The Magazine for VET Professionals

ROBOTS, HUMAN CAPITAL AND DIGITAL LEARNING
Managing transition and inclusion
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EfVET is a unique European-wide professional association which has been created by and for providers of technical and vocational education and training (TVET) in all European countries. Its mission is to champion and enrich technical and vocational education and training through transnational cooperation and building a pan-European network of institutions that could lead European VET policies.

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Focus: Robots, Human Capital and Digital Learning

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Message from EfVET President

Joachim James Calleja

Robots, Human Capital and Digital Learning

As we draw closer to the annual EfVET Conference in Portugal, I wish to invite more members to join us in Portugal and others who may have missed the announcement to send their registration at the earliest possible.

The theme of this year’s conference Robots, Human Capital and Digital Learning aims at discussing how training providers can manage transition and inclusion and inclusion in an age of digitalization and automation.

A society which is experiencing unprecedented technological changes, cannot ignore the fact that the speed for such transformations is having both negative and positive impacts on our populations. While connectivity increases exponentially across all sectors, learning processes are witnessing radical changes in pedagogy, infrastructure and more importantly the relationship between teachers, learners and employers.

With a plethora of distinguished speakers from E&T and industry, the EfVET 2019 conference is an opportunity to enter directly into dialogue with the world of businesses and work in general. Training providers are key players in the Industry 4.0 and culture. Innovations and technological developments in places of work must be keenly followed by similar innovations in teaching and learning.

An increase in work-based learning (in all its forms) is a step in the right direction. This alone, however, it is not enough. Teachers must become more familiar with workplaces, and employers must play a direct role in VET schools, colleges and higher education institutions.

The conference in the Azores must serve as a platform not only for dialogue but also for more focused action at national and regional levels to attract industry to VET schools and to ensure that more learning environments mirror work environments. The advancements in technology, the speed by which innovation is seeping into all aspects of life is changing the way people learn.

We may be at the dawn of the end of the medieval classroom set-up and be moving towards virtual reality classroom in which interaction and practical learning take central stage.

This implies radically changes in the teaching profession but also in the management of schools and higher vocational education institutions.

Dialogue with Industry: towards permeability between the world of E&T and the world of employment

The dialogue with industry in the next EFET conference is another important step at European level towards permeability between the world of E&T and the world of employment. Education is about the formation of good citizens who are capable of transforming what they know and are capable of doing into their own employability. Training without education is an aspect which is short sighted and void of added value to the individual. The return on investment in training is far less than that of education and training. It is in this perspective that the EfVET conference will address industry as a partner, a shareholder in a process which requires learners and workers to alternate work experience with learning experiences.
As Principal of a Vocational College (MCAST – MALTA) I realise everyday how important it is for learners to act as workers and vice-versa. In a lifelong learning perspective and people living longer, the concept of education is abandoning the traditional timeframe that for centuries dominated various systems of education.

Industry 4.0 has imposed on individuals compulsory lifelong learning. This implies learning to learn as a skill as important as speaking a second language, computation, reading and writing and other essential soft skills that enable people to be employable for as long as possible in their working life.

The next EfVET conference will lay these new scenarios to its participants with the hope that rather than focusing on more research we switch to more actions in VET schools, Colleges and HEIs where young and older persons expect to learn new skills for new jobs.

New VET alliance will advocate for more resources to a sector which will make or break Europe’s competitive edge over other global players.

We look forward to seeing as many participants as possible in the Azores in the Azores so that a new VET alliance (made up of educators and employers) will advocate for more resources to a sector which will make or break Europe’s competitive edge over other global players.
EfVET Annual Conference 2019: Registrations open

Taking place from the 23rd to the 26th of October in the Grand Hotel Acores Atlantico and the Hotel Marina Atlantico (Ponta Delgada, Portugal). The EfVET Conference Team together with the EfVET local member ANESPO we will welcome you at the #EfVET19 Conference.

The scope of this years’ conference is to reflect on how VET colleges and schools can manage the necessary transition from school-based to reality-based learning.

Over 238 VET professionals, key policy makers and companies’ representatives from Europe and beyond already registered. Delegates can still get an early bird fee until the 31st of July 2019.

Prof Joachim James Calleja President of EfVET set up the theme and rationale of the conference by imagining a future conference “Where robots could be entrusted with managing EfVET annual conference, the organisers and members would simply sit back, relax and enjoy the event..."

