

PILLARS DESCRIPTION

PILLAR 1: DIGITAL SKILLS AND PUBLIC SECTOR

PILLAR COORDINATOR: Ministry of Administrative Reconstruction

<u>FIELD</u>	<u>OBJECTIVES</u>
<i>Priority 1: Enhance Public Administration capacity towards promotion of e-skills of civil servants as a key enabler for the digital transformation of Public Sector</i>	SO 1: Developing innovative culture and skills in the public administration. SO 2: Promoting data driven decision skills in Public Sector and Industry. SO 3: Administrative Processes Reengineering and Digitization of Public Services.
<i>Priority 2: Development of a learning mechanism that will offer free online courses for civil servant's digital skills and e-Leadership development</i>	SO 4: Promoting advanced Digital Skills in Public Sector

Priority 1: Enhance Public Administration capacity towards promotion of e-skills of civil servants as a key enabler for the digital transformation of Public Sector

SO1: Developing innovative culture and skills in the public administration

Ministry of Administrative Reconstruction participates to the OECD groups for the innovation as a member of the Public Governance Committee and the Observatory of the Public Sector Innovation. Furthermore, the Ministry is responsible to promote innovation in the Greek public administration providing a

collaborative ecosystem of experimenting, sharing and promote bench learning from solutions in administrative tools, processes and skills.

Within this context, in order to aspire civil servants with innovative culture and skills to develop and upscale innovation, there will be initiatives to support change management and enable public administration to acquire expertise to make smarter use of people, data and technology and lead with new ideas to improve user's engagement and deliver services with greater impact.

A National Strategy on Public Sector Innovation will be designed, which will aim at the support of *the national innovation policy, towards a more effective, better directed and tapping from the widest range of sources, development of innovative skills and tools.*

Proposed Actions

Action 1: *Innovation Hub and Innovation e-Learning Platform*

In order to accelerate innovative initiatives towards digital transformation and e-skills, the innovation hub will be developed as a collaborative ecosystem between public organisations ***at central, regional and local level***, to promote networking and science-based growth through co-innovation, create links between ***academic researchers, public organisations and civil servants and promote openness to end users to provide solutions in order to*** accomplish our target for better and more effective use of existing resources and build a more evidence-based as well more experimental innovation policy.

Additionally, this innovative hub, will promote innovation process through e-learning, at a first phase within public service leadership and at a next step to the other civil servants. The scope is to provide civil servants an open work space, through e - learning tools, to design innovation projects in a better accessible and more inclusive way. The scope is to learn civil service, to generate new ideas and develop innovative tools and methods.

Action 2: Innovation Policy Lab Events

As public administrations are moving from a relatively closed and stable environment towards a more open ecosystem, it is important for the Public Sector Organisations to create an open to new ideas environment in order:

- **Public service to anticipate technology challenges in a more effective and responsive way through innovation**
- **Create stable mechanisms in different levels of public administration to promote cross-fertilisation of innovative culture to public servants**
- **Develop a collaborative ecosystem to provide a friendly to research and experiment environment for the Public Sector.**

Such an environment can be achieved with the development of experimentation and innovation policy labs, in the 13 regions of the Greek State which will bring together leadership, public administration employees, academics and civil society and act as an accelerator to create favorable conditions for the promotion of digital skills needed to identify shared areas of interest and practice so that to build administrative capacity to design and implement joint activities in the area , of Public Governance Innovation

Milestones – Critical points.

- *National Strategy on Public Sector Innovation*
- *Innovation Hub & Innovation E-Learning Platform*
- *Innovation Policy Labs in 13 regions*

SO2: Promoting data driven decision skills in Public Sector and Industry

Open data policy constitutes a priority in the Greek Public Administration. This policy serves two main purposes: first, to enhance transparency and accountability of the public sector by making public sector data available and easily accessible and second, to boost the economic growth by contributing to the creation

of new jobs and encouraging investment in data-driven sectors, by using open data as raw material to develop value – added service.

In line with the aforementioned purposes, open data in public sector bear significant benefits both for public administration and for citizens and enterprises. Indicatively, the benefits for public administration include the reduction of administrative burdens, the re-use of information as well as the positive impact on GDP and tax revenue by the increase of the economic activity. Similarly, the main benefits for the citizens could be the increase of transparency and accountability, the boost of RnD and the creation of new enterprises and job positions. For all those reasons, Greek civil servants open data capacity building is crucial in order to reap the aforementioned benefits.

Proposed Actions

Action 3: *Open Public Data*

The Ministry will be fostering the Open Data framework through a set of skill related actions so that civil servants across public sector and of course the industry, acquire the skills needed to make use of data, license it and make it an integral part of production and decision making. To this end a series of workshops are being planned aiming both at public sector and industry.

1. Organisation of workshop with stakeholders bearing a crucial role in the re-use of public sector datasets (academia - Civils Society Organisations, Chambers)
2. Organization of one-day seminars regarding the implementation of open data policy in the following cities
 - Alexandroupolis: This event will cover the needs of 22 municipalities from Eastern Macedonia and Thrace
 - Kozani: This event will cover the needs of 12 municipalities from Western Macedonia.
 - Thessaloniki: This event will cover the needs of 38 municipalities from Central Macedonia.

