

PILLARS – Pathways to Inclusive Labour Markets:

Collection of good policy instruments that stimulate creation of innovative and inclusive jobs, following adoption of automation technologies

Part of Deliverable 7.4

June 2023

Tatjana Guznajeva, Juanita Garcia Gutierrez, Ana Oliveira, Matthias Ploeg, Quentin van Nieuwenhuizen

Technopolis



This project receives funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 101004703.

Introduction

The current document presents the collection of **good policy instruments that stimulate creation of innovative and inclusive jobs**, following adoption of automation technologies. These instruments have been identified during the case studies that focused on good practices of inclusive labour market policies across regions in Europe. The case studies have been conducted in all parts of Europe (Norther, Western, Eastern, Southern Europe) and accounted for differences in the levels of innovativeness of regions.

The instruments illustrated below have a strong focus on **innovation**, **industry**, **entrepreneurship**, **labour mobility and migration policies**. However, other policy domains, such as education, training and labour market, are also captured. Each policy instrument is presented in a **box** that includes a short summary of implemented activities, success factors of an instrument and a weblink to access more information about it.

Each box has a background colour, which corresponds to the level of **innovativeness of a region**, based on the Regional Innovation Scoreboard (2021):



Innovation leader – red



Strong innovator - green



Moderate innovator - yellow



Emerging innovator - blue

This should facilitate identification of good policy instruments for regions with **similar innovation performance**. To learn about innovation performance in your country/region, please check the <u>Regional Innovation Scoreboard</u>.

Concordia Design Wroclaw: Accelerating foreign start-ups that contribute to the regional smart specialisation strategy

Concordia Design Wroclaw is a business-focused organisation in the Dolnośląskie region of Poland.¹ It acts as a start-up accelerator for foreign companies. The companies are selected, based on their contribution to the regional smart specialization strategy and on a detailed business plans that outlines how a start-up will benefit and how it will contribute by moving to the region.

The steps of the accelerator programme are the following phases: "soft-landing" (1 month), development (2 months), acceleration (up to 10 months) and post-acceleration (3 months). Besides business support services, Concordia Design Wroclaw provides office spaces for local companies.

Some of the key figures of the accelerator programme for its participants:

- Grants of up to €65,000
- +5 VC's which could be potential investors in a project
- Access to 8 events
- Support of +20 mentors

The accelerator encourages collaboration between local and foreign companies and stimulates internationalisation of their activities. Overall, Concordia Design Wroclaw has been successfully stimulating entrepreneurship, innovation, internationalisation, and attracting highly skilled migrants that generate new innovative job opportunities.

Success factors of the Concordia Design Wroclaw are:

- It provides business services, access to relevant stakeholders and common space to stimulate collaboration, creativity and innovation;
- It strengthens international knowledge networks between the Wroclaw city and the wider region;
- It supports local economic development, as start-ups contribute to the regional smart specialisation strategy.

The Plastics Innovation Centre 4.0 (PIC 4.0): R&D for digitisation in the plastics processing industry

The Plastics Innovation Centre 4.0 (PIC 4.0) is the facility in the region of Koln that represents a completely interconnected research and development environment

¹<u>https://accelerator.concordiadesign.pl/</u>

occupying a total area of 4,205 m^{2.1} It has been funded jointly by the North Rhine Westphalia state and the European Regional Development Fund.

The establishment of the Plastics Innovation Centre 4.0 aims to advance in the field of digitisation in plastics processing and to become one of the world leaders in the industry.² Besides expanding the innovation capabilities of the German plastic processing industry, PIC 4.0 also aims to provide specific skills to workers employed in the sector.