The Conference will host delegates from more than 50 institutions and it will cover more than 72 hours, 30 roundtables and 6 thematic themes’ workshops.

First confirmed speakers, but more are coming...

www.efvet-conference.eu
Interview with TT Coordinators

In June 2019, EfVET Thematic Teams had their first face to face meeting in San Sebastian, hosted by TKNIKA.

The 6 Thematic Teams discussed the different action plans and timeline for their groups.

EfVET speaks with Tibor Dori and Fernanda Torres, both leading the TT on Technology Enabled Learning and Teaching.

Tibor Dori (Hungary) and Fernanda Torres (Portugal) introduce the main discussions of the group during San Sebastian meeting.

All Thematic Teams will present their first results on Wednesday 24 October at the first EfVET Annual Conference day in Azores (Portugal).

How can technology enhance learning?

Tibor Dori (TD) /Fernanda Torres (FT): “In the context of increasing digitalisation and integration of digital tools in education, it is vital to encourage and support digital pedagogies, rather than the mere use of tools and technologies in the learning environment. Technologies can be ineffective and distracting unless they are incorporated into the learning process in a planned and purposeful way.” (Working Group on Digital Skills and Competences 2016-2018)

EdTech is to be used to improve learning when it enriches the pedagogical and technical environment. Technology is also a source of information, which can not only be used in the classrooms, but also in data analysis which is getting more and more important to anticipate learning problems and to provide on time/individualized responses to students’ needs. Pedagogy driven EdTech is a valuable support for teachers and managers, they have often been regarded as an upgrade to our educational models, a way to motivate and engage students or to change from a 19th century model of education to the 21st-century innovative pedagogical model. When we talk about technology, we naturally think about pedagogical innovation and the learning environments of the near future (Artificial Intelligence, Augmented Reality, Immersive Learning). Obviously, technology can only enhance learning if the teachers are motivated, well trained and have a massive traditional pedagogical background. Without knowledge of pedagogy, technology rather decreases the learning effectiveness of the students rather than helping them. There are several ways in which technology enhances and improves learning, for example: gamification; digital simulations and modeling; experience/inquiry-based learning; learning in action; interactivity; make the understanding easier by visualizing complex problems; personalized and differentiated way of learning and teaching that takes account of the student’s learning skills, knowledge and motivation; improved communication; effective assessments; students’ performance management and tracking; fun learning/engaged learning; online collaborative learning; validated open learning possibilities.

In relation with this, the Technology Enhanced Learning Thematic Team was launched, as coordinators could you please explain which its goals are?

TD /FT: The goals of the thematic team have evolved since their introduction. It is a very broad subject and we have been trying to focus our activity on some priorities. One of the goals of the TEL working group is to map and keep updated the Commission’s initiatives and policies on digital education and TEL.

However, we also plan to develop a project, collect and identify good practices, develop a community of practitioners. Developing a CoP is a highlighted goal of the TEL Team. Teacher development is also an important issue for our Thematic Team action plan.
How do these goals fitting within EfVET’s general strategy?

TD /FT: EfVET is one of the leading European-wide professional associations, which has been created not only by, but most importantly for, Vocational Education and Training (VET) providers. As it is, the principal aim of EFVET is to provide a transnational framework to support all co-operative actions aimed at enhancing and improving technical and vocational education and training; in particular: to facilitate networking and partnership and to stimulate the creation of co-operative projects and thematic networks. Based on the goals of TEL TT, we want to create new opportunities for the members for connections, learning and sharing knowledge and good practices that otherwise wouldn’t have existed. We want to give an opportunity to VET educators to come together (virtually) to learn with, and from, their peers.

Tell us a bit more about the first thematic team meeting in San Sebastian, what are the main outcomes from the TEL group?

TD /FT: The main outcomes of the meeting are as follows: developing a shared understanding of TEL and a common vision of the team. Based on this we agreed that at the end of the year:
• the TEL TT has to involve VET providers from 10 EU countries;
• a K2 project has to be drafted.
• based on the TT strategy a 3 years long action plan will be developed
The Team members agreed with the main goals of the project proposal.

Which good practices and projects are you looking into?

