Annual '18 Conference

Skills Adaptation/Anticipation and Labour Market Needs

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EARLALL's Skills & Labour Market Working Group

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Specific Sectors and Market Needs:

- ***Industry 4.0***: Automation in Manufacturing Technologies (cyber-physical systems, the Internet of things, cloud computing and cognitive computing)
- ***Soft skills*** for the workplace (communication skills, creative and critical thinking, problem-solving, resourcefulness, confidence, flexibility)

WP Main Challenges/ Objectives

- More employability of students and apprentices.
- More implication of the companies in each region.
- Innovation and improvement of students' competencies and training paths.
- Creation of a more global market place.
- Gender equality in the labour market.
- More mobile workers.

WP Concerns

- The rapidly changing markets.
- The needs not to be the same for all regions.
- Not the same degree of implication on the project by all the participating regions.
- Change of staff in each institution.

WP Next Steps

- To recollect each region's needs: *programme objectives* and indicators.
- To create a programme of *working visits*.
- To apply for *European funding* to achieve the WG objectives.
- To design a *working calendar* to achieve the objectives and indicators agreed.

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Thank you for your attention

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Skills anticipation & adaptation to labour market needs

EARLALL conference, Brussels

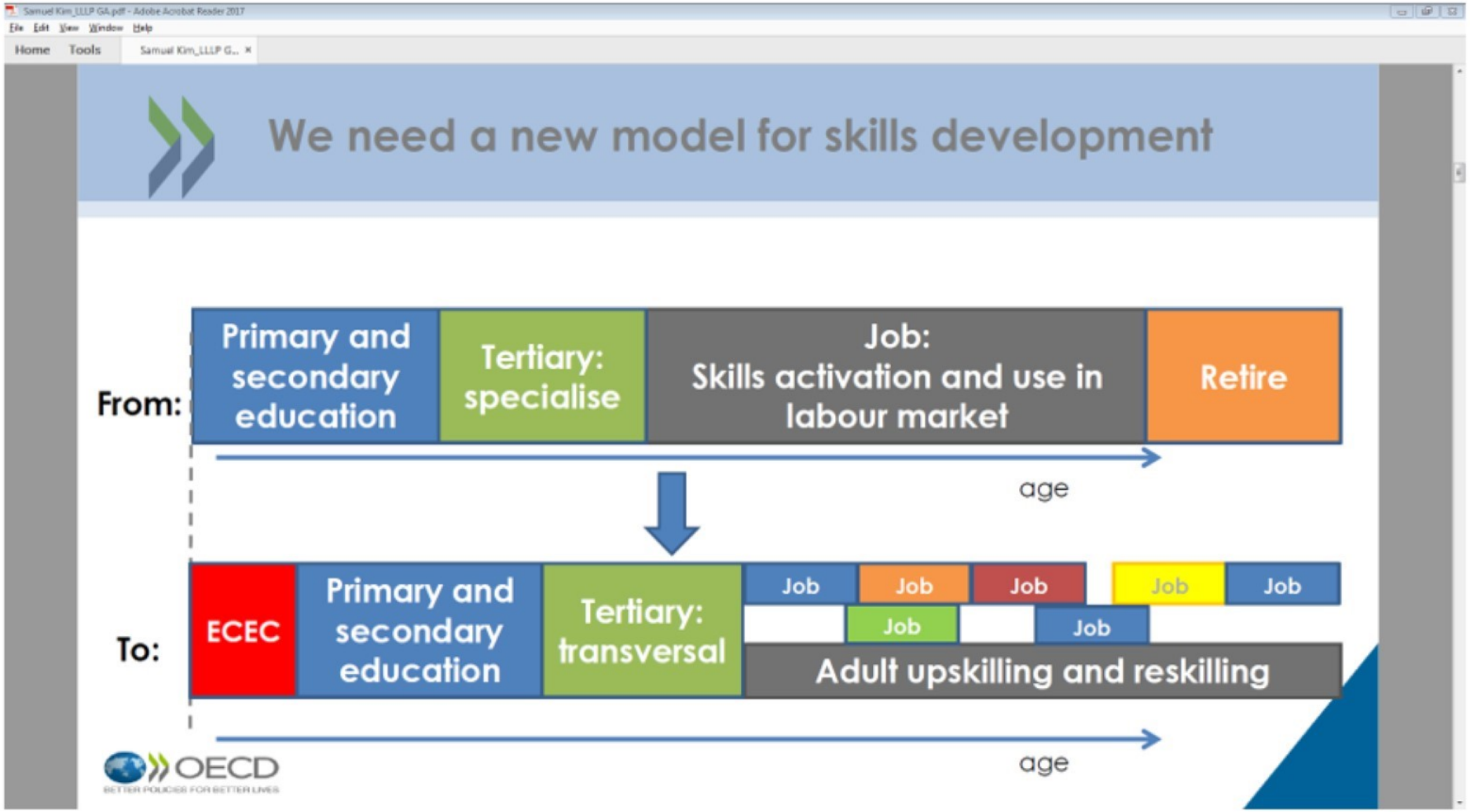
Brussels, 11 October 2018

Michael Horgan, Skills & Qualifications, DG EMPL

The main challenges we face

1. *Digital transformation, globalisation, robotisation, automation*
2. *Ageing and shrinking workforce*
3. ***Economy of transitions/Life Long Learning imperative***
4. *Skills mismatch*
5. *Polarisation*

A new model for skills development



EU Policy framework

- Importance of skills/human capital for the European semester
- Skills Agenda for Europe
- EU benchmarks for 2020 and the ET2020 framework

http://ec.europa.eu/education/policy/strategic-framework_en

- Parallel approach - Job-specific skills (Short Term) v Key competences (Medium to Long Term)

European Commission

NEW SKILLS AGENDA FOR EUROPE

Quality & relevance of skills

1. Upskilling Pathways
2. Key Competences Framework
3. VET as a first choice
4. Digital Skills and Jobs coalition

Visibility and comparability

5. Revision of EQF
6. Skills profile tool for 3rd country nationals

Skills intelligence

7. Revision of EUROPASS
8. Analysis of brain drain
9. Blueprint for Sectoral Cooperation on Skills
10. Initiative on graduate tracking

European Commission

Making VET a first or equal choice

DISCOVER YOUR TALENT!

European Vocational Skills Week
20 to 24 November 2017

Work-based learning in all its forms (including **Apprenticeships**)

Quality assurance, feedback loop between LM needs and VET provision

Access to training and qualifications for all in a LLL perspective (**C-VET**)

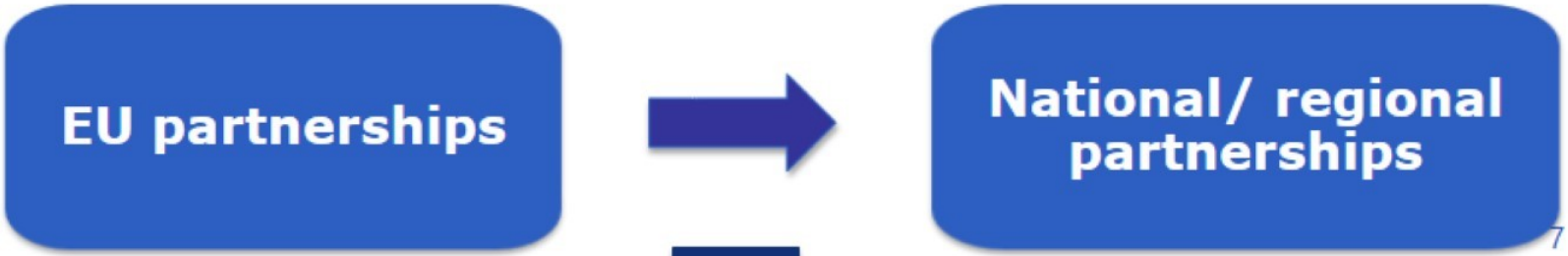
Strengthen **key competences** in both I- and C-VET, **including digital skills**

Professional development of **VET teachers and trainers**

Blueprint for sectoral cooperation on skills – 3rd wave sectors

Call for proposals Oct 2018

- Bio-economy, new technologies and innovation in agriculture
- Batteries for electro-mobility
- Defence technologies
- Digitalisation of the energy value chain
- Energy-intensive industries/industrial symbiosis
- Microelectronic manufacturing & design



European Commission

January 2018 update of the 2006 Key Competence Framework

Literacy competence

Digital competence

Entrepreneurship competence

Multi-lingual competence

Personal, social & Learning to learn competence

Cultural awareness & expression competence

Mathematical competence & competence in science, technology, engineering

Citizenship competence

The Digital Competence Framework

European Commission

DigComp's five key areas and 21 competences

INFORMATION AND DATA LITERACY	Browsing, searching and filtering data, information and digital content Evaluating data, information and digital content Managing data, information and digital content
COMMUNICATION AND COLLABORATION	Interacting through digital technologies Sharing through digital technologies Engaging in citizenship through digital technologies Collaborating through digital technologies Netiquette Managing digital identity
DIGITAL CONTENT CREATION	Developing digital content Integrating and re-elaborating digital content Copyright and licences Programming
SAFETY	Protecting devices Protecting personal data and privacy Protecting health and well-being Protecting the environment
PROBLEM SOLVING	Solving technical problems Identifying needs and technological responses Creatively using digital technologies Identifying digital competence gaps

Member State implementations Jan 2017

European Commission

TEACHER PROFESSIONAL DEVELOPMENT

E & T CONTENT /STUDENT ASSESSMENT

ASSESMENT FOR EMPLOYABILITY

POLICY SUPPORT, FRAMEWORK IMPLEMENTATION

POLAND

The Min. of Digital Affairs published a catalogue of digital competence frameworks for Digital Poland 2014-2020 referring to DigComp

ITALY

Italian Digital Agenda will translate and implement DigComp as part of its strategy

UNITED KINGDOM

Basic Digital Skills framework, created by GO UK, aligns with DigComp

MALTA

Use of DigComp by the Ministry for Education and Employment in Maltese "Digital Strategy "

GERMANY

A new strategy 'Education in the digital world' (Bildung in der digitalen Welt) builds on DigComp (+2 other frameworks)

NAVARRA, SPAIN

Navarra Department of Education uses DigComp as a key reference for strategic planning

BASQUE COUNTRY, SPAIN

Ikanos project developed by the Basque Government to deploy the Digital Agenda. Free DigComp self-assessment and training

ANDALUCIA, SPAIN

"Andalucia digital" offers free DigComp self-assessment and training for job-seekers

FLANDERS, BELGIUM

Dept. of Education use DigComp for a curricula review and development of adult education courses

REBIUN, SPAIN

The Network of Spanish University Libraries (REBIUN) uses DigComp to upskill students in 76 Spanish universities

FRANCE

PIX platform being developed by the Min. of Education to certify digital skills based on DigComp

EMILIA-ROMAGNA REGION, IT

Uses DigComp to re-design courses/materials in Pane e internet, an e-inclusion initiative

ESTONIA

From 2017 on, all 9th graders will be evaluated using DigComp

POLAND

Training for certification purposes based on DigComp provided by ECCC Foundation and ECDL in Poland.