Success factors of the project include:

- Implementation of digital technologies and high-end assistance systems in production, fostering the benefits of digitization and automation with a state-of-the-art Smart Factory in Industry 4.0.
- The centre and its operations build on the local capabilities of the region and work together with local organizations. This way it contributes to the cluster of excellence.
- The Centre serves as a demonstration platform to present real-world solutions of future oriented research topics. Thus, it contributes to the region's reputation and competitivity.³

Cooperation with the Aachen University supports the transfer of knowledge, research results into industries and attracts students to the field of Plastics Industry 4.0.⁴

Prague Innovation Institute (Praha Inovační): Facilitating connections between education, the public sector, and entrepreneurs

Prague Innovation Institute (Praha Inovační) has been established in 2020 to facilitate connections between education, public sector and entrepreneurs in Prague. In essence, the role of the innovation center is to support innovating stakeholders in addressing various challenges that they face. Thus, the Institute facilitates access to funding, expertise, relevant stakeholders through events, workshops, matchmaking activities.

Prague Innovation Institute is the only innovation center in the country focused on advancement of education, as it realises importance of education for innovation. They cooperate with schools at every level of the educational system, raising awareness among

¹<u>https://www.ikv-aachen.de/en/research/pic-40/</u>

² <u>https://www.tpe-forum.de/ikv-approval-to-build-new-plastics-innovation-centre-4-0/</u>

³ <u>https://en.kunststoffe.de/a/specialistarticle/the-pic-40-as-part-of-the-internet-of-pr-316298</u>

⁴ <u>https://www.compositesworld.com/news/institute-for-plastics-processing-at-rwth-aachen-university-to-build-smart-factory-</u>

school directors and teachers about the industry needs, importance of innovation and of entrepreneurship skills. The Institute supports the adoption of modern technologies in education, energy industry, sustainable development, and waste management.

In addition, the Institute runs a business incubator (Enterprise and Innovation Centre) to support start-ups and spin-offs, which also serves as a meeting place for researchers and professionals from public administration, non-profits, and business.

For many years, the policymakers in Prague did not see the need to create a multifunctional organisation that would focus on connecting the education, business and innovation stakeholders and would foster collaboration between them. However, as the innovation ecosystem in Prague has been expanding, becoming more fragmented, and the innovation stakeholders were faced with multiple challenges, the government decided to establish Praha Inovační.

The success of the Institute is attributed to several factors:

- Due to engagement with various stakeholders, the Institute understand their needs and complexities associated with their collaboration. Thus, it is best positioned to propose effective collaboration models for them;
- The Institute acts as an adviser to the policymakers. The insights about the needs, challenges of different stakeholders and potential solutions are passed to the policymakers to design effective policy instruments;
- Prague Innovation Institute effectively uses soft instruments (i.e., discussion forums) to facilitate collaboration between the stakeholders, due to high professionalism of its staff;
- Due to multi-functional purposes of the Institute, it serves as a one-stop-shop for education, business and innovation stakeholders.

EUSOUDIGITAL: Promoting digital literacy in adults through volunteers and local partners

The project *EUSOUDIGITAL*¹ was established as a partnership between the Portuguese Government, the country's largest bank (publicly owned) and a non-profit organization, *MUDA*, to promote digital literacy (such as using browsers, creating, and using an email account, protecting personal data) among adults over 45 years old, through a network of volunteers and local partners (e.g., local authorities, libraries, ONGs).

¹<u>https://www.eusoudigital.pt/</u>

With the help of mentors/volunteers that received training on what and how to teach, free digital trainings are provided in hundreds of local education centres across Portugal. The project has attracted significant attention and has been considered effective, due to delivery of training in a simple/user-friendly manner, availability of personal mentors and accessibility of training in local communities.

The Digital Innovation Hub – EDIH Latvia: Stimulating innovation, business ecosystems, digital transformation and smart specialisation

The Digital Innovation Hub – EDIH Latvia is part of the European Digital Innovation Hub network, created by the European Commission. EDIH Latvia operates in accordance with the RIS3 of Latvia. It supports all entrepreneurs and SMEs, encourages digital transformation in manufacturing industries such as agri-food, electronics, engineering, timber and medicine, and provides the following services:¹

- Arrange technology testing;
- Advise on attracting funding;
- Create an innovation boosting environment;
- Train digital skills.