TD /FT: We are planning a KA2 project for next year and we intend to share best practices involving 10 different countries. We are looking for good practices in three levels: learners’ level – how the learners use the edtEch for learning; teachers/classroom level – how the teachers teach with edTech; institutional/leadership level – how the digital transformation could be managed by leaders. We are keen on focusing on classroom teaching and learning, on teacher development, on the use of big data and on the development of innovative learning environments.

We think that how technology is being used is the key to enhance learning, especially for struggling learners, as well as for low-income students who cannot be left behind in digital literacy or for students with some disability.

How would you see this initiative being developed within EfVET?

TD /FT: As a first step, we intend to have an active role in disseminating the initiative among the participants in the EfVET Conference 2019, as well as among the members of our Thematic Team.

Right now, which are the main policy areas that you are looking into?

TD /FT: When we talk about TEL, innovation, technology and learning environments, we cannot avoid the financial issues. Our Thematic Team closely follows the Commission’s initiatives on digital education and TEL, giving special relevance to the measures needed to implement the three priorities set in the Digital Education Action Plan and ET 2020 Working Group on Vocational Education and Training: to make better use of digital technology for teaching and learning; develop relevant digital competencies and skills for the digital transformation; develop new pedagogical and andragogical approaches for teachers and trainers; use of modern learning technologies in VET and higher VET; improve education systems through better data analysis and foresight.

What are you expecting to present in the next EfVET Annual Conference 2019?

TD /FT: We intend to prepare and deliver a workshop on TEL, drafting the first version of the K2 project and finalizing the action plan of the TEL group.
The President of EfVET was one of the keynote speakers at the TKNIKA international congress that took place in San Sebastian in June 2019.

In his speech he focused on the challenges of higher vocational education and training in the future of work. Delving into the changes in businesses and in particular the fourth industrial revolution Professor Calleja said that “today, inertia in education is a recipe for lost generations, unemployment and low-skilled workers”.

Professor Calleja said that technology has been the driving force in the progression of human civilization for more than a hundred years. Yet today concerns and challenges are dominating the debate on the transformation needed in education particularly in vocational education and training as well as in higher education. Concerns and misconceptions about robots stealing people’s jobs is top on the agenda. It is true that some jobs are being replaced by automated equipment, yet new jobs are also arising as a result of industry 4.0.

Automated equipment will take over physical, strenuous tasks but this will result in healthier lifestyles and safer workplaces for staff. EFVET President stressed that vocationally-oriented higher education is becoming more visible and gaining in importance. Countries are reducing the number of qualifications they award while broadening their scope, as they put more emphasis on social and transversal skills and competences. Potentially VET re-orientation towards a learning outcomes approach is moving towards a more learner-centred education. In higher education as skills-intelligence systems are becoming stronger and more precise, they highlight the need for reviewing and renewing skills and matching them more effectively to jobs.

Professor Calleja then focused on some of the challenges facing Higher VET among which he mentioned the following:

- the lack of general awareness of HE VET qualifications
- sometimes VET graduates fail to receive adequate recognition of prior learning for their VET college qualifications at higher education institutions particularly universities
- complex governance and often inconsistent funding arrangements

EFVET President quoted several examples from Estonia, Finland, Sweden, the Netherlands, Belgium and Austria in which graduates in HVET have had their employability skills recognized by offers of jobs quicker than other university graduates. Work-based learning even in HVET is being adopted across a wide spectrum of higher education institutions including Universities.

Mr Calleja said that “the need for greater cooperation between the world of businesses and the world of education is increasingly becoming a platform for graduates to find jobs that match their studies”. However, engaging employers in HVET simply as stakeholders is shortsighted according to Professor Calleja.

“It is time, he said “that we engage employers as shareholders of the education programmes particularly at levels of qualifications that pave the way to employment”. HVET is the response of vocational education to Industry 4.0. Investing in HVET in forms of learning by doing, work-based learning and learning on the job are new ways of engaging a wider spread of talents in given populations and in transforming these talents into sustainable sources of productivity, quality service provision and independent living and quality of life.
FIRST EFVET THEMATIC TEAMS EVENT

In less than one year from the official launch in 2018, EFVET Thematic Teams have received quite a lot of attention with 16 coordinators and around 150 registered members from 90 VET organizations. That’s why EFVET decided to organize the first Thematic Teams Event, which was held on the 4th of June in San Sebastian, with the active participation of around 80 EFVET members from 15 countries.