LITHUANIA

Translation of the DigComp framework by the Education Development Centre. Used for Teacher PD

NORWAY

The Centre for ICT in Education uses DigComp as a references to develop a DigComp framework for the teaching profession

SPAIN

The Min. of Education, INTEF created Common Framework for Teacher Digital Competence based on DigComp. Use agreed between State and Regional governments

EXTREMADURA, SPAIN

Extremadura implements Teachers Digital Competence Portfolio based on DigComp

PORTUGAL

The Min. of Education uses DigComp as an input for teachers' PD. Translation by CIDTFF, supported by the MoE

CROATIA

e-Schools project by Croatian Academic and Research Network uses DigComp to support teachers

SLOVENIA

Translated by National Education Institute. DigComp used in assessing students in ICT

The Entrepreneurship Competence Framework

European Commission

European Qualifications Framework

translation grid for qualifications across the EU and beyond

The EQF Council Recommendation revised in May 2017
Monitored by the EQF Advisory Group

8-level **meta framework**

covering **all types and levels** of qualifications

defined in terms of **learning outcomes**

27 MS have already referenced their national frameworks to the EQF
19 MS are putting the EQF levels on certificates and diplomas
A total of 39 countries currently participate and have committed to the EQF

European Commission

VALIDATION

***Validation** means a <u>process</u> of confirmation by an authorised body that an individual has acquired learning outcomes measured against a relevant standard*

Identification → **Documentation** → **Assessment** → **Certification**

Labour market & skills intelligence activities in the EU – why?

- (LMSI) provides information on current and future labour market trends and skills needs

- Is the basis for informed decisions by policy makers, enterprises and individuals including at regional/local level

Labour market & Skills intelligence activities in the EU – why?

- What are skills needs and gaps by country/region, sector, occupation?

Pan-European skills forecasts carried out by CEDEFOP based on Eurostat LFS data (on EU Skills Panorama)

- What is the level of skills mismatches in the EU?

European Skills and Jobs Survey (CEDEFOP)

CEDEFOP SKILLS FORECAST 2018

Key facts: EU28

243 232 000
Employment in 2030

6%
Increase from 2016

0.4%
Growth per year

FASTEST GROWING SECTORS
Growth per year 2016-30

- Business & other services — 1%
- Distribution & transport — 0.6%

HIGHEST DEMAND OCCUPATIONS
Total job openings 2016-30

- 11 984 600 — Business & administration associate professionals
- 9 276 600 — Sales workers
- 8 710 160 — Cleaners & helpers

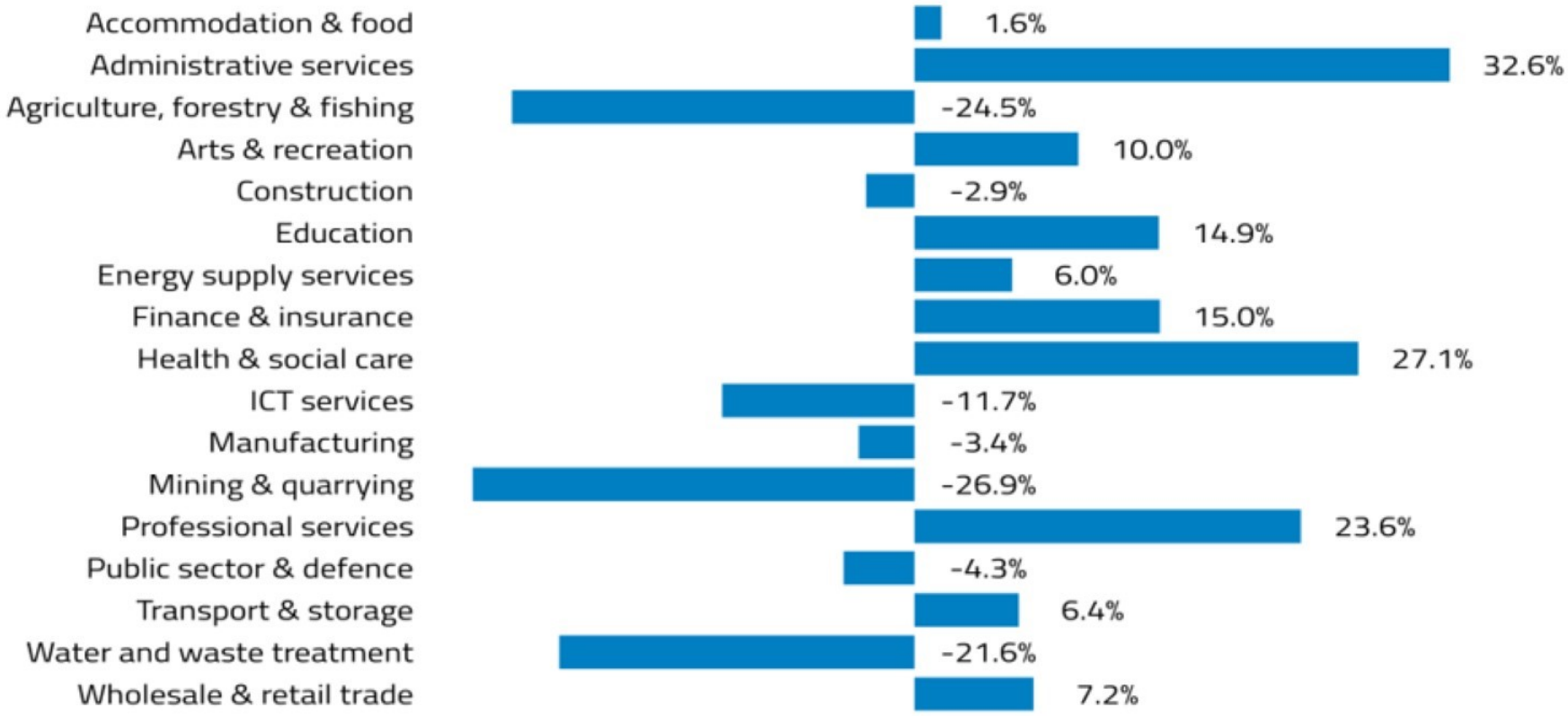
151 337 000
Total job openings, 2016-30

9%
will be created from new job openings

91%
will be created due to replacement needs

About 4 in 5 new job openings
will relate to high-skilled occupations

Future employment growth(%) in Italy in 2016-2030 across sectors

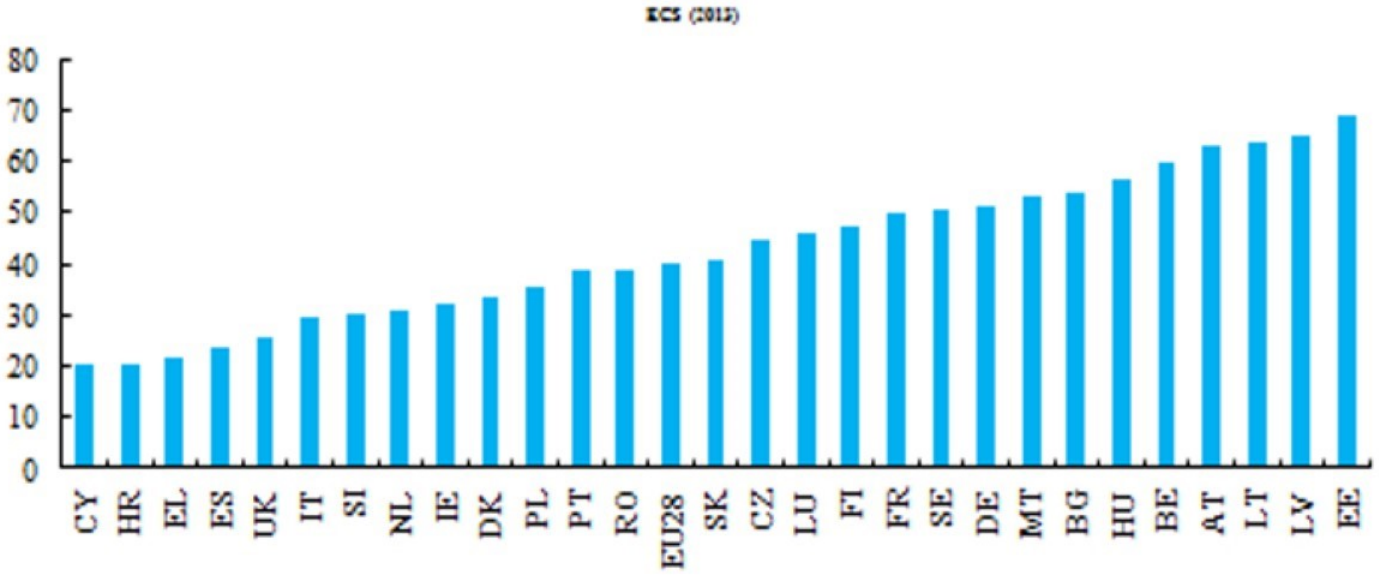


Labour market Skills intelligence activities in the EU – why?