- Ioannina: This event will cover the needs of 18 municipalities from Epeirus.
- Patra: This event will cover the needs of 19 municipalities from Western Greece
- Tripolis: This event will cover the needs of 26 municipalities from Peloponissos
- Larissa: This event will cover the needs of 24 municipalities from Thessaly.

Action 4: Open Public Data Awards and “Hackathons”

A crucial aspect of open data capacity building is the dissemination of best practices and innovations both in public and private sector. To this end Open Public Data Awards and “Hackathons” will be organized.

1. Organisation of one-day event to award best cases in the use of public sector datasets by the private sector through developing innovative applications by the use of public sector datasets through www.data.gov.gr.
2. Organisation of one-day event to award best cases in the implementation of open data policies by the private sector organisations through developing innovative ways of implementing open data policy with positive social and economic impact .

Milestones – Critical points.

- *Survey on the increase of data driven decision making through the reuse of open public data.*
- *Measurement of the effectiveness of the relevant actions regarding the promotion of open data skills and corresponding review of them.*

SO3 : Administrative Processes Reengineering and Digitization of Public Services

The Division for the Simplification of Administrative Procedures and the Provision of Services to citizens has the competence, among others, for the policy making and the implementation of **horizontal** burden reduction policies. As regards

E.U policies related to burden reduction, this Division co-ordinated the adoption of simplification measures (such as lifting of specific restrictions for practicing service providing professions, implementation of the “silence is consent” rule, abolishment of a number of certificates etc.) proposed by the Directive 2006/123/E.C. (articles 5, 10), for procedures related to service provision. Simplification and burden reduction objectives of the Directive have been met up to a high percentage. The main goal now is the further simplification of the above mentioned procedures and for achieving this we have already proposed the implementation of a project, co-financed by EU. One of the deliverables of this project is a study of the standards needed for the overall intercommunication between KEPs-EKE and the competent authorities, via EU-GO portal, which is the Point of Single Contact -PSC in Greece.

Proposed Actions

Action 5: Study on EU-GO Platform – Enhance interconnections

The outcome of this study of the above mentioned project will lead to the redesigning of EU-GO portal as it will reveal the standards for the development of IT systems in public sector’s bodies communication and interoperability. Surely, this will enhance the digital transformation of public services and the obtaining of digital skills of the civil servants. Further, follows the implementation and the productive operation of the new portal and many activities will be delivered, such as manuals, workshops and trainings.

The redesigning of the portal will upgrade the digital skills of the public servants, taking into consideration that at the time being there is no intercommunication and interoperability between competent authorities (KEPs and licensing authorities). Specifically, all administrative procedures delivered through KEPs-EKE are not digitalized except of the on line application.

Training programs on the redesigned EU-GO portal is the essential and crucial factor for the productive operation of the new portal and they will be carried out for KEPs operators, as well as public servants of the licensing authorities, such as municipalities and regions.

Action 6: Electronic/ IT based retrieval (ex officio search) of supporting documents by public agencies

Article 12 of Law 4325/2015 FEK(Official Government Gazette) 47/A'/11-05-2015 by which ex officio search has been extended to include all certificates that are issued by public services, local authorities and public law bodies/entities as supporting documents for the issuance of an administrative act. Ex officio search is now further supported by the use of services of Electronic Government. The measure applies to both businesses and citizens.

The aforementioned legal framework promotes interoperability and interconnection among public authorities' IT systems. This is expected to lead to the improvement of electronic (on-line) citizen services. Additionally, the electronic ex-officio search has to do with retrieval of information rather than with acquisition of an actual certificate and safeguards.

However, beyond the existence of a sufficient legal framework and a vast number of developed IT systems in many Public Authorities/bodies, the degree of interoperability of IT systems among public services has not yet been satisfactory. Demand for supporting services of electronic government that will also boost competitiveness of Greek economy, makes it necessary to plan a relevant action.

For this reason our General Directorate aims to the development of a single application for the electronic ex-officio search (as a central point of service), that will inter-operate with all IT systems of Public Administration and certificates will be issued electronically.

In parallel with the full operation of this application, training programs will be conducted for the authorized users (two or three from each public body) in order to improve their digital skills and performance, while working on the new interface. Furthermore, other activities will be delivered, such as manuals and workshops.

A final remark that emerges from one of our General Division's studies is that issuance of more than 2.5 million certificates per year will be replaced by electronic ex-officio search of interoperability that becomes fully functional among:

- Citizen registries (Dimotologia, lixiarcheia)
- Social Security Authority (Eniaios Foreas Koinonikis Asfalis)

- Manpower Agency of Greece (Organismos Apascholis Ergatikou Dynamikou - OAED)

Action 7 : New innovative e-government services to citizens and enterprises through KEP.

Citizen's Service Centers (CSCs or KEPs) have been created with the objective to simplify traditionally complex and bureaucratic procedures in the relationship between Government services and citizens.

The aim of this intervention is the digital evolution of KEP network in order to be ready to support new services in the digital age by taking advantage of technologies and infrastructures such as: document repositories, digital signatures, etc.