The event was organized at the premises of TKNIKA, and it goes in the direction of providing EFVET members with multiple opportunities to network and cooperate during the year, in addition to our International Conference.

More specifically, the event offered the chance to reconfirm the founding principles of the EFVET Thematic Teams which are focused around 3 pillars:

- **Networking**: the strength of an organization is the strength of its members, so via TTs we aim at mapping and clustering EFVET members on the basis of their priorities, challenges and areas of interest while providing the framework to facilitate collaboration to develop effective solutions;

- **Innovation**: there are many good practices and centers of vocational excellence among EFVET members so TTs aim at supporting VET providers to gather, share and promote know-how and innovative solutions on key/strategic areas;

- **Influence**: EFVET stands for VET as first quality educational choice, which may happen only if VET is properly funded and if VET providers’ needs and expectations are heard and dealt with; TTs play a crucial role in gathering views and requirements from VET providers which will feed EFVET advocacy work at European and, progressively, at National level.

The future developments of EFVET Thematic Teams include embedding sustainability and SDGs as a transversal dimension in VET, merging forces with key stakeholders and initiatives, such as the Blueprint Sector Skills Alliances, and fostering horizontal cooperation, by promoting joint projects and study visits.

**In parallel, we aim at widening, even more, the number of individual members joining the Thematic Teams, particularly from northern Europe.**

The event in San Sebastian offered the opportunity to reconfirm the objectives of each working group, identify joint project proposals, highlight good practices which will be presented at the Azores Conference and start thinking about policy priorities.

On behalf of EFVET, we wish to express our gratitude to the members and coordinators of the Thematic Teams for the excellent work and fresh energy devoted to this new initiative which will allow EFVET to take a new important step forward in its mission to serve the needs of the European VET system.

See you soon in the Azores for the follow-up!

www.efvet-conference.eu
EFVET President and Principal/CEO of the Malta College of Arts, Science and Technology Mr Calleja intensified his plea for more structured and long-term collaboration between VET training providers and employers.

Speaking at the European Commission High-Level conference on Skills for Industry Strategy 2030, EFVET President said that industry and vocational education and training of the future have to work hand-in-hand not as stakeholders but as permanent partners. Employees and employers are feeling threatened by the speed of change and the advancements in technology.

Digitalisation, globalisation and demographic changes are having negative as well as positive impacts on VET as well as on work-places. The two contexts cannot operate anymore in isolation from each other. On the contrary, Mr Calleja firmly believes that the two sectors should operate as one with two distinct roles: businesses must ensure that VET environments remain up-to-date in curriculum design, infrastructure, quality assurance and relevancy to new jobs; on the other hand, VET schools, colleges and Universities have to intensify their role of producing a workforce which is equipped with soft skills, flexibility and the readiness to learn while working and working while learning.

The future of work, Mr Calleja stated “should be today’s education and training”.

“There is only one future for the two sectors and employers and educators should be sitting on the same desk and planning and executing education and training together but in separate contexts: the workplace and the learning home – colleges, schools and higher education institutions.

The High-Level conference had a plethora of distinguished speakers from the world of education and training and the world of businesses with high profile speakers coming from Bosch, IBM Europe, McKinsey and Company, Cisco Systems, the University of Luxembourg, Google, the EIB, AVAESEN Cluster, Le Forem and others.

EfVET President insisted that the time is ripe to convene a European summit for VET Providers and Businesses to establish a set of criteria to join the two sectors in permanent statutory roles in different national and regional settings.

Ms Elżbieta Bieńkowska, European Commissioner for Single market, Industry, Entrepreneurship and SMEs.
CEDEFOP and LLLPlatform organized the policy forum to explore the potential of community lifelong learning centres as one-stop shops for preventing young people at risk and early leavers from education and training opportunities. The event was hosted by the Romanian Presidency of the Council in its permanent representation to the EU in Brussels.

The forum focused on the potential of multidisciplinary teams in community lifelong learning centres (CLLC) to play a key role in tackling ELET. The discussion was welcomed by the Romania EU Presidency’s representative Augustin Mihalache who said that education is a very important topic to discuss and in particular how CLLC can prevent young people from disconnecting from their education pathways.

VET toolkit for tackling early leaving

CEDEFOP presented the new edition of its “vocational and training toolkit for tackling early leaving from education and training”. This toolkit provides practical guidance, tips, good practices and tools drawn from VET to feed into activities and policies aiming at:

- helping young people at risk of becoming early leavers to remain in education and training and qualify;
- helping early leavers to reintegrate into education or training and the labour market.