- *What skills are companies looking for?*
- *Eurostat Continuing Vocational Training Survey*

- *How many employers struggle to find the skills they need?*
- *European Company survey by Eurofound (ECS)*
- *European Business and Consumer Survey (EBCS)*
- *Manpower Talent Shortage Survey*

% employers reporting difficulties in finding employees with the right skills



European Company Survey

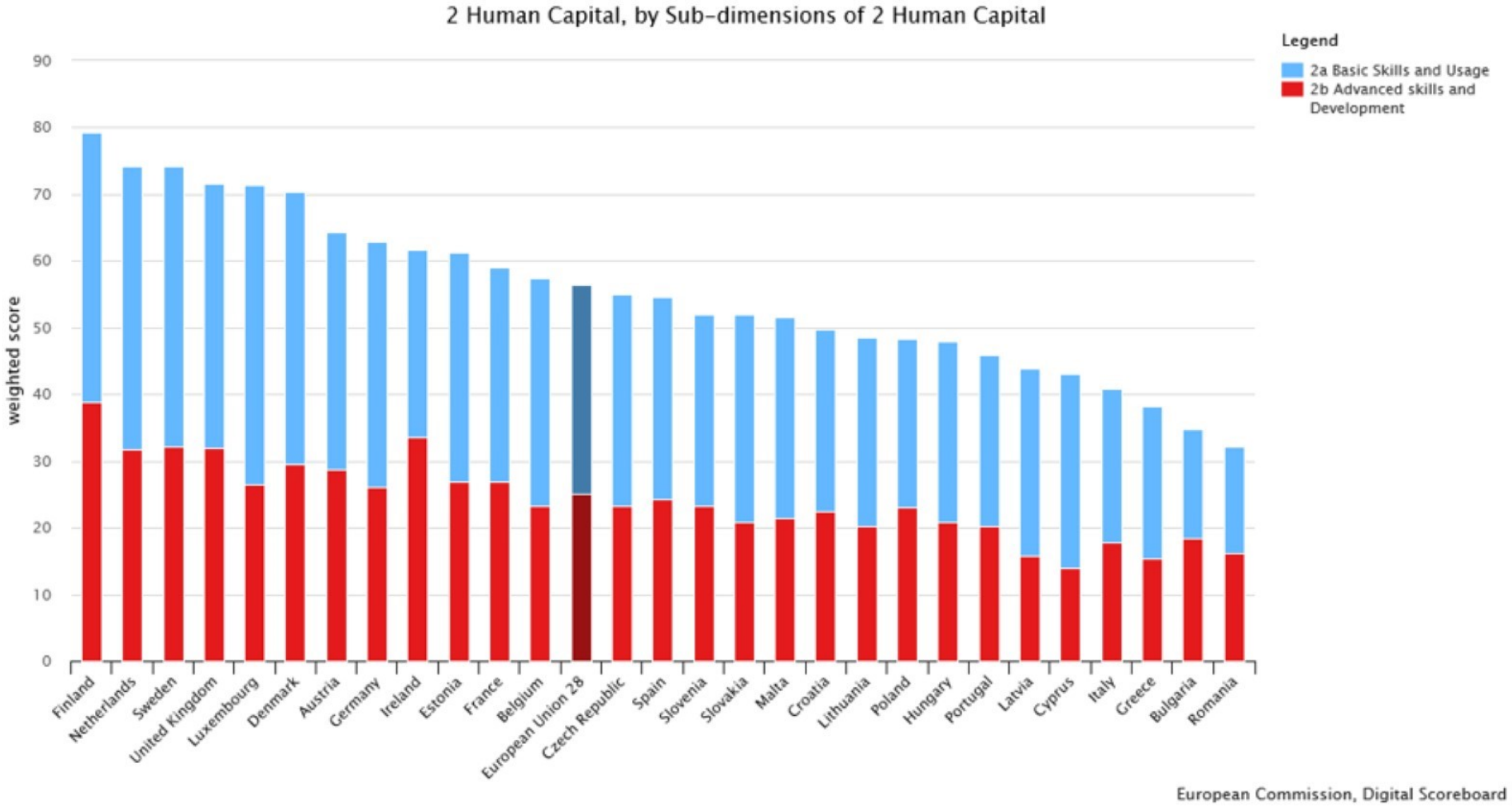
Labour market Skills intelligence activities in the EU – why?

- What will be the skills of the future (21st century skills)?

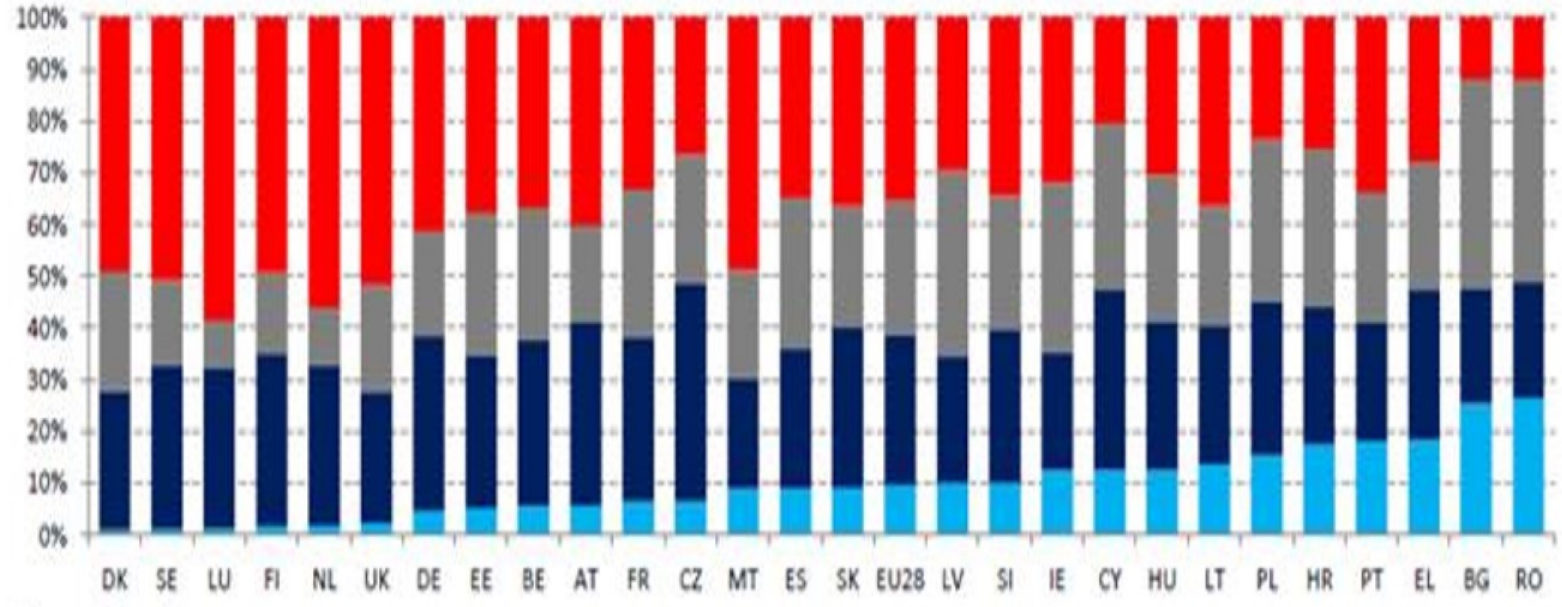
- Cedefop skills forecast, Big Data Analysis such as Cedefop's Real Time Labour Market project

-What is the level of digital skills in the EU and MS?

- Digital Economy and Society Index (DESI) – Human Capital Dimension – basic usage and advanced usage sub-dimensions


2 Human Capital, by Sub-dimensions of 2 Human Capital
Legend
2a Basic Skills and Usage
2b Advanced skills and Development
weighted score
90
80
70
60
50
40
30
20
10
0
Finland
Netherlands
Sweden
United Kingdom
Luxembourg
Denmark
Austria
Germany
Ireland
Estonia
France
Belgium
European Union 28
Czech Republic
Spain
Slovenia
Slovakia
Malta
Croatia
Lithuania
Poland
Hungary
Portugal
Latvia
Cyprus
Italy
Greece
Bulgaria
Romania
European Commission, Digital Scoreboard

Digital skills of the EU labour force, 2017 (% individuals, by skills level)*



Source: Eurostat

* Data not available for Italy

DESI Report 2018 – Human Capital

Regional and local skills intelligence

- *Regional Skills intelligence is important but needs to be further developed*

- *Data availability is a challenge*

- *Important that regional skills forecasting systems are comparable with national/EU level*

- *Maybe big data can help*

National Skills Strategies

to diagnose and address skills challenges in Member States – **regional dimension has been central e.g. in ES/IT**

Joint work by the OECD, the EC and the MS (E+ budget)
Based on the OECD Skills Strategy methodology
2 phases: diagnostic and action plan

Action plan phase	Diagnostic phase	Starting later in2018
• SI • PT (completed)	• IT (completed) • ES (completed) • AT (completed) • NL (completed) • **BE/VL**	• PL • LV

Skills Governance

balancing skills supply & demand to provide a sound skills basis for economic development

Clear institutional mechanisms

Involvement of stakeholders

Targeting different audiences

Shaping education & training offer

Assessment Anticipation → Transmission → Use

Effective statistical infrastructure

User-friendly information

Career guidance

ALMP

Incentives

Funding and the future MFF

- *The proposals upgrade the European Social Fund into a European Social Fund+ with an overall budget of around €100 billion, simplifying and increasing its effectiveness.*

- *More than doubling the size of a substantially strengthened, inclusive and extended Erasmus+ programme, further promoting learning mobility across the EU.*

Skills Adaptation/Anticipation and Labour Market Needs

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Specific Sectors: Processes and Tools

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“Bretagne Très Haut Débit”:

- A plan for deploying the optical fiber in Brittany (FTTH)
- All the local communities working together in the same issues :
  - economic development,
  - digital transition of traditional economy,
  - equal access to the publics services (health, care, learning…)
  - …

Main Needs, Challenges and Concerns

Deploying FTTH need many manpower while :

- New jobs - Poorly known by the public
- Low anticipation of companies
- An insufficient regional vocational training offer
- Lack of cooperation between companies and public authorities

Regional council of Brittany competent in territorial and economic development and **vocational training** is the assembler of all energies.