Currently, there are 1065 KEPs in operation in all municipalities providing their services to the citizens in the mainland of the country and the islands. The number of employees assigned to KEPs is in the range of 3000 (2514 of them in permanent positions instituted for the staffing of KEPs and a number of 500 to 1000 assigned into KEPs from other units within municipalities to enhance KEPs performance as needed). There is a need for those employees to acquire the necessary e-skills through training programs in order to perform their duties in the new digital environment of delivering services to citizens as described below.

The operation of KEP so far has demonstrated the necessity of a more friendly system for the Greek Citizens and enterprises based on the "Only Once" principle.

Currently, the KEP operation based on a large number of documents, identified in three million per year, that could be replaced by their digital forms and their search will no longer be subject of a significant administrative burden for citizens and businesses.

The approach of this project bases on a holistic approach instead of the individual processes that the current implementation supports and it starts with a significant number of certificates (three million) that will no longer burden the citizens and businesses but with a continuous expansion support, including related training but also awareness raising, both of civil servants and the citizens.

In this context, the KEPs should be strengthened with the necessary resources (eg. infrastructure, software, equipment) to be able to meet the evolution in the digital age and all our current actions aim to the establishment of new services that will be

addressed not only to citizens but also to the business, taking into account the basic transactional habits of citizens with the public but also the business lifecycle.

Priority 2: Development of a learning mechanism that will offer free online courses for civil servant's digital skills and e-Leadership development

SO4 : Development of Digital Skills mapping in Public Sector

The majority of public sector organisations are keen to adapt to the new ways of the digital world, however inertia and fear of is costing the public sector dearly. Public sector organisations such as KEPs, or the “Anti-Money Laundering, Counter-Terrorist Financing and Source of Funds Investigation Authority” should be the leaders by example when it comes to the adoption of a digital transformation, particularly as they are funded by the tax payer and there's an opportunity for significant cost savings to be realised. If public sector organisations - which play a vital role in underpinning the country's prosperity - don't have a competitive digital workforce then the threat to economic growth, productivity, and social mobility will continue to grow.

On this learning hub will be offered free online courses lasting approx. 4-8 weeks for civil servant's digital skills and e-Leadership development in order to:

- **Develop and enhance civil servant's practice based on Digital skills development.**
- **Get experts' feedback and share their experiences with governmental authorities.**
- **Connect with like-minded peers across Europe**
- **Reflect and discuss the role of technology in Public sector**
- **Feel empowered and inspired to try out something new in practice.**

In realizing the aforementioned actions as well as subsequent proposed actions that may arise, we suggest the following actions:

Action 8: Development and deployment of a National Digital Skills platform for Civil servants

In collaboration with OECD a digital skills initiative will be designed and implemented focusing on the capacity building of a number of Greek critical authorities towards to the digital transformation of the public sector. The objective of this institution will be to support and promote the Greek civil servant Digital capacity in every critical field. Within this mandate, it will offer consulting services to civil servants who wish to pursue digital skills as carrier path and will monitor progress made towards the engagement in this field. In addition it will establish cooperation with equivalent centers in other European states. On this learning hub will be offered free online courses lasting approx. 4-8 weeks for civil servant's digital skills and e-Leadership development.

Milestones – Critical points.

- *Co-design of new thematic courses in collaboration with Academia and international organizations including Career Guidance, Mentoring and Coaching.*
- *Survey on critical new governmental authorities that needs to include Digital skills in their operational capacity.*
- *Mapping of Digital Skills for Greek Public Servants.*

PILLAR 2: TRANSITIONING TO A DIGITAL ECONOMY TO PROMOTE GROWTH

PILLAR COORDINATOR: Ministry of Digital Policy, Telecommunications and Media

<u>FIELD</u>	<u>OBJECTIVES</u>
<i>Priority 3: Creating & Fostering Employment Conditions and Structures for Digital Talent within organizations</i>	<i>SO 5: Developing digital skills to enable all citizens to be active in digital society</i>
<i>Priority 4: Up-skilling Small and Medium Enterprises with Digital Skills</i>	<i>SO 6: Developing high-level digital skills for professionals in all industry sectors.</i>

Priority 3: Creating & Fostering Employment Conditions and Structures for Digital Talent within organizations

SO 5 : Developing digital skills to enable all citizens to be active in digital society

One of the most important goals of the National Digital Strategy 2016 - 2021 is skills development aiming to unlock leapfrogging opportunities for a digital Greece. The relevant section for human capital improvement with Digital Skills focuses on research, the Greek school system and the Life-Long Learning actions advocating: “The human factor is the driving force for the development of the digital economy and the incorporation and diffusion of its benefits into Greek society and

economy. In addition to the field of the economy, digital skills are the tool for participation on equal terms by all citizens, in all areas of human activity that are constantly enriched through ICT. The reinforcement of the digital skills of human resources must be continuous and should monitor technological developments, since:

- **It creates the appropriate platform for the development of entrepreneurship in the digital economy,**
- **It is a driving force for the digitization of traditional business and economic activities,**
- **It supports research and innovation in ICT and is the basis for the creation of start-ups,**
- **It transfers the benefits of growth to the rest of the economy,**
- **It creates the conditions for equal participation in the new environment that is shaped by the constant evolution of ICT and the diffusion of benefits across society.”**

The first phase of the campaign -to be implemented over a week - calls for awareness and educational events labeled “Digital Technology Week”. The series of events enhance interplay between digital technologies and the public through a learning platform by offering e-classes, workshops, oral presentations, teleconference sessions and round table Q&A sessions. The sessions are mostly held in remote/rural locations, where the “Rural Broadband” project has recently enabled broadband connections. The educational parts are available online for all to follow while the on-site events are necessary to spread the word in areas where digital technology use is still unknown.