As a result, EDIH Latvia stimulates the development of both the innovation and business ecosystems, while propelling digital transformation and smart specialisation.

The Hub is based on the collaboration between companies & business associations, entrepreneurship development regional centres, sectoral associations, universities & research centres, over 40 digital technology developers, and national & regional authorities. The effective collaboration between various stakeholders ensures success of the Hub.

Technocampus: Stimulating industry-academy collaboration ono advancement materials in manufacturing strategic sectors

"Technocampus" are technological research platforms in Pays de la Loire, in France, dedicated to advanced manufacturing. They aim to gather industrial and academic players that work on advanced materials deployed in manufacturing strategic sectors, and stimulate closer collaboration between the stakeholders.²

¹ <u>https://www.interregeurope.eu/good-practices/latvian-digital-innovation-hub-edih-latvia</u>

² <u>https://www.technocampus.fr/en</u>

In total, six Technocampuses have been set up:^{1,2}

- Technocampus Océan located in Bouguenais
- Technocampus Alimentation located in Nantes
- Technocampus Electronique et l'Internet des Objets (Internet of Things EoT) located in Verrieres en Anjou
- Technocampus composites located in Bouguenais
- Technocampus Smart Factory (specialized in industry 4.0) located in Montoir de Bretagne (in the vicinity of Nantes)
- Technocampus Acoustique located in de Le Mans

All Technocampuses are focused on different manufacturing sectors present in the region and contribute to the region's competitive edge. Technocampus Ocean (TKO), for example, is dedicated to marine structures and metallic materials. It encompasses industrial and academic stakeholders that work on developing innovative manufacturing technologies for shipbuilding and Manor Renewable Energy. TKO offers different resources, encourages interdisciplinary approach, collaborative R&D and technology transfer. Thus, it contributes to the excellence of Pays de la Loire in the maritime industry.

Technocampus have been effective in addressing the challenges of industrial competitiveness and technological transformation for the following reasons:

- The platforms focus on the development and innovation in industries that reflect the regional strengths/capabilities and are in line with smart specialisation;
- The platforms capitalise on synergies and competences/resources of all involved stakeholders and stimulates further collaboration within a local ecosystem;
- The platforms enable the creation of durable and inclusive employment. It does so for high-skilled occupations in the concerned sectors, attracting human capital; but also, for low-skilled occupations, as it provides a sense of belonging to the region, improving job satisfaction;

One of the core objectives of the system is to provide infrastructure and publicly available spaces to stimulate collaboration and common research, better working conditions, increase of productivity and innovative output.

¹<u>https://www.interregeurope.eu/good-practices/technocampus-ocean-tko</u>

² <u>https://data.teo-paysdelaloire.fr/explore/dataset/234400034-close_data-les-technocampus@paysdelaloire/table/</u>

Green Hub Denmark: Supporting the development and implementation of green business models, solutions, and technologies

Green Hub Denmark, a co-operation platform for green business development, has been set up in North Jutland. It strengthens cooperation between new and existing companies and works to attract companies with green ambitions.³¹ The Hub offers facilities that enable testing and demonstration of green solutions, supports the development and implementation of green business models, solutions, and technologies.

The good collaboration between the knowledge institutions, companies and the Hub ensures its effectiveness. Additional success factors represent the commitments of the national and regional stakeholders to support the green/green-tech sector. Thus, the activities of the Hub are supported through various national/regional initiatives.