Main Needs, Challenges and Concerns

- **Think Global :**
  - Better knowledge of companies needs
  - Financial agreement between parties
  - Build a full training sector
- **Act Local :**
  - Developing an **attractive and reactive training offer** for companies / for people (custom training)
  - **Involve companies** (Before, during and after training) to attract people

Next Steps (FTTH)

- The needs of the companies will increase abruptly until 2022!
- Involve more and more companies
- Boost the VET in optical fiber and fasten it : the new VET Brittain Program. Improve the attractiveness of Brittany for vocational training.
- Prepare people's skills for the next step : mobile telecommunication network, maintenance of networks…

Next Steps

Use the « optical fiber's method » with others economic sectors :

- **Digital economy** needs more and more high level skills : find the way to upgrade unemployed people. And also tourism, transport…

- **Digital transition** :
  - means many new jobs, still unknown : support innovation in vocational training
  - A good opportunity to integrate low skilled people ?
  - Support vocational training center in their own digital transition

- **For all these aims** :

- Find better ways to work closer to companies
- Design more reactive and flexible devices

REGIONE TOSCANA

1968 2018 IRPET Istituto Regionale Programmazione Economica della Toscana

Skills Adaptation/Anticipation and Labour Market Needs

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Skills adaptation/anticipation in Tuscany Region

- Whitin the framework of Regional Law n. 32/2002, skills adaptation/anticipation is a high priority for Tuscany Region

Specific focus

Potential repercussions that technological innovations in the production process, commonly evoked with the term Industry 4.0, are producing and will produce in the future on the skills needed by the labour market

Skills adaptation/anticipation in Tuscany Region

- Analysis are developed mainly through IRPET, the Regional Institute for Economic Planning of Tuscany.
- On the basis of regional law, IRPET is responsible for:

a) Studying the region's socio-economic structure and its transformations, economic trends and relative analytical tools;
b) studying the regional territorial structure and its transformations and relative analytical tools;
c) studying methods for programming, assessing and checking policies.

Skills adaptation/anticipation in Tuscany Region

- In carrying out its activities, IRPET joins forces with Italian and foreign research centres, plays an active role in the network of regional research institutes and collaborates with:

  - Committee of the Regions, Universities, Enterprises,
  - UVAL DPS (Evaluation Unit of Public Investments, Department for Development Policies of the Ministry for Economic Development),
  - SVIMEZ (Association for industrial development in Southern Italy),
  - FORMEZ (Research and training centre for public administration), ISTAT (National Institute of Statistics),
  - Municipalities, Provinces, Ministries, Public Employment Services

Main Needs, Challenges and Concerns

INDUSTRY 4.0:

1. **Tuscan productive system is not yet considered by strong digitalization processes:** it does not know them, it is not able to bear the costs or it does not see the economic convenience. In fact, only a small proportion of companies express training needs consistent with the acquisition of digital skills
2. **The digital revolution certainly offers numerous opportunities, creating new jobs that did not exist before, but at the same time brings with it the destruction of a certain type and number of jobs that put at risk a non negligible slice of jobs**.

["The skills needs 4.0 of the Tuscan production system", IRPET Research]

- we are carrying out an **extensive research on Training 4.0** and on the potential repercussions that the technological innovations of the production process, Industry 4.0, are producing and will produce in the future on the skills and professionalism required by those who request work.
- The analysis also evaluates the **degree of exposure of human capital to the changes induced by the fourth industrial revolution and quantifies, as far as possible, the potential for replacing the occupied workforce**.

Two steps for Skills Anticipation

1. Identification of **strategic sectors** in the regional economy

2. Analysis of **strategic skills** needs

Identification of strategic sectors in the regional economy

Dimensions		Measurement
1. Job creation capacity		Difference between hirings and firings
2.Job quality	1b.Stability and work content	Share of open-ended contracts Share of days worked on potential days worked
	2b.Quality of human resources	Salary or average years of education
3.Competitiveness	1c.Share of dynamic firms	Firms with sales and employment growth higher that the regional average
	2c.Export capacity	Share of export on total sales

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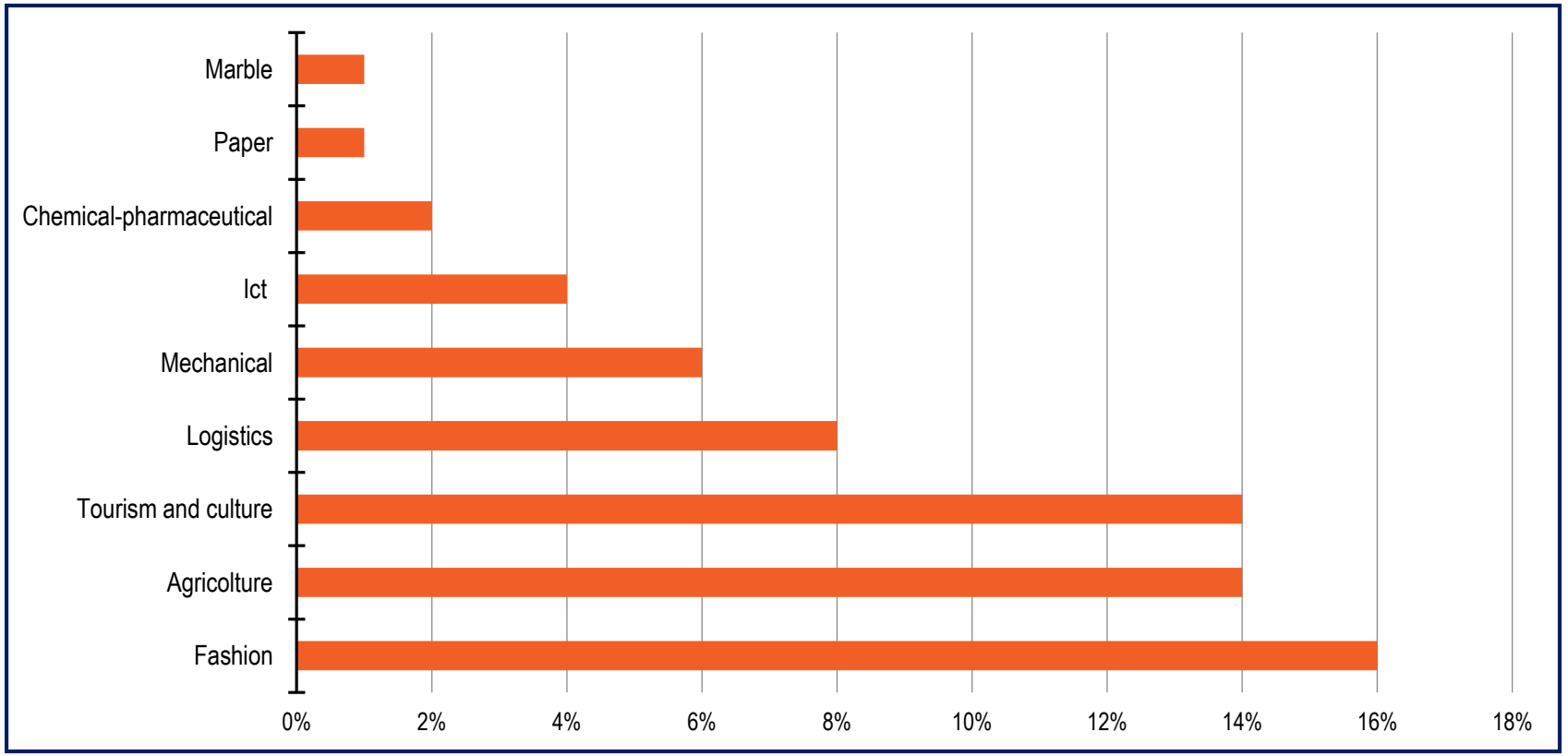
Identification of strategic sectors in the regional economy

Strategic sectors by share of workers in regional private economy



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Analysis of strategic needs

	CURRENT NEEDS	EMERGING NEEDS
DATA SOURCE	• Administrative database on hirings by occupation	• Firms survey • Focus group
RELEVANT INFORMATION	• Job quantity • Job quality	• Strategic occupations • Required skills within occupations
OUTPUT	• Grids of occupations	• Check and enrichment of grids

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Analysis of strategic needs

Fashion industry

VOLUME OF HIRINGS	JOB STABILITY: High	JOB STABILITY: Low
Big	**Valigiai, borsettieri e professioni assimilate** **Artigiani delle lavorazioni artistiche a mano di tessili, cuoio e simili** Operai addetti a macchinari industriali per confezioni di abbigliamento in stoffa e assimilati **Sarti e tagliatori artigianali, modellisti e cappellai** **Altri operai addetti a macchinari dell'industria tessile e delle confezioni ed assimilati** Tessitori e maglieristi a mano e su telai manuali Artigiani ed operai specializzati delle calzature ed assimilati **Addetti a telai meccanici e a macchinari per la tessitura e la maglieria** Pellicciai, modellatori di pellicceria e professioni assimilate **Orafi, gioiellieri e professioni assimilate** Biancheristi, ricamatori a mano e professioni assimilate	Addetti a macchinari per la filatura e la bobinatura **Conciatori di pelli e di pellicce** Personale non qualificato delle attività industriali e professioni assimilate Facchini, addetti allo spostamento merci ed assimilati Pittori, scultori, disegnatori e restauratori di beni culturali
Small	Addetti a macchine confezionatrici e al confezionamento di prodotti industriali Addetti a macchinari per la produzione in serie di calzature Tappezzieri e materassai Addetti a macchinari per la stampa dei tessuti Autisti di taxi, conduttori di automobili, furgoni e altri veicoli	**Tecnici dell'organizzazione e della gestione dei fattori produttivi** **Addetti a macchinari industriali per la preparazione e produzione in serie di articoli in pelli e pellicce** Addetti ai macchinari per il trattamento di pulitura a secco, candeggio e tintura di filati e tessuti industriali **Tecnici della produzione manifatturiera** Preparatori di fibre Finitori di metalli e conduttori di impianti per finire, rivestire, placcare metalli e oggetti in metallo Assemblatori in serie di articoli industriali compositi **Tecnici esperti in applicazioni** Artigiani e addetti alle tintolavanderie **Tecnici chimici**