Policy-makers and practitioners, working in a ministry, VET school, company, guidance centre, public employment service, social service, or youth organisation, can benefit from the toolkit.

Policy discussion

Different EU policymakers discussed early learning in post-Education Training 2020:

- Greater focus on EU cooperation
- Digital learning
- The importance of soft skills
- Encouragement of chambers of Trade/of industry and commerce

Mr Teutsch (DG-EAC, Head of Unit for Schools) said that early leaving has not been defeated yet despite the great improvement, there is a huge difference to have achieved 2020 target of 10% but the ones who remain are the most difficult to reach.

Cedefop acting Director said that LLL centres and other integrated services are beneficial for young people who face multiplier barriers. Early leaving from education and training and youth employment must continue beyond 2020. Using unique information on skill needs extracted from the European skills and jobs that the danger of EU adult workers becoming completely displaced from their job.

Become a VET toolkit ambassador

Ambassadors are policy makers, learning providers, experts and other key stakeholders involved in tackling early leaving from VET at national, regional or local level in Europe. EfVET Members such as Santiago Garcia (CECE) or Alfredo Garmendia (San Viator/Hetel FP) are already ambassadors.
At the beginning of the 90’s when I was just at the beginning of my career as a teacher a big turn in education took place. Until then had we edified ourselves with the cognitive framework taking distance from the behaviourists. But constructivism with all its different aspects opened doors to reinventing education and not the least, ourselves the teachers.

Throughout my career, I have been a great fan of action learning, a practical approach to education based on problem-solving. It was action learning combined with the new perspectives provided by constructivism that made me realize that learning was the meaning of my life and work. My book “The Winning Helix” describes my ideas about education, and it is still quite actual, I must say.

We have entered a new era now. In the ’90s people and machines were separated. In those times a robot was securely isolated in a cage and people did not walk around staring into their phones. We possibly had a hunch of the amount of data then, but the data was unreachable. Looking back to those days one could say that the robot was merely an automaton and we did not know a blip about our universe.

Nowadays everything is connected, massive amounts of data flow via sensors and robots are getting more and more capable of doing different tasks autonomously. Artificial intelligence analyses data and generates results, quite often better than a human being.

Although there are many new and emerging educational ideas, we are still lacking that turn that would help us create and provide education in a way that prepares people for new jobs. People work already now together with autonomous - thinking, sensing and acting – robots, and in the future even more so. In the future people, together with AI, become data scientists creating new concepts and new value for their work and life, not to mention for the bettering of the world.

The earlier mentioned separation was not only between humans and technology but also between jobs and ownership. Today, at least in Finland, we are seeing a huge need for competence at the same time when the unemployment numbers are high. I am also a sailor and from the sea, I know that when the waves cross the wind is changing. So is the case here too – we need a turn in working life.

One solution could be a hybrid model of jobs. In this hybrid model, the employment would consist of both ownership and paid labour. For example, an engineering workshop that decides to recruit intelligent robots could offer the workers a share of the robot. The employee would then work fewer hours in the workshop with less salary, but also earn a part of the robot’s production and productivity.

Recently I have been studying quantum technologies. It is said that these technologies advance in a double exponential pace. The quantum will take technologies and other sciences to a new, still unknown level. It means that we are in a hurry to create a new great turn in education. The new turn must see robots as learners and teachers together with humans, and it must aim not only to a better education but a to inclusion where education can be achievable to everybody on this earth.

* Cristina Andersson*, Non-fiction author and an educationalist. She will be speaking at EIFET Annual Conference 2019.
ARTIFICIAL INTELLIGENCE RECOGNIZES STUDENTS AT RISK OF DROPPING OUT

by Liisa Metsola, Vocational College Live, Finland

Vocational College Live has been piloting software that alarms the teaching staff if the student is in danger of dropping out. In the future, the system will help teachers direct their work resources to the right place before dropping out occurs. The advantage of artificial intelligence is that it recognizes things that the human eye can otherwise miss. It is therefore fair to everyone. Yliaisti Oy implements Droop-software based on artificial intelligence in cooperation with Vocational College Live. The collaboration was originally launched in the spring of 2018 under the Reboot School project. The project sought digital solutions to reduce dropouts in vocational studies.