GRØN (Green Resource-Ecosystems North Jutland) is a project that aimed to ensure that North Jutland's SMEs are ready to face future challenges by achieving an industrial symbiosis between the green and the digital. By creating new, greener business models, it is expected that businesses would improve their competitiveness by reducing their resource and energy needs. The project's concrete goals were the following:³²

- Screening 100 North Jutland SMEs
- Identifying 50 green business models
- Providing 40 counselling, sparring and maturation courses
- Realising at least 10 green business models

The project comes after a recommendation from the Danish Business Promotion Board and was ran by the Network for Sustainable Business Development Northern Denmark and the Centre for Logistics and Cooperation. It ran from November 2020 to December 2022. The project had a total funding of about 12.2 million DKK (1.6 million EUR), with the Denmark's Business Promotion Board, the EU's Regional Fund and the decentralized business promotion funds being the primary funders.³³

GRØN has been considered effective by its stakeholders, helping to achieve goals of its participants. In addition, the project highlighted that collaboration in innovation increases competitiveness of all participants involved.

The key success factors of the GRØN project are the strong partnerships between the private and public sector actors involved in green economy. The project further strengthened these partnerships by engaging more relevant actors, particularly in the SME community, and increasing commitment to green economy in the region.

"Innovate – Innovation Aid for SMEs": Facilitating the creation of businessresearch partnerships

Malta Enterprise has launched an initiative "Innovate – Innovation Aid for SMEs".¹ The initiative aims to facilitate the creation of Business Research Partnership between SMEs and Research Knowledge-Dissemination Organisations to carry out projects leading to product, process, and organisational innovation.

The funding is provided for the secondment of a highly qualified person to an SME or for providing access to innovation advisory of a Research Organisation. The scheme aims to facilitate access to expertise to generate new knowledge and to accelerate innovation, thereby enhancing business performance and competitive advantage.

The initiative has been considered successful, due to the following:

 It stimulated innovation in SMEs and the development of long-term partnerships with research organisations. The latter has also been contributing to a better quality of research/education in participating research/education organisations, due to better research/academia-industry linkages.

The funding was allocated for 36 months, covering between 50% and 100% of eligible costs. The maximum support for each Partnership is 100-200 thousand EUR, depending on the innovation support services provided. A relatively high and flexible budget represented a significant incentive for SMEs to innovate.

E-Residency: Digital identity to start an online company from anywhere

E-Residency of Estonia is a government-issued digital identity that allows residents and third-country nationals to start a company 100% online from anywhere. Users can authenticate themselves online and sign documents using secure and efficient electronic signatures. Although that card does not grant physical residence or citizenship rights, it provides the following opportunities:

- Setting up and managing a location-independent company online from anywhere in the world,
- Establishing a trusted EU company online in one day,
- Managing the resulting company fully online,

¹<u>https://www.maltaenterprise.com/innovate</u>

- Applying for a business bank account and conduct secure e-banking,
- Accessing international payment service providers (Paypal, Braintree, etc.),
- Digitally signing and transmitting documents,
- Declaring Estonian taxes online.

The programme facilitates the process of starting a company within and outside Estonia, lowers business operating costs, provides access to Estonian administrative system, makes transactions transparent and allows users to trade in euros. Despite that some entrepreneurs indicated that they faced tax conflicts and regulatory complications, for Estonia the programme has increased the country's visibility, presenting it as a champion in digitisation, and stimulated entrepreneurs from around the world to set up a company in Estonia¹.

The success of the initiative is associated with the novelty of the programme, promotion activities that made it well-known among entrepreneurs, and a user-friendly application process.

The Central Transdanubia Regional Innovation Agency (KDRIÜ): Supporting the implementation of the national R&D and innovation policy

The Central Transdanubia Regional Innovation Agency (KDRIÜ) in Hungary was founded in 2008.² The Agency provides a diverse set of activities, such as:

- promoting innovative, high-growth potential SMEs,
- development of technology transfer networks,
- R&D&I project development and project management,
- international project development,
- innovative project evaluation, impact assessment,
- innovation promotion.

The Agency is supporting the implementation of the national research and development and innovation policy in the region. As a result of its activities, more than 100 innovation projects have been developed and over 600 companies received support. Due to strong networks of KDRIÜ, local innovation and business stakeholders gained access to public authorities, company managers, competence centres within Hungary and abroad.

