



Erasmus+



Technical University  
of Sofia



**ARRANGE-ICT**  
pArtneRship foR AddressiNG mEgatrends in ICT

pArtneRship foR AddressiNG mEgatrends in ICT

ARRANGE-ICT

**Project No 2018-1-BG-01-KA203-048023**

September 2018 – August 2020

**C2: SP-HE-SHORT**

**Short-term joint staff training events**

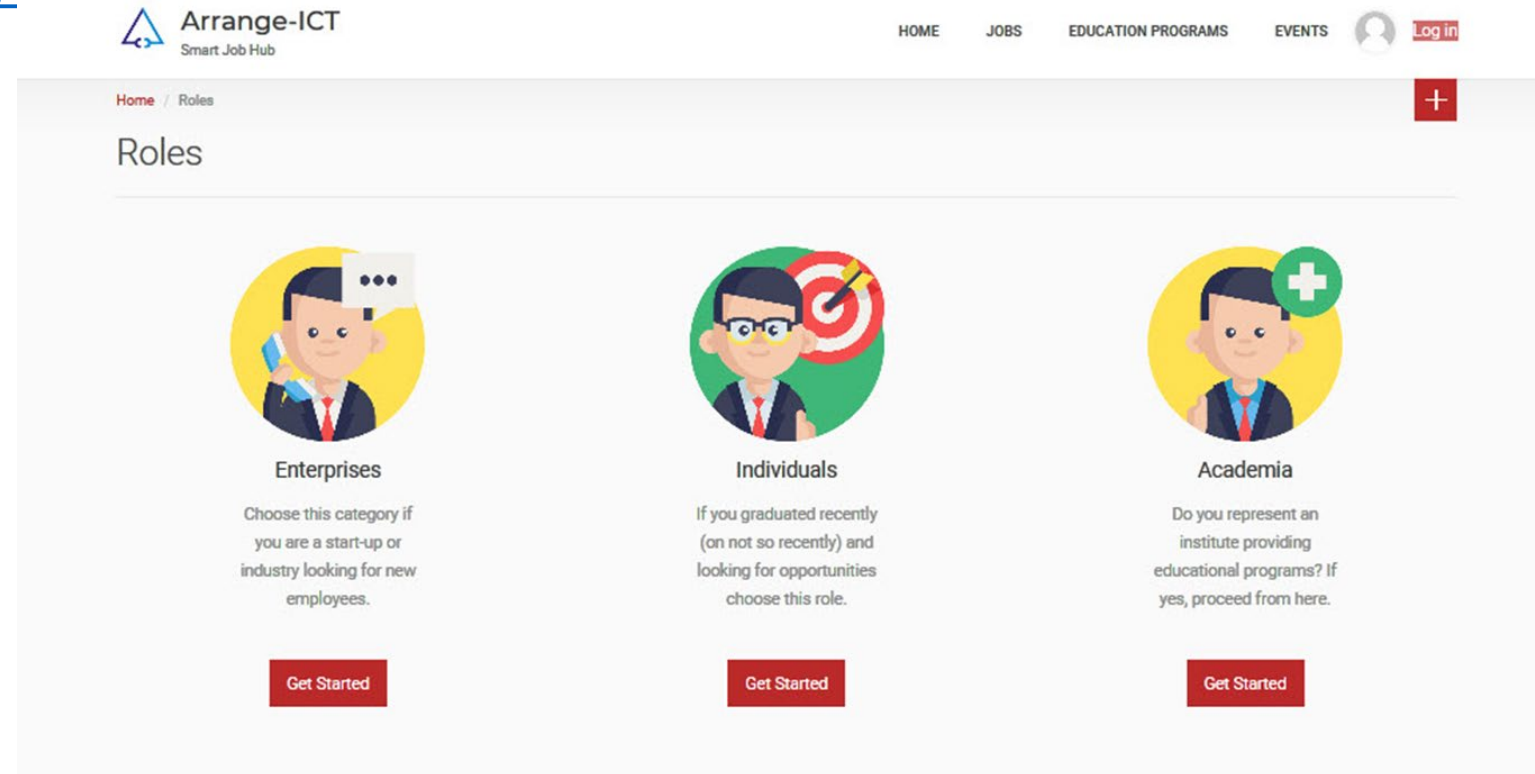
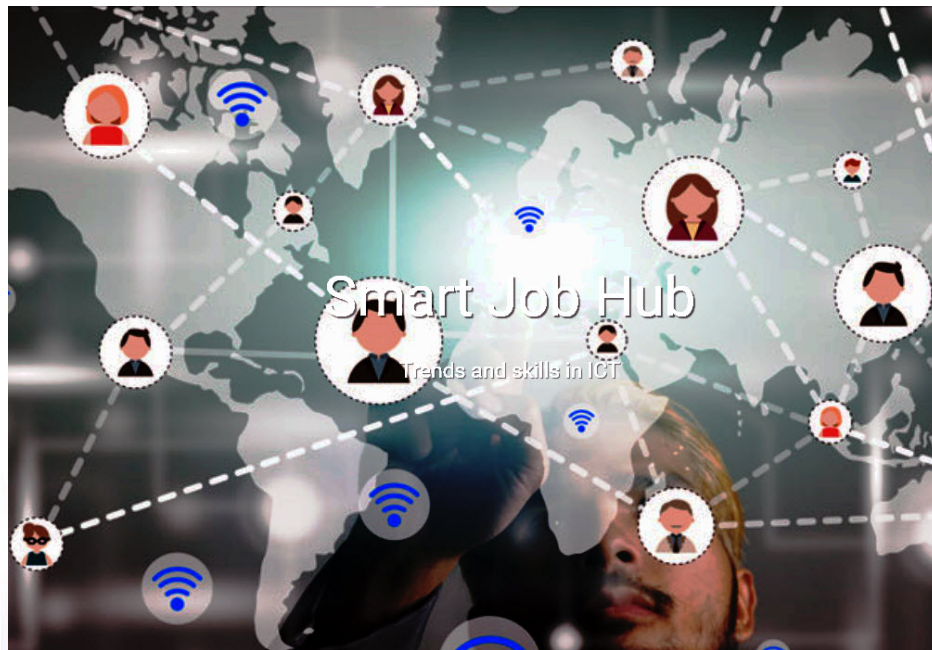
**Output 4: Guide for Instructors**