The second phase will target the population at large. The “Get digital skills” initiative is comprised of programmes available via distance learning methodology, due to start in the winter of 2017. The Short Learning Programmes (SLPs) focus on the learning outcome and lead to developing digital skills to enable all citizens to be active in our digital society, enhancing digital skills for the labor force by developing digital skills for the digital economy and developing high level digital skills for ICT professionals in all industry sectors. The courses will be available in the form of enhanced video tutorials combined with certified digital, multimodal and interactive

educational material, utilizing Learning Management Systems and MOOCs, designed by HOU.

For both initiatives, special attention has been given to ensure close collaboration between regional and national contributors. In addition, special attention has been given to inspire elderly non-digital citizens to get involved in the digital world. A pool of grants is being established to help develop local and regional educational/training initiatives. Plans are also under way to develop national Key Performance Indicators (KPIs) of digital competence and digital inclusion.

Proposed Actions

Action 9: “Digital Technology Week”

A series of events that enhance interplay between digital technologies and the public through a learning platform by offering e-classes, workshops, oral presentations, teleconference sessions and round table Q&A sessions. It is held in remote/rural locations, where the “Rural Broadband” project has already enabled broadband connections.

The events aim to inform participants about the benefits of broadband connectivity and digital skills. It actively involves local communities and includes several components:

- Showcasing effective uses of broadband, the educational sessions address various audiences, i.e. pupils/students, adults, e-entrepreneurship, and they provide people with basic digital skills used in everyday life and the workplace.
- For the hybrid e-learning sessions, students use an e-learning system with the assistance of an on-site tutor.
- Teleconference sessions include conferences with doctors and physicians, displaying applications of tele-medicine and e-health.
- Teleconferences set up communication among different communities.

- Round tables offer Q&A sessions which are held in public places, with the participation of experts who present digital technologies with the public.

- Hackathons and digital competitions will soon be added.

The first event took place in July 2017 at Pentalofos in Kozani, a village in Western Macedonia; 30 more rural locations are scheduled to host the event in the near future.

Action 10: “Get digital skills for all”.

Short Learning Programmes (SLPs) developing digital skills to encourage people to be active in our digital society.

Action 11 : Digital Skills Mapping

As the transition to a digital economy requires new skills, capability assessments and employment forecasts will be essential to map the roadmap to the digital economy and society. However, benchmarking has proven difficult due to insufficient data. The last comprehensive nationwide statistical data was produced in 2007 when the nationwide survey for the so called InfoSoc took place. Qualitative studies about the usage of social networks as well as e-commerce are sporadically published by academic institutions and some industry leaders. Ad hoc and sector-specific studies have been carried out in Greece, mostly to determine the skill requirements for professions in digitally enhanced sectors. There is a definite need to systematically map and understand what exactly is taking place in the marketplace, to ensure that each labor force category, can in fact be given the right tools to flourish in the digital economy.

Another crucial reason to study if the Greek population at large is already “digital” is social media usage where statistics relate to everyday use. Such data points to more “informal” learning and experiential usage. It also points to specific type of literacies across sectors. While quantitative statistics about access to tech

infrastructure is scarce and outdated, at the same time confirms there is a divide, where informal learning and skill development seems to have taken place in the last 10 years. Social media data indicates that Greeks on the whole use Facebook, where approximately 5 million are active users. Sporadic studies also show that the age divide has been bridged by informal practices. In conclusion, we need to benchmark what skills Greeks have developed, and also study the existing skill set and how it fits in with the literacies in question. We aim to bridge the gap between existing practices and certification. In general, the Ministry has designed a set of policies that will lift the barrier of the digital divide between the so called “typical” and unofficial skill acquisition process.

Milestones – Critical points.

- *Design of new Actions in collaboration with HOU.*
- *Survey on Level of Attractiveness to Digital Skills and e-Leadership for all involving governmental organizations*

Priority 4: Up-skilling Small and Medium Enterprises with Digital Skills

SO 6 : Developing high-level digital skills for professionals in all industry sectors.

Data Ready Programme

The Data Ready funding policy is a larger set of policies that form Greece's National Data Policy. Within the wider designed framework, the Ministry will launch the “Data Ready Programme” targeting industry workforce to make sure that everyone can participate and learn new skills, promoting inclusive labor markets and to spur innovation, productivity and growth. Courses that lead to certification will be introduced, ensuring easy access and availability.

Proposed Actions

Action 12 : “Get digital skills for all”.

Short Learning Programmes (SLPs) developing high level digital skills for ICT professionals in all industry sectors.

The courses will be available in the form of enhanced video tutorials combined with certified digital, multimodal and interactive educational material, utilizing Learning Management Systems and MOOCs, designed by HOU. As part of the EC's Digital Skills and Job Coalition, HOU is actively involved in aspects of educational strategy, skill requirements analysis and skills assessment, and preparation of targeted Short Learning Programmes, adopting EADTU (European Association of Distance Teaching Universities) principles; learning outcomes map to skills, teaching/learning is based on embedded scaffolding, using nano-units and accreditation regulated by the ECTS scheme. "Get digital skills" e-learning classes are due to start end of 2017.