Risk factors are identified by using machine learning

In summary, Droop collects information about risks factors of dropping out from the college’s student administration software. When information about dropping out risks is easily found in one place, time of the teachers and other teaching staff is saved for the individual instruction and support of the students. Thanks to artificial intelligence, no one is left unnoticed and the individual needs of each student are equally taken into account.

In the first phase of the project, it was necessary to identify warning symbols, i.e. risk factors that have an impact on the increased risk of dropping out.

This study was carried out by utilizing the existing college’s knowledge base over several thousand of graduated and dropped out students. By modeling the data using machine learning, the variables come from factors that are equal to those who have dropped out. Risk factors were found in collaboration with researchers and college’s experts. The first phase resulted in a prediction model consisting of 1100 different parameters.

Partially individualized curriculum raises the risk of dropping out

According to Yliaisti’s findings, the three most obvious factors that increase the risk of dropouts are unauthorized absences, the number and duration of temporary interruptions in studies, and partially individualized curriculum in compulsory education i.e. students who had challenges in one or two subjects in compulsory education, for example, dropped out of their studies up to three times more often than students with a completely individualized curriculum for all subjects, Joonas Heininen from Yliaisti Oy says.
The reason for this special finding can be the concentration of teachers and support activities on students who need more support. “People can miss things that can be detected by machine learning,” Heininen says. “The service does not, however, replace the human view, but allows you to make better use of it,” he continues. According to Heininen, the goal is the seamless interaction between man and machine.

**The software informs the teaching staff almost in real time if the risk of dropping out has increased.**

The system also reveals the reasons why these students have been taken to a risk group for potential measures, Heininen says. On this basis, the risk of dropping out can be addressed in a timely manner and with the right measures.

Choosing the right measures is left to the discretion of the teaching staff.

In the third phase of the project, we will examine how different measures taken at a given time have affected the reduction of the risk of dropping out. In the future, the program could suggest the most effective interventions to minimize the risk of dropping out.

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**Vocational College Live (EfVET Member)** is a vocational special needs college based in the capital area of Finland. Vocational College Live offers studies in various vocational fields as well as pre-vocational training and training for work and independent living for over 1000 students annually.
On April 2018, 25 European Member States signed a Declaration of cooperation on Artificial Intelligence. In its Communication COM (2018) 237 final on Artificial Intelligence for Europe, the European Commission aims, among other objectives, to “prepare for socio-economic changes brought about by AI by encouraging the modernisation of education and training systems, nurturing talent, anticipating changes in the labour market, supporting labour market transitions […]”

Many VET schools in Europe have accepted the challenge and have started to give steps in this direction in different ways:

1. Through partnerships with other VET schools, companies and technological and research centres. This is the case of the Basque Country, where three schools associated to HETEL (Salesianos Deusto, Politeknika Txorierri y Centro de Formación Somorrostro) cooperate with AIC and several companies from the automotive sector in a specialization programme, addressed to higher VET students (EQF level 5). The programme is recognised and certified by the Basque Government. For the creation of the curriculum, HETEL, AIC and the companies have worked in the definition of the contents and evaluation criteria, counting with the support and accreditation of the Basque Institute for Accreditation in Vocational Training. For the delivery of the training, VET students spend training periods in the 3 mentioned schools (2 days a week) and in the companies (3 days a week), following a work-based learning system which enables them to learn in situ companies’ needs and projects in the field of robotics.

2. Through alliances with universities. That is the case of Egibide, a VET school associated to HETEL, which together with Deusto University deliver from last academic year a Bachelor’s Degree in Digital Industry under a dual methodology (alternance school-company from the second year). The Bachelor’s Degree is addressed to provide students with the vision of a smart factory and how different IT and industrial technologies are integrated (including robotics, data analytics or cloud computing).

3. Through specialised robotic labs, like the RoboLab built by the Danish Roskilde Technical College, with the aim to provide training in robotics to all students in the different VET programmes of the school (florist, farmer, industrial technician, carpenter…) so robotics will be a competence in the curriculum of any professional, offering a transversal approach to technology and contributing to the digital competences of the students across sectors.
Going from these local and regional experiences, as we are “better together”, the organisations mentioned, are cooperating now to develop a common project to improve competences on robotics among VET students. It all started in Cologne at a contact seminar held by Erasmus National Agencies in June 2018. The main focus of the seminar was to create project partnerships. Kuben in Norway and Roskilde Technical VET College from Denmark were both present and quickly found mutual grounds. In October 2018, Roskilde Technical VET College visited Kuben Upper Secondary School, the largest upper secondary in Oslo and the first school in Norway to offer a study programme in robotics and automation and many similarities and common areas were found that could give place to an international project.

