

Sector(s) targeted by the initiative

- Aeronautics or aerospace
- Agri-food
- Automotive
- Capital goods
- Chemical
- Iron and steel industry
- Medical-technological sector
- Metal
- Naval
- Technological
- all economic sectors in field of innovation/research

Main outcomes


- Analysis and Benchmarking. Realization of a Good Practice Handbook based on local analyses and best practices; - Learning in common. Organizing 7 Study visits in 7 countries; -Achievement of Project Objectives. Implementation of 2 pilot projects in Spain and Italy; -Policies. Elaboration of a document that will incorporate the lessons learnt and draw up guidelines

South Muntenia RDA


Company description

South Muntenia Regional Development Agency (SMRDA) is a non-governmental agency, non-profit and of public utility. The Agency has a wide coverage; it has county branches in all seven counties of the region (Arges, Calarasi, Dambovita, Giurgiu, Ialomita, Prahova and Teleorman) and currently employs 126 experts. Its mission is to develop and implement regional policies and programmes that lead towards the alleviation of economic and social imbalances across the region and contribute to a further sustainable and balanced development

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Type of entity

 NGO of public utility

for future policies; -Events. Organizing 2 Workshops and 2 seminars to exchange experience and identify successful measures.

Best practice

Renault Technical Center