Action 13: Blockchain technologies evaluation

The Ministry is ambitiously looking into the setting up of a new regulatory function with the primary objective of harnessing the technology with a legal operational framework, serving as a bold initiative leading to the formation of an ideal ecosystem for those willing to invest in blockchain technology. A "Blockchain Taskforce" will take steps to establish a national strategy to develop the disruptive technology as a catalyst for growth. The taskforce will foster an open dialogue to develop innovative and disruptive projects.

Applications envisaged at this point include digital payment systems, fraud detection, smart contracts, smart ID systems and even micro-certifications for skills; HOU for example, in cooperation with the Ministry, proposes to proactively work on standards facilitating blockchain-enabled interoperable data repositories for micro credential in education.

Milestones – Critical points

- *Co-design of new thematic courses in collaboration with Academia and international organizations including Career Guidance, Mentoring and Coaching.*
- *Survey on critical new governmental authorities that needs to include Digital skills in their operational capacity.*

PILLAR 3: ENHANCING DIGITAL SKILLS THROUGH EDUCATION

PILLAR COORDINATOR: Ministry of Education, Research and Religious Affairs

<u>FIELD</u>	<u>OBJECTIVES</u>
<p><i>Priority 5: Promote Digital Skills in all Educational levels and Life Long Learning.</i></p>	<p><i>SO 7: Encouraging student's engagement in STEM related fields.</i></p> <ul style="list-style-type: none"> • Support innovative STEM teaching and to try to find a way to have a cross-curricular activities as well as hands-on and project-based activities which could then integrate these innovative activities in the curriculum. • Early age development and support of the primary school level students with digital skills. <p><i>SO 8: Encouraging adults for a Digital Skills engagement.</i></p> <ul style="list-style-type: none"> • Targeted Programmes for the Lifelong Learning Centres aiming to the improvement of adult's digital skills. <p><i>SO 9: Upgrade of the digital school infrastructure on primary and secondary education level to improve digital skills of their students</i></p> <ul style="list-style-type: none"> • Support the learning process for the acquisition of digital skills and self-assessment of the students.
<p><i>Priority 6: Up-grading Greek teachers' skills</i></p>	<p><i>SO 10: Supporting Greek Teacher to promote their Digital Skills in classroom.</i></p> <ul style="list-style-type: none"> • Training of Teachers for the utilization and application of ICT in the teaching practice.

<p><i>Priority 7: Promoting e-skills through RTDI activities</i></p>	<p><i>SO 11: Promoting Digital skills through engagement in RTDI activities</i></p> <ul style="list-style-type: none"> • Support collaborative RTDI projects between enterprises and Public Research Centers (PRC) as well as Higher Education Institutions (HEI) • Establish specialized competence centers, Digital Innovation Hubs and clusters • Promote recruitment of highly qualified personnel in enterprises to conduct research for the development of innovative products/services • Enhance extroversion of enterprises through participation in bilateral and transnational RTDI cooperation
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Priority 5 : Promote Digital Skills in all Educational levels and Life Long Learning.

SO 7: Encourage student’s engagement in STEM related fields.

Action 14: STEM – Labs in Greek Schools

Program that concerns the development of innovative technology laboratories in schools of primary and secondary education level across the country.

The main purposes of the digital open standards equipment are:

- improving basic skills in science, technology and digital competence of students of primary and secondary education
- the use of ICT in primary and secondary education
- create the conditions for learning motivation and initiative
- the acquisition of basic life skills enhancing self-esteem, confidence and sociability through group-collaborative actions
- improving basic knowledge and life skills needed in a rapidly changing socioeconomic environment

Action 15: "Certification of secondary school students in ICT".

Student's Training Program in order to acquire Digital skills by the completion of compulsory education assessment.

SO 8 : Encouraging adults for a Digital Skills engagement

Action 16: Programs for the Lifelong Learning aiming to the improvement of adult's digital skills

Student's Training Program in order to acquire certified Digital skills by the completion of compulsory education assessment.

SO 9 : Upgrade of the digital school infrastructure on primary and secondary educational level to improve digital skills of their students

Action 17: Development of a National Digital Educational Platform.

Development of the National Digital Educational Platform, which includes digital Educational materials that support the learning process for the acquisition of digital skills and self-assessment of the students. Support the learning process for the acquisition of digital skills and self-assessment of the students.

Action 18 : Upgrade of the digital school infrastructure on primary and secondary schools

Implementation of a project in order to upgrade the digital infrastructure on primary and secondary education level schools.

SO 10 : Supporting Greek Teacher to promote their Digital Skills in classroom.

Action 19 : In-Service Training of Teachers for the utilization and application of ICT in the teaching practice

A certification action of (A- level) basic ICT skills and of (B- level) advance ICT skills is provided with Training of Teachers for the utilization and application of ICT in the teaching practice.