Roskilde Technical VET College has been a member of EfVET for numerous of years, and it was natural to search for more partners for a future KA2 project among the EfVET members.

During EfVET Annual Conference in 2018, HETEL showed interest and a preparatory visit began to take form. Looking for more partners, and having some knowledge about Keuda – Finland, it felt obvious to invite them in.

A preparatory meeting was held in Roskilde, Denmark in March 2019 and the beginning of great cooperation took off. Roskilde Technical VET College had begun the setup for a RoboLab in their workshop facilities, and from here ideas emanated. A rough sketch for a project was conceived, and “Robots - Digitalization and Automation” was from the beginning the focus of our ideas and pedagogical thoughts.

Next meeting is already planned for September at Egibide - Basque Country, and the theme of this year’s EfVET conference fits like a glove for the partnership. Keuda, HETEL, Egibide and Roskilde Technical VET College have often attended, but this year Kuben will join us.
The project ROBOTS AGAINST FEAR OF FAILURE of the Dutch Aventus VET school (Apeldoorn, Deventer & Zutphen) came second in the prestigious Computable Award 2018 in the category ICT project of the year in Education. And we are proud of that!

We use our social robot NAO in the math lessons of vocational students with fear of failure. Will the students gain more self-confidence? And will they count better? In this project, Aventus cooperates with the iXperium / Center of Expertise Learning With ICT (a collaboration between school boards, research group and teacher training courses at HAN, Saxion (both University of Applied Science) and RobotsInDeKlas.nl (a spin-off from Technical University Delft).

A robot does not judge and creates a safe environment for learning. A robot doesn't say: “don't you understand that yet”.

The idea thus is that if you can reduce stress by practising with this robot, you can also tackle fear of failure. Lessons are developed and the effectiveness of the robot is researched.

The first results are promising!
New Technologies are increasingly becoming an essential component of work and social dynamics inside the information and knowledge society. Vocational Education and Training professionals also have to cope with the massive spread of these technologies. Digital innovation represents an opportunity for the school in order to overcome the traditional concept of class and create a learning space open to the world, to reinforce the sense of citizenship and achieve “smart, sustainable and inclusive growth”, the three priorities of Europe 2020, promoted through the National Digital School Plan. Professionals must be able to integrate consciously new technologies into educational processes. For all these reasons, in the recent years Scuola Centrale Formazione has been promoting a methodological model to support this innovation in VET, that allows its associates to operate at their best in the contexts they work in.

In 2013, SCF launched the INN Project – realized in collaboration with Formatech s.r.l. - with the aim of promoting innovative teaching and learning approaches supported by the use of digital technologies, both mobile (tablets and smartphones), and fixed (interactive whiteboards and desk-computer). The development phase of the INN Project led to a wide range of interventions (training of the trainers; technical assistance; experimentation; monitoring), aimed at creating the conditions of effective impacts, at various levels, on the learners and staff involved.

What impact had the INN Project on Digital Learning?

The term Digital Learning refers to an integrated platform of training tools (webinars, mobile applications, tools and suites). In different Italian regions Scuola Centrale Formazione is carrying out a experimentation integrating new technologies in teaching.

To suggest just some examples, the INN Project has funded a 3D printing workshop and an innovative robotics lab at the Vocational Training School "CFP Trissino (Vicenza) - Fondazione Casa della Gioventù" (www.cfptrissino.it); at Fondazione Luigi Clerici (Milan), innovative teaching has found a perfect place to develop: the Skills Training Space (www.skilltrainingspace.it), a center of technological empowerment and innovative methodologies, which includes laboratories, summer camps and a Digital Academy. All the actions developed in synergy with the INN Project at national level, aims to make teaching more engaging and innovative; to make learners protagonists with an active role during the lessons; to strengthen key knowledge and skills. In recent years we have seen changes in teaching approaches and a strong interest of trainers to use the new technological tools with greater awareness”.