29 January 2020



## C2: SP-HE-SHORT

Smart Job Hub ([smartjobhub.arrange-ict.eu](https://smartjobhub.arrange-ict.eu)). is active now

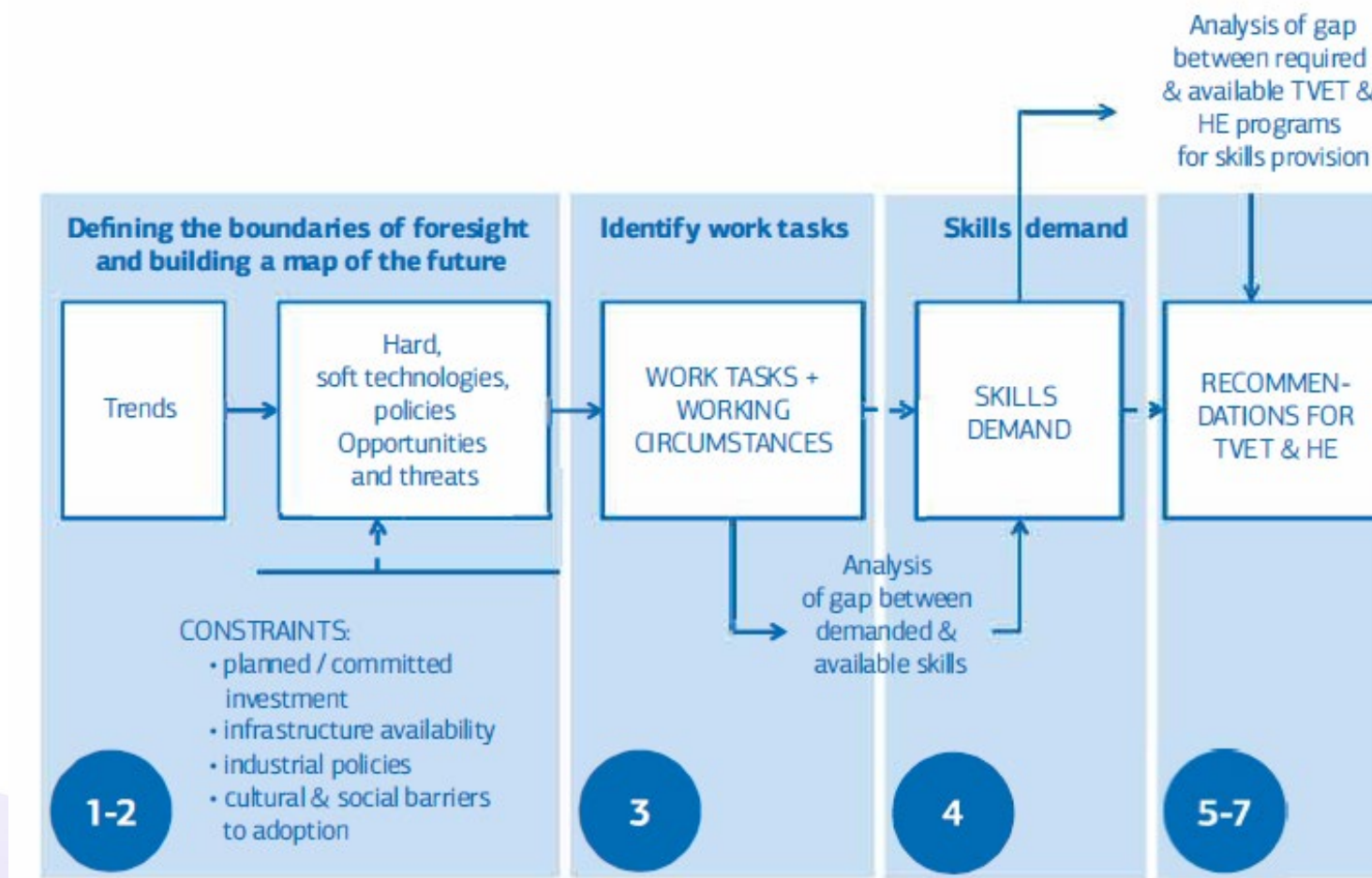


Job offer? Job demand? Lifelong learning?  
Start now with ARRANGE-ICT



Chose your role

# Intellectual Output 3 (O<sub>3</sub>) Foresight Study for ICT megatrends





# Intellectual Output 3 (O<sub>3</sub>)    **Foresight Study for ICT megatrends**

## ICT Megatrends 2020





- The training and development of people in the organization is a planned and systematically implemented process of professional development, knowledge, skills, attitudes and behavior of employees and their compliance with the requirements of business processes, strategic goals and priorities of the company.
- According to Deloitte studies, organizations that have a competency model and apply competency-based training increase the return on investment in employee development by more than 50%.

## C2: SP-HE-SHORT



Erasmus+



Technical University  
of Sofia



ARRANGE-ICT  
pArtnErshIp foR AddressING mEgatrends in ICT

A competency based approach helps to create an objective and detailed picture of the real state of human capital of the organization and the critical areas to be refined in view of its strategic goals. By implementing the competency model, people gain a clear vision of the knowledge, skills, attitudes, and behaviors that the organization values and is expected to succeed in their workplace.

Competency-based management builds an internal environment in which people are encouraged to be proactive and plan their self-improvement, learning from experience and upgrading traditional vocational qualifications frameworks with new interdisciplinary knowledge and skills and competencies that meet business goals and changing conditions require them.





### EXAMPLES OF AN INTELLECTUAL OUTPUT

- ✓ Definition of competences/language lexicon,
- ✓ distance learning module,
- ✓ creation/adaptation of a platform for sharing best practices or learning new skills within a network,
- ✓ assessment methodology and materials,
- ✓ joint curricula,