SO 11 : Promoting Digital skills through engagement in RTDI activities

Action 20: Promoting Digital skills through engagement in RTDI activities

- Support collaborative RTDI projects between enterprises and Public Research Centers (PRC) as well as Higher Education Institutions (HEI)
- Establish specialized competence centers, Digital Innovation Hubs and clusters
- Promote recruitment of highly qualified personnel in enterprises to conduct research for the development of innovative products/services
- Enhance extroversion of enterprises through participation in bilateral and transnational RTDI cooperation

Milestones – Critical points.

- *Design of new Actions in Primary and Secondary Education*
- *KPIs: Measurable improvement in STEM aspects monitored, such as Level of Attractiveness to STEM Talent, Engagement, Participation of students in seminars, from Year 1 to Year 3 of implementation*
- *Policy-making recommendations for the development of appropriate supporting ICT infrastructure and policies on each Educational level.*

PILLAR 4: PROMOTING DIGITAL TALENT TO GREEK LABOR MARKET

PILLAR COORDINATOR: Ministry of Labor, Social Security & Welfare

<u>FIELD</u>	<u>OBJECTIVES</u>
<i>Priority 8: Mapping Digital Skills Data on Greek labor market.</i>	<i>SO 12: Bridging Gap – Creating a National Mechanism for Mapping and Growing Digital Talent</i>
<i>Priority 9: Creating & Fostering Employment Conditions and Structures for Digital Talent within organizations</i>	<i>SO 13: Collaboration with businesses and sectoral organizations to identify and address the needs of businesses in digital skills</i> <i>SO 14: Horizontal Actions of guaranteed employment or training, including digital skills training</i>
<i>Priority 10: Up-skilling Small and Medium Enterprises with Digital Skills</i>	<i>SO 15: Digital Skills Labor Force for SME's Digital Transformation.</i>

Taking into account the results of the work of the Digital Skills Sub-Working Group¹, the relevant actions implemented by the Ministry of Labor are as follows:

With regard to the action of the Digital Skills Upgrade Plan (Action 2.1.1. Creation of a National Mechanism for Mapping and Growing Digital Talents),

Also, The Ministry of Labor has already developed partnerships with sectoral organizations to identify business needs in digital skills and implements relevant

¹ A concept for tackling the digital skills challenges in Europe.

training programs (such as the program for training 3000 new 18-24 years in ICT, in detail below).

In order to tackle youth unemployment, halting the phenomenon of brain drain migration, filling jobs with skills in the labor market, the following actions are already in place or will be implemented in the near future.

Priority 8 : Mapping Digital Skills Data on Greek labor market.

SO 12: Bridging Gap – Creating a National Mechanism for Mapping and Growing Digital Talent

Action 21: Mechanism for diagnosing labor market Digital Skills' needs

The mechanism will provide an assessment of the following:

- Real time Demand and Supply Mapping of critical skills clusters
- Barriers to talent
- Best practices for bridging Digital talent

In Greece labor market data is provided by the Mechanism for Diagnosing the Needs of the Labor Market, which was instituted by Law 4368/2016. The Mechanism systematically draws, processes and manages data from the Labor Force Survey (ELSAT), OAED, the payroll flows from the information system of the Ministry of Labor ERGANI, and secondary data from surveys and studies on the labor market (inputs) and produces results on the dynamism of the professions and industries. For the professions in particular, results are produced at a three-digit level of ISCO - 08 classification and for the branches of economic activity at a two-digit and three-digit classification level. The results reports are produced at regular intervals and posted on the official website of the Ministry of Labor (www.ypakp.gr) of the National Institute of Human Resource Development (www.eiead.gr) and the OAED (www.oaed.gr)².

² http://www.eiead.gr/publications/docs/Executive_summary_2016.pdf

http://www.eiead.gr/index.php?option=com_content&view=article&id=342&Itemid=222&lang=el

Coordination for the deployment of the Facility is the responsibility of the Employment Department of the Ministry of Labor and the scientific responsibility for the development of the mechanism is the FDI.

The main objective of the Mechanism for the Diagnosis of the Labor Market Needs is the regular and reliable provision of the state with data and assessments that contribute to the strategic planning of employment policies, vocational education and training policies, apprenticeship, and in general development of human resources.

The annual report drawn up by the Agency, together with the information directly provided by employers' requests and the specific training needs such as the maintenance and development of traditional professions and the country's development prospects as identified in the National Strategy for Development, provide a source of information for policy design.

At the same time, the Report provides information to the whole of Greek society (citizens' information, professional orientation of young people, re-orientation of the unemployed).

According to the Mechanism Reports (December 2015, June 2016 and December 2016), one of the most dynamic sectors of the economy is the Telecommunication / IT Services. In particular, the high demand for telecommunications / information technology (ICT) services, the multinational character of the companies operating in the sector, intense competition and the continued liberalization of the market remain key features of the ICT industry. These should include the modernization of public and private services, the development of high-speed broadband networks through fiber optic networks, and the cooperation programs between private companies, universities and technology institutes to help develop innovative products.

Under the mechanism, the Ministry of Labor cooperates with CEDEFOP in the "Governance of EU skills anticipation and matching systems: Country Review" program (March 2017-October 2018). The main parameters of the cooperation and its expected results relate to three priority thematic areas:

- Methodological support - tools and methods
- Improving the regulatory framework of the labor force governance system by coordinating and cooperating with the relevant national bodies
- Making use of the results of the diagnosis mechanism when designing and implementing policies (active labor market policies, education and training, migration, etc.) while using international and European comparative examples.