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Analysis of strategic needs

Fashion industry

VOLUME OF HIRINGS	JOB STABILITY: High	JOB STABILITY: Low
Big	**Valigiai, borsettieri e professioni assimilate (anche su articoli di similpelle e stoffa)** **Artigiani delle lavorazioni artistiche a mano di tessili, cuoio e simili** Operai addetti a macchinari industriali per confezioni di abbigliamento in stoffa e assimilati **Sarti e tagliatori artigianali, modellisti e cappellai** **Altri operai addetti a macchinari dell'industria tessile e delle confezioni ed assimilati** Tessitori e maglieristi a mano e su telai manuali Artigiani ed operai specializzati delle calzature ed assimilati **Addetti a telai meccanici e a macchinari per la tessitura e la maglieria** Pellicciai, modellatori di pellicceria e professioni assimilate **Orafi, gioiellieri e professioni assimilate** Biancheristi, ricamatori a mano e professioni assimilate	Addetti a macchinari per la filatura e la bobinatura **Conciatori di pelli e di pellicce** Personale non qualificato delle attività industriali e professioni assimilate Facchini, addetti allo spostamento merci ed assimilati Pittori, scultori, disegnatori e restauratori di beni culturali
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Analysis of strategic needs

Fashion industry

VOLUME OF HIRINGS	JOB STABILITY: High	JOB STABILITY: Low
Big	**Sewing machine operators** **Fibre preparing, spinning and winding machine operators** Weaving and knitting machine operators Shoemaking- and related machine operators	Elementary workers
Small	Packaging machines operators	**Ict operators** **Chemical technicians**

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Skill anticipation in practice

Public notices

for the financing of training courses

giving priority to training projects

addressing strategic skills needs

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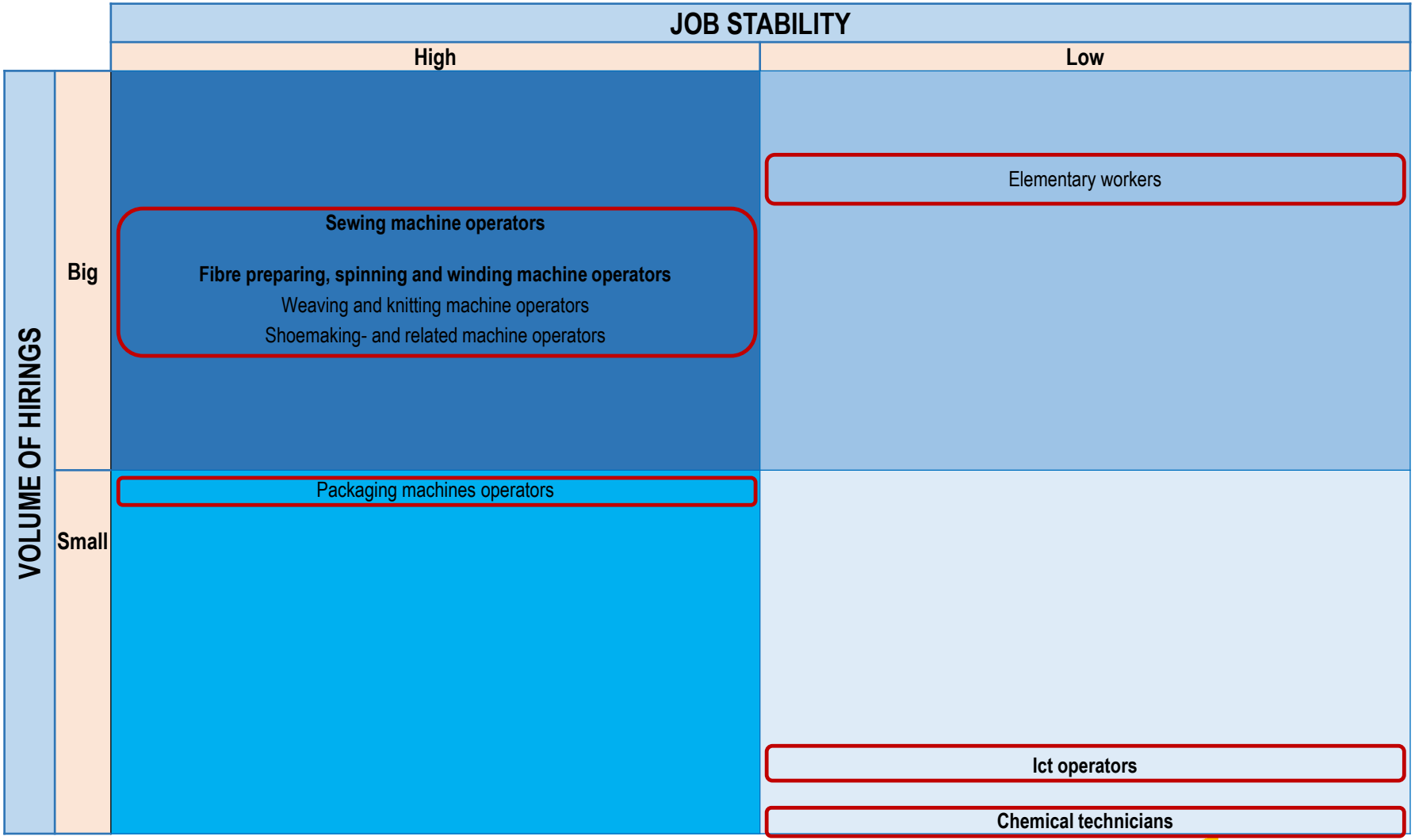
Analysis of strategic needs

Fashion industry



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Skills anticipation 4.0

VOLUME OF HIRINGS	JOB STABILITY: High	JOB STABILITY: Low
Big	Systems Analysts Software Developers Mechanical engineer Electrical Engineers Electronics engineer Applications Programmers Mechanical technician Warehouse managers Manufacturing supervisors	Web and Multimedia Developers Automated assembly line operators
Small	ICT security managers Chemical engineers Materials engineers Industrial engineers Web technician Computer network and systems technicians Textile designers	Biomedical engineers Data analyst Environmental technicians

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Next Steps Forward

1. Focus on **bottleneck vacancies** and **skills gaps** within strategic industries

2. Ex-post **impact evaluation** of the effectiveness of training courses

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Thanks for your attention!

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HORDALAND FYLKESKOMMUNE

Skills Adaptation/Anticipation and Labour Market Needs

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Specific Sectors: Processes and Tools

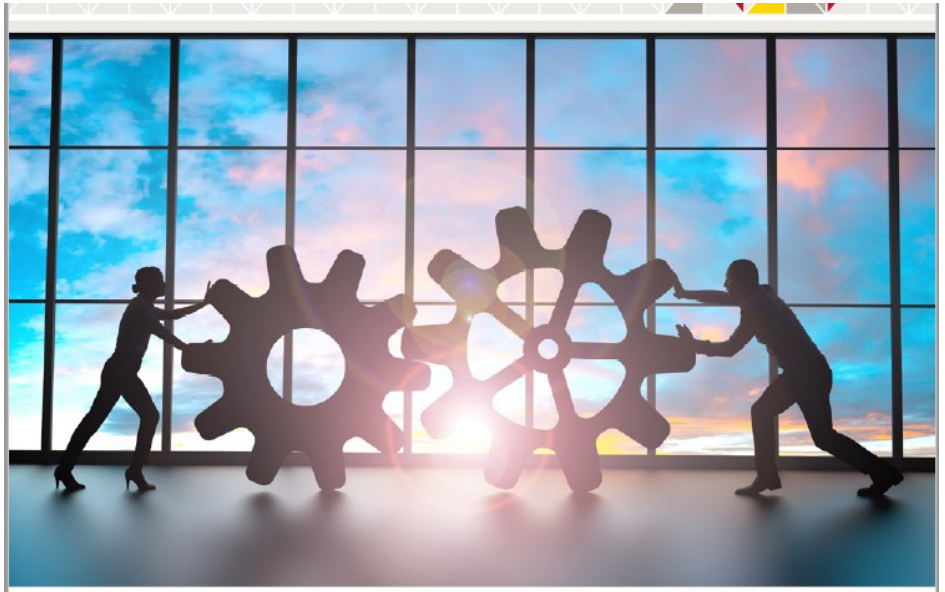
- Regional plan for skills and the labour market 2017
- National pilot for partnership building
- Smart specialisation
- Internationalisation
- Action plan

Main Needs, Challenges and Concerns

How can we develop studies and courses in accordance with the needs of the labour market of the future?

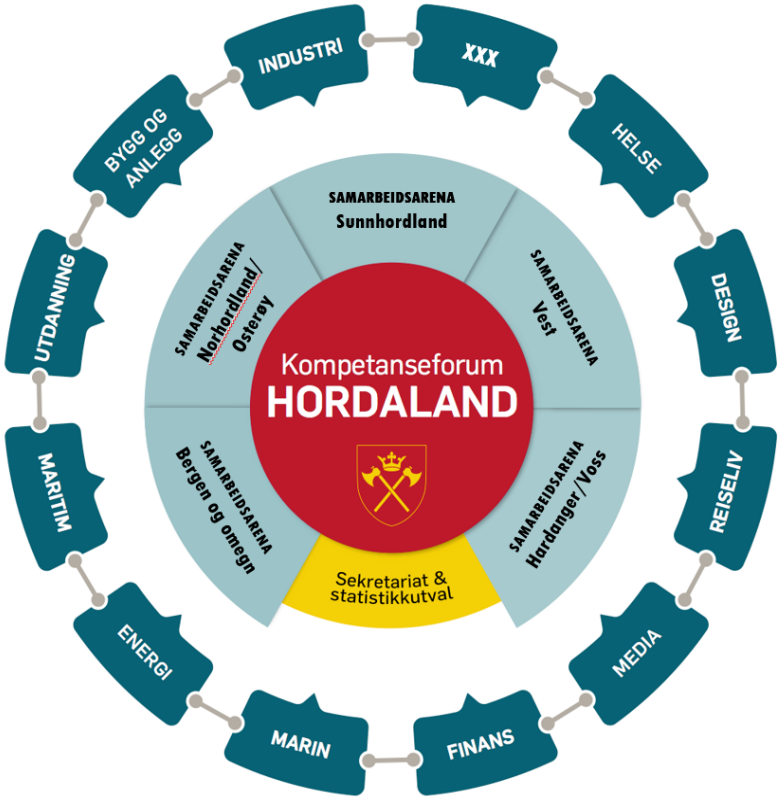
How many students should be enrolled in each programme?