¹ <u>https://link.springer.com/chapter/10.1007/978-3-031-04238-6_22</u>

² <u>https://www.kdriu.hu/en/cegtortenet/</u>

The success factors of the Agency are the following:

- KDRIÜ has been one of the first and most active business/innovation agencies in the region;
- The agency offers a comprehensive package of services and support mechanisms to companies, regardless of their size;

It is an active stakeholder in many large international projects, therefore the staff at KDRIÜ continuously build expertise and develop professional networks.

The Action Plan for Digital Transition: Capacity building and digital inclusions

The Action Plan for Digital Transition was presented in 2020 by *Portugal Digital*, a recently created public agency to coordinate the policies implemented to support workers' and firms' digital transition. The Action Plan establishes capacity building and digital inclusion as its first pillar and sets strategies to address different challenges of citizens. The Action Plan includes initiatives that...

- (i) improve digital education (e.g., ICT in the primary school curricula, promotion of STEM careers among schoolgirls),
- (ii) foster professional training and reskilling, both to train more ICT professionals and to increase employees' digital capabilities in different sectors,
- (iii) ensure digital inclusion and literacy, such as providing adults with basic digital competences or tackle gender inequalities in digital technologies.¹

The key public stakeholders in charge of coordinating the initiatives under each sub-pillar are the Ministry of Education and Ministry of Science and Higher Education (focus on the digital education sub-pillar); the Ministry of Labour and Social Security and, in particular, IEFP (PES) (focus on reskilling and upskilling); and InCoDE2030, a governmental body aiming to support, sponsor and promote different private, public and non-profit organizations (or projects) that contribute to foster digital skills.

The strength of the Action Plan is its focus on stakeholder collaboration and coordination activities, and a comprehensive approach to digital transition.

¹<u>https://portugaldigital.gov.pt/wp-</u> <u>content/uploads/2022/01/Portugal Action Plan for Digital Transition.pdf</u>

PDL Garantie: Financially assisting SMEs and VSEs

PDL Garantie fund seeks to financially assist SMEs and very small enterprises (VSEs). The financial support under PDL Garantie aims to increase capital availability to expand business activities, invest in R&D, purchase new technologies, and foster international cooperation.¹ It consists of a financial guarantee, facilitating 70-80% of the loan, in which 35% is provided by the region and the other 35% is provided by the French Public Investment Bank (Bpifrance).

The fund allows the company to reduce risks when contracting a loan, by (i) facilitating access to financial resources and (ii) providing advice on financial management. The fund is managed regionally through partnerships between the French Public Investment Bank and entrepreneurs.²

PDL Garantie has contributed to regional development, to the creation of new jobs, as well as, to maintenance of existing jobs. Success factors of the PDL Garantie include:

- The loans have 0% interest rate, making it attractive for companies to finance their expansion;
- The loans are re-injected into the business environment after they are repaid because of this the program is sustainable;

The loans are taken up by approximately 40-50 companies a year, and in 2022 summed €27 million.

Programme Your Future Project: Encouraging students to pursue an IT career

Programme Your Future Project is the public-private partnership that aims to encourage students to pursue an IT career.^{3, 4} The programme started in 2016 and will run until 2023. Its total budget is €28 million, partially funded through the European Regional Development Fund (ERDF).

³ Interview 3

¹ <u>https://www.interregeurope.eu/good-practices/pays-de-la-loire-garantie</u>

² <u>https://www.cea.fr/presse/Pages/actualites-communiques/institutionnel/systeme-regional-innovation-performant-region-Pays-de-la-Loire-CEA-inaugurent-trois-plates-formes-technologiques.aspx</u>

⁴ <u>https://programozdajovod.hu/</u>

The project is being implemented by the Hungarian Governmental Agency for IT Development, in partnership with the Ministry of Technology and Industry, and with industry organisations. The programme focused on five pillars: the development of a knowledge base supporting the renewal of IT education; promoting of cooperation between training institutions and ICT companies operating in their environment; increasing the socio-economic recognition of IT professions; implementing activities of communication; and opening digital experience centres to help IT career guidance.