It is a process, that’s why the INN Project is an ongoing investment that will continue over the next few years. In 2019, SCF has planned numerous project actions: 30 training courses at 23 VET centers; 400 hours of training; 32 training modules on methodologies and motivational didactics about Coding, Educational Robotics, Multimedia Publishing, Talent Enhancement.
Digital Learning for long-unemployed adults

by EfVET

ICARO - Innovative Curriculum on Soft Skills for Adult Learners is a partnership project which has designed a customised online training path adapted to the needs of each adult learner in order to get their (re)integration in labour market via their improvement of soft-skills.

ICARO partners have worked with long-term unemployed adult learners, low-skilled and people facing difficulties to access to the labour market in Murcia (Spain), Heraklion (Greece), Hamburg (Germany), Kaunas (Lithuania) and Dublin (Ireland). As Francisca Munuera Giner (Regional Service of Employment and Training, Murcia Regions) stated the leitmotif of the project is that “is never too late to learn” and that’s the main motivation for the partners involved.

The ICARO project includes a combination of a “soft-skills assessment tool (SSA)”, which is a pioneer tool in Europe, and an online training platform “From Home to work”. The online course of 4 Themes and 12 modules (3 modules per theme) is focused on Digital Competence, Initiative and entrepreneurship, Social and civic competence, and Cultural Awareness.

The process has been first to train the trainers (counsellors or career guidance) and then they have proceeded with introducing the SSA and the online platform to the target audience. Though, while piloting the training platform the participants encounter several difficulties, mainly digital difficulties when accessing the platform.

Therefore, even if today digital learning seems natural for many learners, we still have to provide personal guidance, especially when it comes to adults who have a lower degree of basic skills. The ICARO platform could mean a game changer for those long unemployed adults who are looking for a new opportunity.

Learn more
www.icaro-softskills.eu/

Let’s Play VET: playlists as a way to avoid school drops outs

by EfVET

How can we switch learning? Definitely by introducing digital learning tools and innovative teaching resources. That’s what Let’s Play VET project is doing.

Three VET schools from Italy, Spain and Hungary, with the support of two organisations Badgecraft and EfVET has decided to revolutionise the learning system. In the case of the project within the curricula of graphic design, but Let’s Play VET partners hope that playlist methodology could be applied to other curricula.

In principle, “Switch Learning” is a platform to Enhance Learning Experiences through Playlists, Badges and Gamification. It includes an e-training playlist by offering a set of experiences and resources organised together into a compelling media-rich learning pathway around a common theme. The learners engage in the project through a gamely experience of making learning gradual, motivational, social and practical. Finally, the learner will get a digital badge which is a shareable, digital achievement that provides evidence of learning and is earned after completing learning experiences and playlists.

The idea behind the playlists is to engage students via digital learning, as they are digital learners and motivate via online projects. This way we could avoid the increase of school dropouts.

Where are we? The “Switch Learning” platform is ready and the students from the above-mentioned schools are already testing it. But not only that, the students are being available to experience mobility to meet the other partnership students, enlarging their networks and knowledge of how to prepare their online tasks.

A perfect of Digital Learning and Face Face experiences.

Learn more
www.switchlearning.eu
## EFVET NEW MEMBERS

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<tr>
<th>Institution Name</th>
<th>Location</th>
<th>Website</th>
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<tr>
<td>FLORIDA CENTRE DE FORMACIÓ, COOP.V.</td>
<td>Valencia, ES</td>
<td><a href="http://www.floridauniversitaria.es">www.floridauniversitaria.es</a></td>
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<td>Kuben Upper Secondary School</td>
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EfVET Announcements

New Executive Team members of EfVET:

Dr Stylianos Mavromoustakos (Cyprus) elected as Vice President (policy)

Carina João Oliveira (Portugal) elected as Secretary to the Board.

Luis Costa, EfVET National Representative of Portugal, has been elected as President of the Lifelong Learning Platform (LLLP).

EfVET Award of Excellence

This award is intended to honour people, organizations, or projects that have had a lasting and important impact on promoting, improving or innovating VET education, specifically at the European level.

The winners of the Award for Excellence will be announced at the EfVET Conference in Azores, Portugal. The Award of Excellent is now open for the following two categories: European projects and to VET Principals or teachers who have had an outstanding contribution to VET in 2019.

Send applications to the EfVET office: efvet-office@efvet.org and to Marloes De Vries: m.deVries@zadkine.nl.