How can we ensure that the inhabitants make good career choices through all phases of life?



Next Steps Forward

Skills forum Hordaland



Projects and tools

Interreg North Sea Region VB project:

RIGHT skills for the RIGHT future

EUSKO JAURLARITZA GOBIERNO VASCO

HEZKUNTZA SAILA DEPARTAMENTO DE EDUCACIÓN

Skills Adaptation/Anticipation and Labour Market Needs

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- ✓ **7,234** SURFACE AREA IN KM²
- ✓ **2,173,210** POPULATION
- ✓ **2.03%** GDP to R&D
- ✓ Main industrial sectors: Advanced Machinery, Automotive, Aeronautical, Energy, Maritime and Railway Industry

Political and institutional commitment - 76% of the Basque Government's budget: education and social affairs.

55.1% of people aged between 30 and 34 have a higher education degree (Tertiary Education) (ISCED 5-8).

24,8% of people aged between 30 and 34 have an Upper Secondary and post-secondary education (non tertiary) certificate (ISCED 3-4).

65% of jobs in Basque companies require a vocational training certificate (70% in the case of the industrial sector).

An advanced region
The Basque Country occupies the 81st place in GDP per inhabitant, out of 330 OECD regions.

European Region in Connectivity
The Basque Country has been named Best Medium-Sized European Region in Connectivity

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Processes and Tools

- The Basque VET system: strategic context

  (based on the Basque Law on VET & V VET Plan)

A combined 3-pillar model:

✓ **Training**

✓ **Applied innovation**

✓ **Active entrepreneurship**

Transversal: Internationalization

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Combined Framework for Training, Innovation and Entrepreneurship

VET System

Applied Innovation System

Active Entrepreneurial System

European Qualification Framework

National Qualification System

Smart Specialization

Strategic Environments

Areas of specialization

Projects

Advanced Management

Ikasenpresa Project

Urratsbat Project

Projects

Adv. Meth. Entrep.

Ekingune

Company

Specialization Programmes

Basque Qualif. Framework

VET University

VET System

Guidance System

Continuous Improvement System

Competitive Intelligence

Innovation Routine

Constructive Thinking

Cooperation with companies

INTERNATIONALIZATION

Active VET

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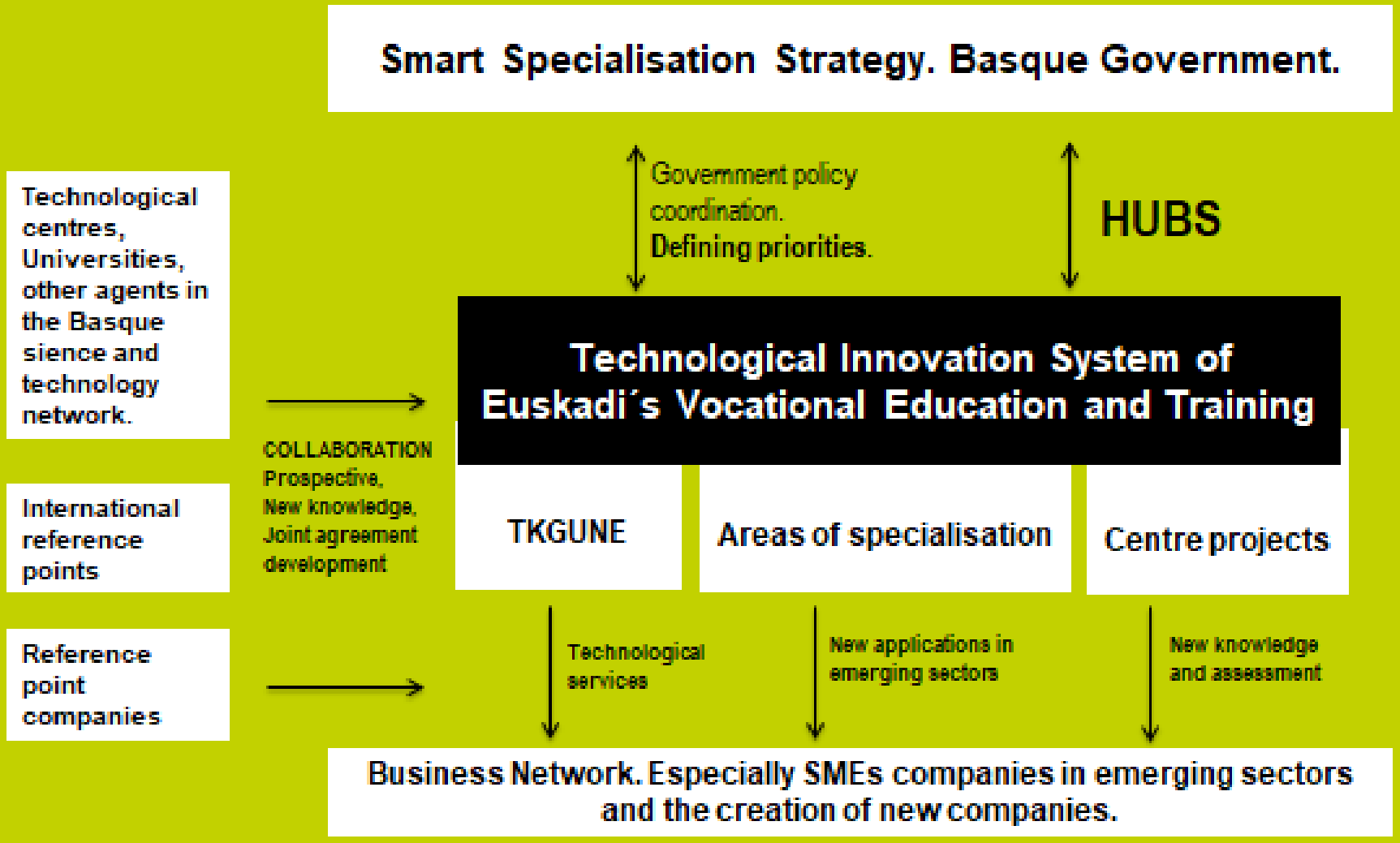
Research & Innovation
Smart Specialisation Strategy
(RIS3)

Strategic Priorities for Smart
Specialisation in Euskadi
(RIS3 EUSKADI)

Basque Network of Science Technology and Innovation

V Basque Plan of VET

Technological Innovation System of Euskadi's Vocational Education and Training



STRATEGIC ENVIRONMENTS. Cooperation VT- SMEs.

5 strategic environments in progress:

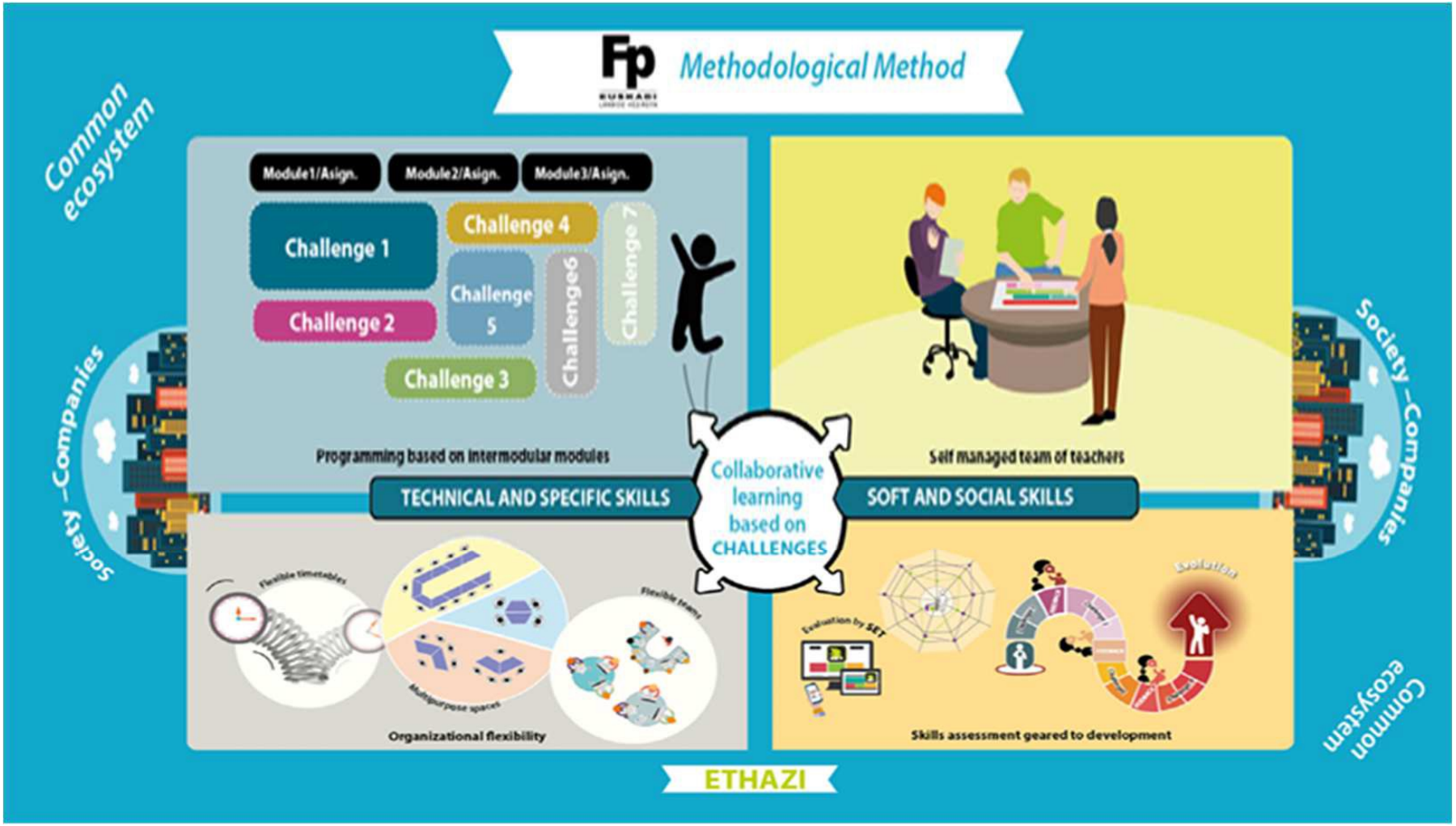
- Manufacturing
- Automotive
- Renewable energy
- Automation
- Creative Industry