The fifth Pillar has been considered particularly successful, as it focused on bringing children aged 6 to 19 to "experience centres" where they could play games that increase their interest in IT careers. According to the programme's website, about 54 thousand people attended these centres.

The programme has attempted to address the future labour market mismatch. Among its success factors are included:

- The programme has stimulated collaboration between industry organisations and education institutions to ensure high-quality and relevance of education for the companies in the region;
- Children perceived learning as a game, which increased their willingness to participate in the awareness raising campaign;

The programme provided excellent IT software for education and research purposes to universities and research organisations

Malta Marittima': Brining industry and government together to promote and enhanced the Maltese Islands marine and maritime industries

'Malta Marittima' is the agency of the Government of Malta that aims to bring industry and government stakeholders together to focus and promote the continued and enhanced development of the marine and maritime industries in the Maltese Islands.¹

Malta Marittima is composed of a steering that represents the following public organisations - Transport Malta, Department of Fisheries and Aquaculture, Malta Freeport Corporation, Regulator for Energy and Water Systems, Malta Enterprise. The executive team is tasked with the provision of support to the 'Clusters' which address the diverse array of activities in the marine and maritime domains. In line with the Integrated Maritime Policy, 'Malta Marittima' brings the business and non-business members together, in sectoral

¹<u>https://www.maltamarittima.org.mt/index.php/about/wic</u>

'Clusters'. Each sectoral cluster is comprised of businesses, industry associations, government departments, academic and research institutions.

The sectoral clusters are as follows:

- Maritime Commercial Cluster Legal, Financial, Insurance, Broking, Chartering, Ship Owners, Surveyors, Adjusters, Crew Management;
- Logistics Cluster Freight Forwarders, Terminal Operators, Ship agents, Warehouse Operators, Bunkering;
- Marine Engineering Cluster Marine Engineering, ICT, Ship Repair, Technical Services Mechanical and Electrical, Sailing and Motorboat clubs, Marinas, Boat Sales/Chartering;
- Fisheries and Aquaculture Cluster Fishing Boat Owners, Fishing Coops, Fish farming, Aquaculture, Fish Processing, Fisheries Management and Biotechnology;
- Energy Cluster Oil & Gas exploitation and servicing, Offshore renewable, Emissions.

The support of Malta Marittima to the marine and maritime industries ensured sufficient public support to the clusters, informed the policymakers about the stakeholder challenges that need to be addressed, and monitored the development of clusters to speed up engagement between the stakeholders.

Lower Silesian Innovation Rocket: Strengthening Lower Silesian entrepreneurs through international networks integration and local business linkages

The project "Lower Silesian Innovation Rocket" in Poland aimed to strengthen the economic position of the Lower Silesia as a region of thriving development of innovative SMEs. The project funding of roughly €1million has been provided to selected 36 innovative entrepreneurs that own an SME, operating in the areas of smart specialisation of the region and having high attractiveness for foreign investors. The funding aimed to integrate selected SMEs into international innovative business networks, as well as, to strengthen local business linkages within the region.

The project has been launched in December 2020 and has carried out activities supporting the development and internationalisation of innovative companies of the region whilst promoting Dolnoslaskie as a region of innovation which is open for investment. The project has been ran by the regional authorities and co-financed through national funds and the European Development Fund.¹

¹ <u>https://www.economicaccelerator.pl/en/dolnoslaskie-innovation-rocket/</u>

Success factors of the project include:

- Establishment of business contacts by Lower Silesian companies with foreign partners and recipients of products/services;
- Broadening of the reach and connections of these companies, leading to the attraction of more foreign capital and higher international embeddedness into regional/international value chains;
- Access to disruptive technologies and global knowledge pipelines. Providing local companies with new tools to work with, such as simulation and VR-AR technologies.