In order to improve the forecasting and analysis of data on digital skills needs, within the framework of the operation and development of the Facility, there could be further specification of the results produced to identify the skills and professions required in the ICT sector, cooperation with the social partners and sectoral organizations.

Priority 9: Creating & Fostering Employment Conditions and Structures for Digital Talent within organizations

SO 13 : Collaboration with businesses and sectoral organizations to identify and address the needs of businesses in digital skills.

Action 22: Programs to strengthen the digital skills of the workforce and businesses

The composition and slow decline in unemployment highlight the need to place emphasis on lifelong learning and better matching workers' skills with labor market needs.

Supporting the unemployed through training programs that upgrading their skills and qualifications so that they can enter / re-enter the labor market is particularly important for all unemployed and low-skilled but also for those in need of re-employment re-skilling when the branches in which they are employed are not dynamic and their employment is not possible.

In the Strategic Framework for the Reengineering of Active Employment (June 2017), the country's digital divide in relation to the EU Member States is explicitly mentioned as a critical factor to be taken into account when designing active employment policies.

Action 23: Training program for 15,000 young people aged 18-24 in private sector enterprises in cutting-edge sectors of the Greek economy

The program, with a total budget of € 39.75 million, is aimed at graduates of secondary and post-secondary education, as well as graduates of universities / TEIs.

The program concerns subsidized training and internship in enterprises operating in the Retail, Logistics, International Trade (with emphasis on the primary sector and the Information and Communication Technologies (ICT) sector.

These pilot projects involving unemployed young people aged 18-24 combine (i) the theoretical training in core specializations based on enterprise-based study programs, (ii) workplace training, (iii) support and guidance services before, during and after training, and (iv) certification of acquired skills.

In ICT programs, sectoral organizations have opted for training providers on a competitive basis and with defined quality criteria.

The action is co-funded by the Youth Employment Initiative and is part of the National Youth Guarantee Action Plan.

The first results from the above programs show promising results in the employment of young people in their graduation, therefore the design of new training and work experience for youth can be based on the above examples of programs based on cooperation with sectoral organizations and combine training with placement in the workplace.

Action 24: Program "Training, certification and counseling aimed at strengthening the skills of 18-24 year-old unemployed in IT and communications"

In collaboration with the Hellenic Association of Information Technology & Communications (SEPE) and aims at counseling, training and certification of the professional qualifications of 3,000 unemployed and economically inactive young people aged 18-24, in IT and communications to equip them with the appropriate knowledge and skills to enter or re-enter the Greek labor market, workers in the potential of ICT sector.

SO 14 : Horizontal Actions of guaranteed employment or training, including digital skills training

To address the lack of demand for work, public-interest work programs play an important role in the Greek Government's strategy on Active Employment Policies, aiming at combating the unemployment of high-risk long-term unemployed and reconnecting them with the labor market, through the acquisition of professional experience and new skills. In 2016, welfare programs were redesigned and now focus on the unemployed as they link the job with upgrading its skills to enable its sustainable integration into the labor market. Redesign has now introduced optional IT training (once a week) in specialized training centers and certification of the level of knowledge gained.

Action 25: Program of Training, Certification and Guaranteed Employment of the unemployed in the top sectors of the Greek economy

The program involves continuing vocational training for 23,000 unemployed, aged 29-64, in sectors with growth prospects, as well as advisory support and certification of the knowledge and skills to be acquired under the action. The duration of the Program is 6 months in 10 dynamic branches of the economy and 60 specialties. Leading industries include information and communication technologies, commerce, logistics, infrastructure and technical professions, tourism, environmental management of solid and liquid waste, food and beverage. The action is co-funded by the European Social Fund.

Priority 10: Up-skilling Small and Medium Enterprises with Digital Skills

SO 15 : Digital Skills for SME's Digital Transformation.

Action 26: Targeted Actions for the up-skilling of Small and Medium Enterprises with Digital Skills

As mentioned in the analysis of the digital situation in Greece, Greece is lagging behind at European level in terms of maturity and readiness for adopting the Digital Transformation. Also, in terms of the degree of digital technology integration in enterprises, according to the European Digital Signage Progress Report (EDPR) for 2017, Greece is ranked 23rd among the 28 member countries of the EU. In view of the above, it is imperative to systematically and continuously encourage SMEs to technologically upgrade and transform their digital transformation, which is a key factor for survival but also a decisive factor for their development and the development of the economy.

The growth of the Greek economy cannot be achieved without the transition of Greek businesses from the traditional to a modern model of operation that exploits and integrates Digital Technologies, creating the appropriate conditions for access to new markets and increasing the purchasing audience to which they are addressed, identifying opportunities in an open and networked market, improving competitiveness, and rapidly adopting innovation at all stages of their operational functions.

In view of the above, and with the aim of assisting small businesses, a Support Action will be implemented for individual enterprises or groups of companies for the preparation and implementation of adaptation and restructuring plans, with priority being given to enterprises operating in the nine priority areas of the country (Agribusiness, Food Industry, Cultural & Creative Industries, Materials, Construction, Tourism, Energy, Environment, Health, Supply Chain).