TK·gune Innovation and Technology Transfer Network

PROFESSIONAL TECHNOLOGICAL SERVICES FOR SMEs

www.tkgune.eus

MANUFACTURING AUTOMOTIVE AUTOMATION ENERGY CREATIVE INDUSTRIES


Fp
Methodological Method
Common ecosystem
Module1/Asign.
Module2/Asign.
Module3/Asign.
Challenge 1
Challenge 2
Challenge 3
Challenge 4
Challenge 5
Challenge6
Challenge 7
Programming based on intermodular modules
Self managed team of teachers
Society –Companies
TECHNICAL AND SPECIFIC SKILLS
Collaborative learning based on CHALLENGES
SOFT AND SOCIAL SKILLS
Society –Companies
Common ecosystem
Flexible timetables
Multipurpose spaces
Flexible teams
Organizational flexibility
Evaluation by SET
Evaluation
Skills assessment geared to development
ETHAZI

Basque Observatory for Employment Prospective & job trends up to 2030

- http://futurelan.eus/es/

> Employment opportunities:
  - sectors
  - jobs

➢ Jobs 2030:
  - Offer
  - Trends & Skills
  - Adjustment scenario

➢ Observatory

Main Needs, Challenges and Concerns

- Not leaving anyone behind. Upskilling opportunities for all
- Overqualification
- Mismatches

Qualification: Future Scenario

Drivers

- Globalisation
- Changed Value Chain
- Demographic Change
- Growing Complexity

And therefore…

1. **More** higher qualifications
2. **New** academic job profiles
3. **Cross-competences**

…gain importance

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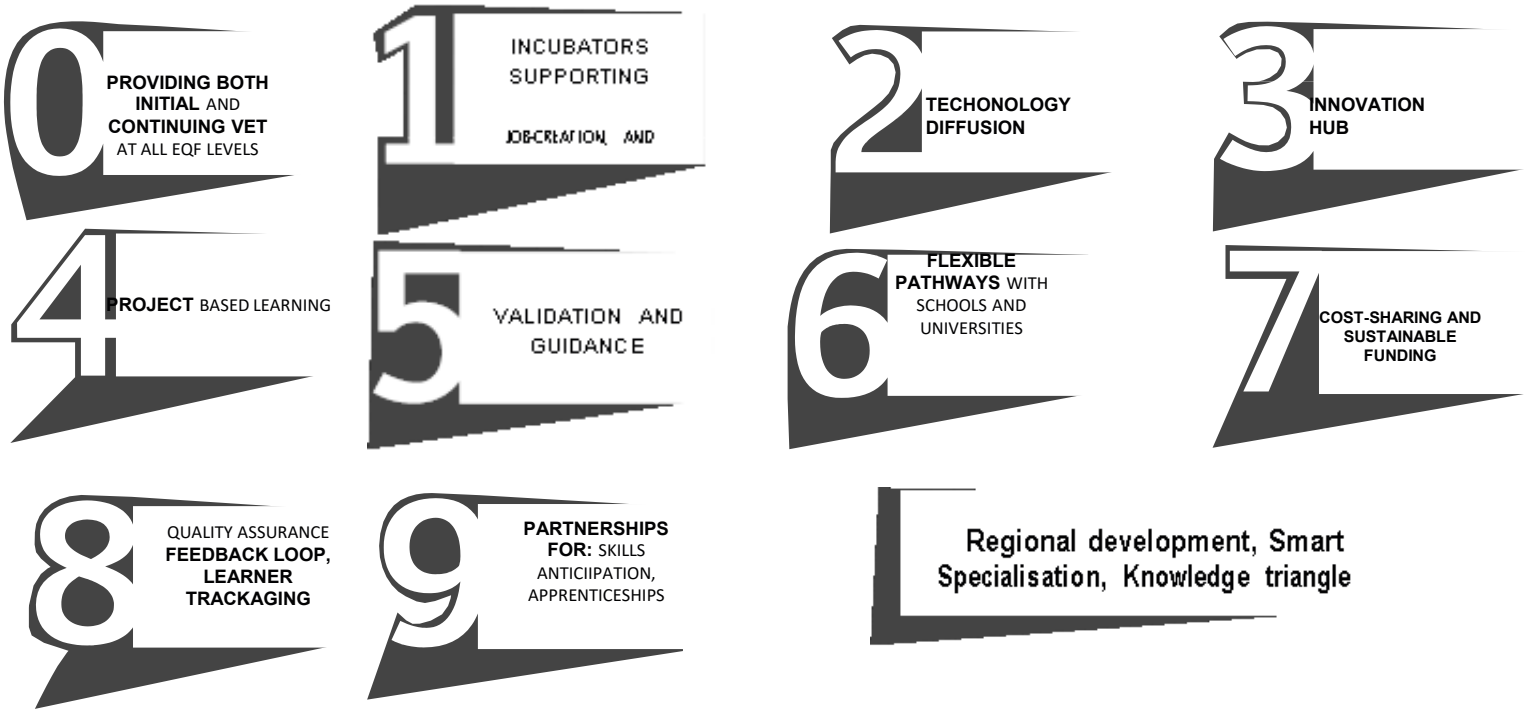
What is Vocational Excellence?



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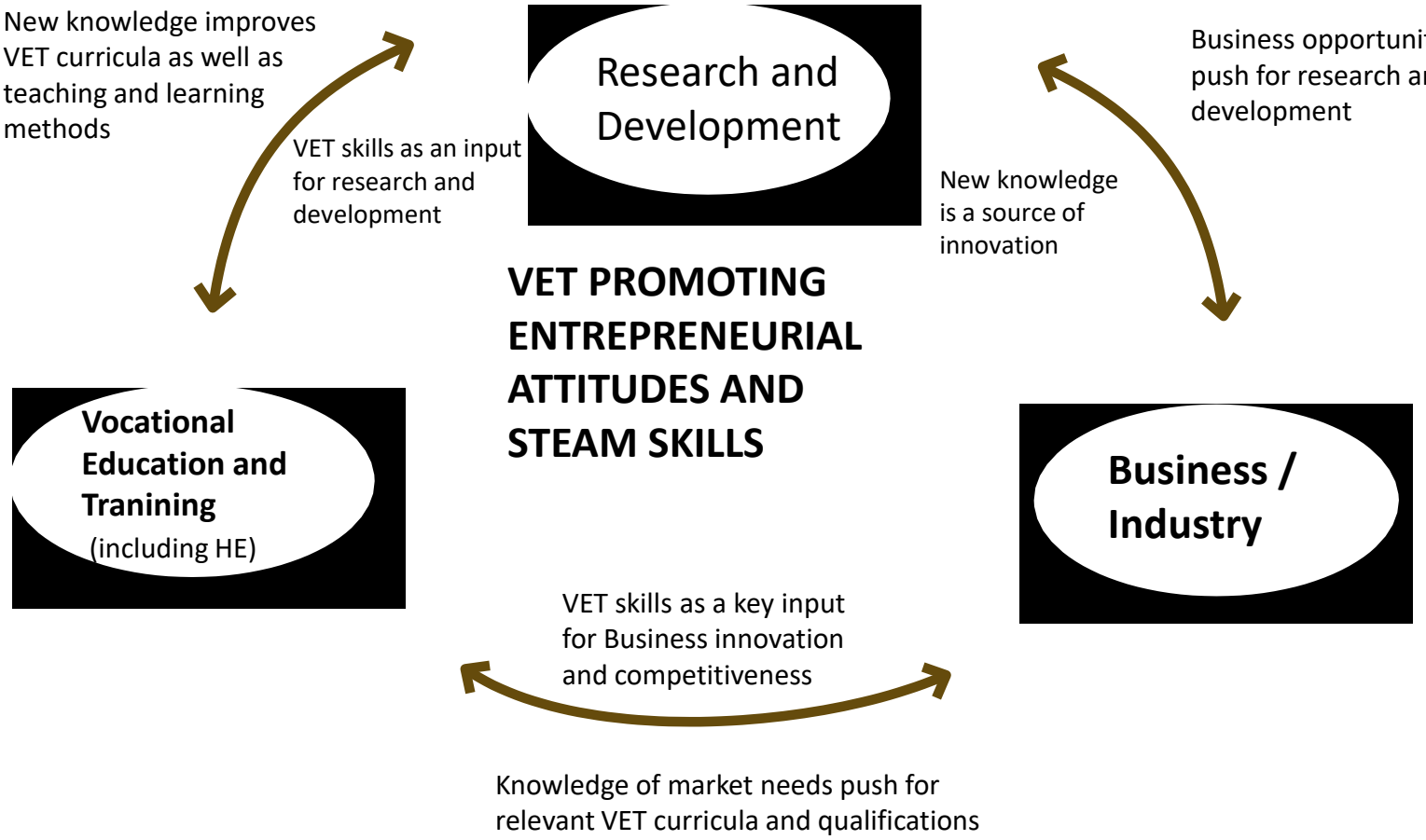