"LabSTEM Nord+": Increasing STEM education across the education chaing

"LabSTEM Nord+" is a local initiative in North Jutland, launched under the National Danish Technology Pact.³⁴ LabSTEM Nord+ is implemented by Aalborg University and aims to increase interest in STEM education across the entire education chain by ensuring that children and young people maintain an interest in STEM subjects. This is hoped to be achieved by implementing problem-based learning in basic and higher education.³⁵

LabSTEM Nord+ is considered to be a supporting project to the LabSTEM project, based at the University of Southern Denmark. The project received a grant amount of about 1.3 million DKK (176k EUR) and will run from January 2021 until December 2024. So far, the project has involved about eighty teacher and researchers from primary, secondary, and vocational schools, as well as researchers from Aalborg University. The focus of project has been to develop a base of STEM teaching methods as well as developing online STEM teaching courses that can be scaled up or down in terms of complexity to meet the needs of different education levels and ages.

There has been no project evaluation conducted, however, Aalborg University published a paper in 2022 that examined how LabSTEM Nord+ was helping bridge the gender gap in STEM labs.³⁶ The paper argues that preliminary findings point to the project being extremely successful in attracting young women to STEM. The case study they used was a biotechnology course, where interviews with students in high school, technical high school and first year university examine the "meaningfulness" of health-related subjects and how this is a large motivator for choosing an education and career in this field. The research paper found that the project has been able to highlight the importance of "meaning" and "exemplarity" when choosing a career. This means that if the gender gap in STEM related careers is to be closed, women should find meaning as well as examples where they can see themselves (other women) in these careers. Moreover, findings and lessons from the LabSTEM Nord+ inform the cross-institutional and co-creation aspects of STEM teaching;

The programme is aware that uncovering what is needed to bridge the gender gap in STEM can lead to more overall diversity and inclusion in the fields of STEM, meaning that women are not the only ones who will benefit from this.

Success factors of the project include:

- The project is locally funded and implemented, putting the project in an ideal position to address highly localised barriers to entry in the STEM fields;
- The project helps address the skill mismatch in the region by addressing the low participation in STEM fields despite the high need for them;
- The project aims to have a positive long-term impact on teaching methods by targeting how classes are designed and addressing all levels of education.

ENGENHEIRAS POR UM DIA ("(Female) Engineers for one day"): Reducing the gender employment gap in STEM occupations

ENGENHEIRAS POR UM DIA ("(Female) Engineers for one day") is a project, implemented by a leading higher-education institution in Lisbon (*Instituto Superior Técnico*).¹ The project aims to reduce the gender employment gap in STEM occupations by providing female middle and high school students one-day experiences in STEM jobs and creating a network of female role-models and mentors.

The project is coordinated by the Commission for Citizenship and Gender Equality (CIG) and by INCoDe.2030, in conjunction with the Portuguese Association for Diversity and Inclusion (APPDI), Instituto Superior Técnico, 86 partner entities (11 of which are municipalities), 52 primary and secondary schools and 19 higher education institutions.

To strengthen the project and its network of partners, the Alliance for Equality in ICT was created, in December 2021, with a focus on training, capacity building, hiring and retaining more girls/women for the area of technologies and engineering.

The project has reached more than 12.500 young people from primary and secondary education, through various activities, including laboratory practices, role model sessions and mentoring. Although the number of young women in STEM bachelor programmes has been growing, the project lacks resources to expand its mission.

The project highlights that awareness raising and education activities that involve schoolaged children are effective in attracting individuals to pursue career in STEM.