In order to support them, businesses will submit a Digital Transformation Plan, which will also be a key element of evaluation.

Enterprise-level adaptation refers to organizational, operational and technological upgrading actions in the areas of security, process digitization, online presence, online sales of products and services, corporate internet promotion, support for adoption and expansion innovation management, etc.

These changes will be supported by the development of the Digital Knowledge and Skills of the company's human resources, in accordance with a specific training plan resulting from a systematic internal identification process of digital skills and knowledge needs. The total budget (Public Expenditure) of the Action amounts to € 75 million with an average eligible cost per Business of 50,000 and a Public Finance Rate of 50% (25,000).

By implementing this Action, there will be multiple benefits for both assisted businesses and their employees, and in particular:

For Business:

Improvement of organization and operation, improvement of the quality of services offered to partners, customers and suppliers, maximization of the possibilities for more efficient development of their work, creation of the conditions for strengthening the internationalization of enterprises, taking advantage of opportunities in an open and networked market.

For Employees:

Creating personal development conditions through the optimal use of their skills (development, or specialization of know-how as well as enriching their digital skills and knowledge, enhancing the sustainability and quality of their work, creating new jobs.

The action is in line with the Action Plan "Measures for Preparation and Management of Change and Restructuring" of the Ministry of Labor, Social Security and Social Solidarity to fulfill the conditional eligibility 8.5 of Regulation (EC) 1303/2013 and will be financed by the "Operational Program Competitiveness, Entrepreneurship and Innovation" (EPAVEK) 2014-2020

Action 27 : Training and Certification of Employees of ICT sector professions

The action, designed by SEPE, aims to implement training programs for selected specialties and certification of the acquired skills by accredited certification bodies to develop new skills and knowledge of 1,250 employees in the ICT sector in 13 regions of the country - all over Greece.

The duration of action is 70 hours/per person, which includes theoretical and practical training during the implementation of the action.

Action 28 : Consulting, Training, Certification and Promotion of Employment for unemployed people aged 25-29, graduates of Universities & Technological Educational Institute of ICT.

This action aims , according to SEPE, at implementing Vocational Counselling and Training, Certification of Qualifications, Promotion of Employment for 1,000 unemployed aged 25-29 years, Graduates of Vocational training programs, Universities & Technological Educational Institute of ICT sector in 13 regions of the country - all over Greece.

The duration of the action is 150 hours/per person, which includes theoretical and practical training and counseling during the implementation of the action.

Milestones – Critical points.

- *Policy-making recommendations on a national level*

PILLAR 5: INCREASING THE GREEK FEMALE TALENT IN DIGITAL JOBS.

PILLAR COORDINATOR: General Secretariat for Gender Equality

<u>FIELD</u>	<u>OBLECTIVES</u>
<i>Priority 11: Empower Women & Girls to Go Digital in Greece.</i>	<i>SO 16: Re-starting for the WGGD Pledge.</i>

<p><i>Priority 12: Better Employment Conditions for Female Talent with Digital Skills</i></p>	<p><i>SO 17: Up skilling Female labor force with Targeted Training activities</i></p> <p><i>SO 18: Innovation Hub for Women in Technology.</i></p>
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Priority 11: Empower Women & Girls to Go Digital in Greece.

SO 16 : Re-starting for the WGGD Pledge.

Action 29: Re-starting for the WGGD Pledge

There is a need for the **WGGD Pledge** to be re-started. The General Secretariat for Gender Equality, in collaboration with European Center for Women in Technology (ECWT), will set up a dedicated committee responsible to provide a European know-ledge-transfer based on best practices with the goal to increase in Greece women's new employability paths through digital skills, support tech startups and prepare for the launch of a new business innovation center in Athens by 2018.

SO 17 : Up skilling Female labor force with Targeted Training activities.

Action 30: Targeted Training activities a Digital Up skilling of Greek Female labor force.

The proposed training actions concern:

- ICT training, such as learning to acquire basic skills to meet the challenge of the Information Society and Communications.
- Exploiting the Internet to find information and work.
- Updating existing public digital services and exploiting e-learning.

- Exploiting ICT software and applications in the culture sector.
- Creation of workshops to produce ideas / proposals for the creation of innovative tools tailored to the needs of vulnerable populations.
- Training in e-entrepreneurship and social networking tools.
- Provision of corresponding certifications, which would be very useful in finding a job

SO 17 : Innovation Hub for Women in Technology

Action 31: Development of an Innovation Hub for Women in Technology

Monitoring the use of ICTs by women and men in the framework of the "Gender Monitoring Observatory" and the preparation of a relevant newsletter on a yearly basis.

Specialized actions for the development of digital skills for special population groups and IT and security training

Milestones – Critical points.

- *New WGGD Action Plan.*
- *Development of Methodology and Tools for Identifying, Screening, Selecting, Providing in-demand skills training and New Business Starter Support to female entrepreneurs, aiming to set-up or improve SMEs with an export activity*

Action 32: e-Leadership promotion for women in public sector

Promote e-Leadership for women in public sector. Developing *Career Days for Women in Public Sector* in the context of which women will encourage to design a carrier path based on Digital skills and e-Leadership approach.