“Knowledge triangle”

TKNIKA – Basque Centre of Research and Applied Innovation in VET

https://www.tknika.eus/en/

REGION VÄSTRA GÖTALAND

Skills Adaptation/Anticipation and Labour Market Needs

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Region Västra Götaland

- 1.7 million inhabitants
- Export dependency
- Diversified businesses (industry, services, transports/trade)
- Excess demand for labour

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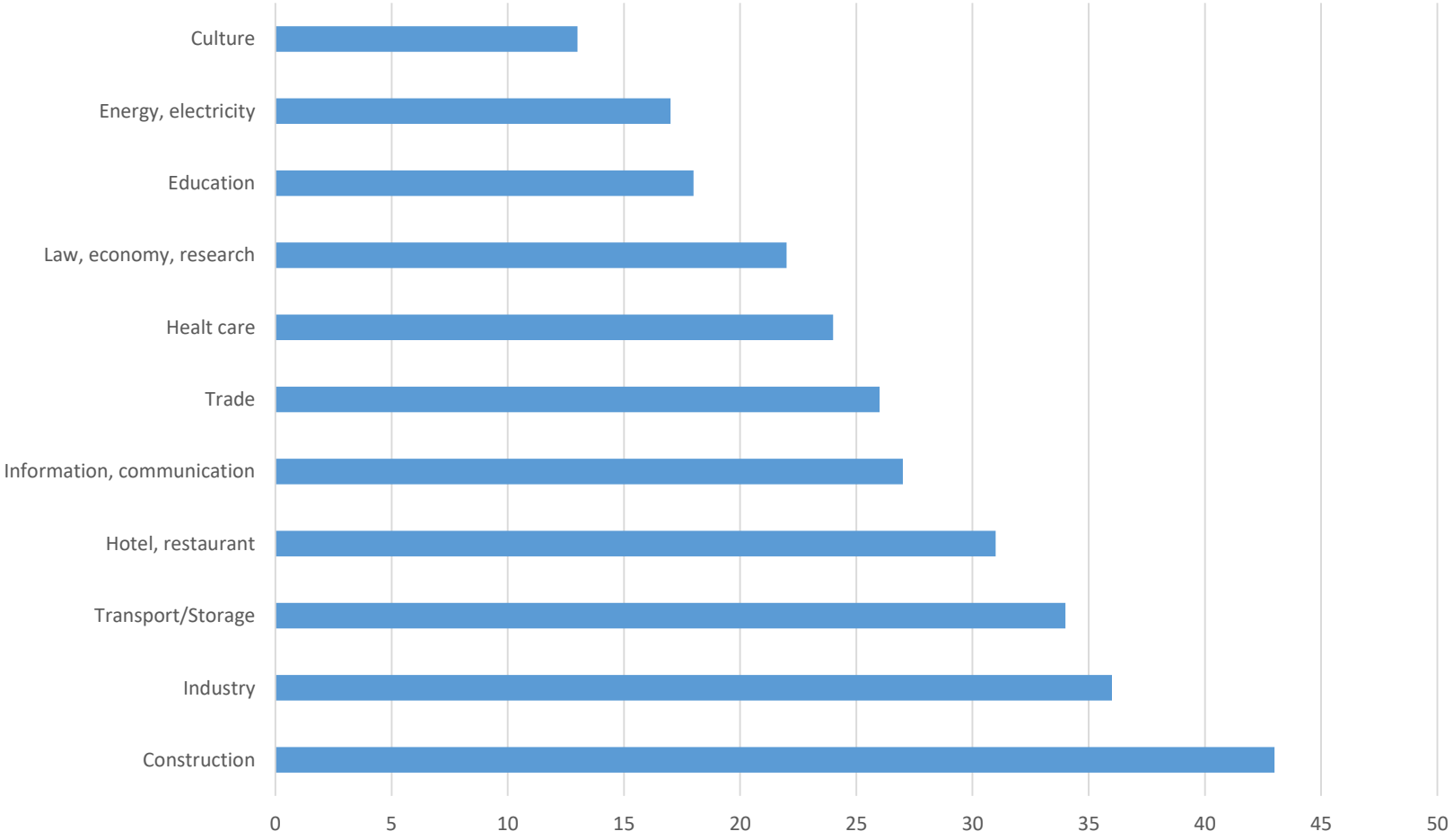
Excess demand for labour – private sector (share of businesses that see labour shortage as an obstacle for growth, percentage)



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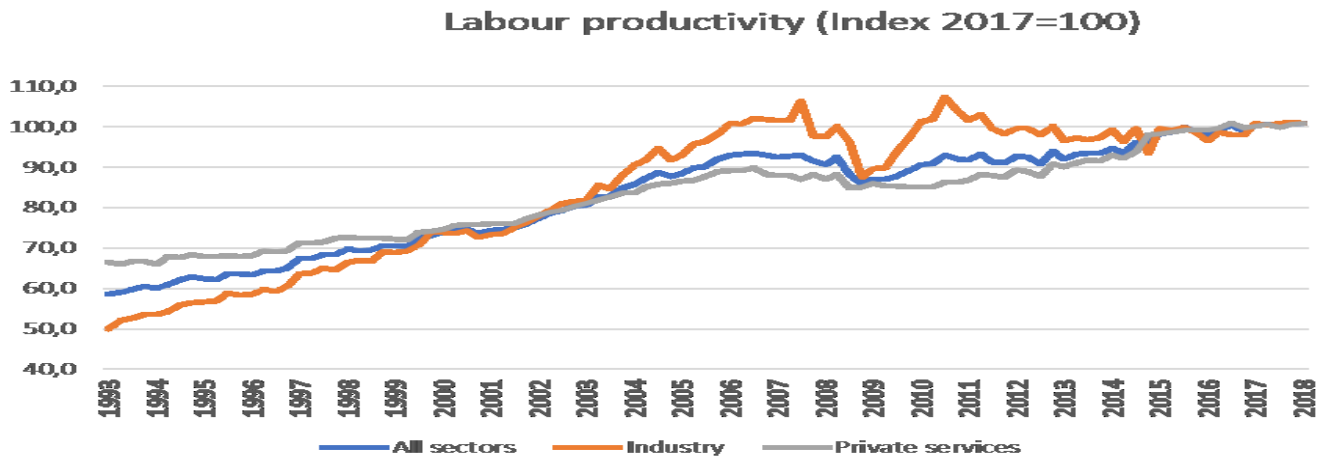
Main Needs, Challenges and Concerns

- Increase the labour supply
- Balance between human capital invest. and labour demand
- Increase labour productivity
- Increase the labour market participation rates
  - Full employment among native born
  - Foreign born a resource
  - Human capital investments



Next Steps Forward

- Further analysis regarding labour supply/demand
- Support local actors;
  - Investments in innovations – increased labour productivity
  - Investments in human capital
  - Support of skill integration (Industry 4.0)

Generalitat de Catalunya
Departament d'Ensenyament

Skills Adaptation/Anticipation and Labour Market Needs

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Main Needs, Challenges and Concerns

- More students in VET (50%)
- More women in VET (40%)
- More women in STEAM (10%)
- Better investment (4 % GPD)
- Improvement of the VET perception
- **Improvement the collaboration between VET and companies**

Specific Sectors: Processes and Tools

Sectors:

Production, mechatronics, maintenance industries, computing, electricity, building and civil works, chemistry, …

The new scenarios in the new economy:

Data processing, programming, robotics, clean and sustainable energy, high digitalization, transport sharing, …

The key, and soft, competencies:

Teamwork, empathy, resilience, leadership, decision making, self motivation, social commitment, responsibility, communication, flexibility, critical spirit, creativity, innovation, relationship, self management, proactivity, entrepreneurship, …

Skills Adaptation/Anticipation and Labour Market Needs

Main actions:

- **Profiles adapted to VET certificates and studies**
- **VET flexibilizing measures:**
  - *constant adaptation to the needs of the qualification, contextualization of the training and the engagement of the all agents involved*
- Apprenticeship and training in companies to improve competencies and students' employability
- Improvement of the balance between the offer and the demand of professionals
- …

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VET Qualifications Adapted to Job Profiles

Inici > Currículum i orientació > Ensenyaments professionals > Formació professional > Títols LOE > Informàtica i comunicacions

Informàtica i comunicacions

Informàtica i comunicacions

	R.Decret Boe	Mòduls Professionals	Orientacions	Decret Currículum
CFFPB Informàtica i comunicacions	PDF	DOC	DOC	
CFGM Sistemes microinformàtics i xarxes (CFPM IC10)	PDF		DOC	PDF
CFGS Administració de sistemes informàtics en la xarxa (CFPS ICA0)	PDF		DOC	PDF
CFGS Administració de sistemes informàtics en la xarxa, perfil professional ciberseguretat (CFPS ICA1)		DOC	DOC	
CFGS Desenvolupament d'aplicacions multiplataforma (CFPS ICB0)	PDF		DOC	PDF
CFGS Desenvolupament d'aplicacions multiplataforma, perfil professional informàtica aplicada a la logística (CFPS ICB1)		DOC	DOC	
CFGS Desenvolupament d'aplicacions multiplataforma, perfil professional videojocs i oci digital (CFPS ICB2)		DOC	DOC	
CFGS Desenvolupament d'aplicacions web (CFPS ICC0)	PDF		DOC	PDF
CFGS Desenvolupament d'aplicacions web, perfil professional bioinformàtica (CFPS ICC1)		DOC	DOC	

Next Steps Forward

- VET investment and visibility
- Regulation of VET qualifications for the Industry 4.0: women, stem, quality, equity, equally
- Resources for teachers: training in companies, technical training and training in didactics support centers, professional networks, …
- VET and apprenticeship in companies
- VET, companies and digitalization
- **VET flexibility and agility**

Thank you for your attention

joseantonio.andres@gencat.cat

Generalitat de Catalunya
Departament d'Ensenyament

Skills Adaptation/Anticipation and Labour Market Needs

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Annual '18 Conference

Skills Adaptation/Anticipation and Labour Market Needs

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