¹<u>https://engenheirasporumdia.pt/</u>

Ť

Business start-up programme for unemployed: Advisory services and financial support for unemployed people to launch a business

The business start-up programme for unemployed is organised and promoted by the Latvian State Employment Agency since 2008. The aim of the programme is to provide advisory services and financial support to unemployed persons to launch a business and sustain it for at least 2 years. The unemployed individuals that have a relevant education background in business or demonstrate that they possess entrepreneurial skills and are willing to start own business are pre-selected for participation in the programme. Following that, participants attend a series of consultations that provide individual assistance to support the preparation and development of a business plan. This assistance is provided by external experts, business consultancies that have been contracted through the open tendering procedure. Once the plan has been developed, a business competition is launched. Based on results of the competition, participants with most innovative and feasible business plans receive a financial grant of up to 5000 EUR.

To support the implementation of a business plan, participants receive additional individual business consultations and a supervisor that supports and monitors progress for the next 2 years. If the grant has not been utilised or misused, the participant should return it. However, if a participant managed to develop own company, grant should not be returned and a participant is offered support by the local start-up business ecosystem.

The start-up programmes are often criticised by the PES. They are considered very costly, due to extensive support of a participant, and not effective, as very few unemployed individuals manage to build a start-up. However, the programme that has been developed in Latvia is successful, due to careful pre-selection of participants, assessment of business ideas and a high-quality of advisory support. Due to careful pre-selection of participants and a relatively small budget, the programme has a small scale, but a higher effectiveness rate.

Junior Achievement: Short-term education programmes for students to develop specific workplace competences

Junior Achievement is a programme in Czech Republic that aims to develop students' ability to work in a team, communicate, independently organize, make decisions, and take responsibility. Students are encouraged to select short-term education programmes to

develop specific competences (business plan development, financial planning, critical thinking, basics of accounting etc.).

The programme is run by JA Czech – an international non-profit educational organization whose mission is to provide young people with practical economic education, develop their knowledge and skills.¹ The NGO offers subsidised education/training programmes for young people and teachers. In addition, it connects youth to companies, thereby contributing to employability of youth.

The Junior Achievement programme is considered successful for the following reasons:

• It empowers young people. Even if they do not become entrepreneurs, the programme allows to develop a variety of critical skills, such as communication, teamwork, organisational, critical thinking, writing etc.

Participation rate in the programme was high, due to successful promotion and trust to the NGO, which has a long presence in the community.

The Albacomp Innovation Centre: Stimulating cross-industry collaboration and innovative projects in IT ecosystems

The Albacomp Innovation Centre was established in 2014 in Székesfehérvár (a city in the Central Transdanubia region of Hungary).² The Centre serves as a business/innovation hub that stimulates R&D&I activities, offers the space for business development and commercial activities, education/training services and production facilities.³ Specifically, the Centre has a high-security server room, servers for cloud-based ASP services and high-performance network infrastructure. The provision of infrastructure and services was possible, due to the EU and national funding (4.8 mln EUR).

The Albacomp Innovation Centre has an agreement with the Alba Regia Technical Faculty (part of Óbuda Uniersity) to provide expert support and training activities.⁴ On a national level, the Agency for IT Development (KIFÜ) also supports the ICT sector and digitisation

¹ <u>https://jaczech.org/o-n%C3%A1s/p%C5%99%C3%ADnos-ja-czech/</u>

² <u>https://autopro.hu/en/news/albacomp-establishes-innovation-centre-in-szekesfehervar/230555</u>

³ <u>https://www.interregeurope.eu/good-practices/albacomp-innovation-centre-as-a-driver-of-the-local-creative-sector</u>

⁴ <u>https://projects2014-</u> <u>2020.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1515750305.pdf</u>

through infrastructure and funding projects.¹ Thus, Albacomp Innovation Centre and its members benefit from various support structures and synergies between them.

The Centre has been considered a success, due to its stimulation of cross-industry collaboration and innovative projects that it generated. In addition, the Centre stimulated knowledge sharing and contributed to the expansion of the local entrepreneurial and IT ecosystems.

¹<u>https://kifu.gov.hu/en/main-page/</u>