- ✓ digital modules/resources for learning/teaching/training,
- ✓ library of reusable 'Open Educational Resources' (OER),
- ✓ qualitative and quantitative analysis of network interactions,
- ✓ methodological framework for improving career management skills,
- ✓ methodological approach,
- ✓ specific software,
- ✓ policy recommendations at different levels.



- ✓ **Learning outcomes**, or statements of what a learner is expected to know, be able to do and understand at the end of a learning sequence, play an increasingly important role in efforts to improve the quality and relevance of education and training in Europe.
- ✓ **Learning outcomes** statements help to clarify programme and qualifications intentions and make it easier for those involved – learners, parents, teachers or assessors – to work towards these expectations.





- ✓ The increased transparency offered by **learning outcomes** also provides an important reference point for policy-makers, making it easier to judge the match between society's needs and the programmes and qualifications offered within education and training.
- ✓ **Learning outcomes**, however, can be written in many different ways and it is not a given that they will add value as expected. While promoting the overall use of learning outcomes, this handbook seeks to identify not only the opportunities but also the challenges involved when writing and defining them. It provides a link to an extensive collection of international and national resources, allowing stakeholders to consult experiences gained throughout (and beyond) Europe.



### Manage a skills gap analysis for Enterprises:

#### Step 1: Plan

Perform a skills gap analysis on two levels:

- **Individual:** You can identify the skills a job requires and compare them to an employee's actual skill level.
- **Team/company:** You can determine if your employees have the skills to work on an upcoming project or if you need to hire externally. This analysis can help you target your employee training programs to develop the skills you need.

## C2: SP-HE-SHORT

Manage a skills gap analysis for Enterprises:



Erasmus+



Technical University  
of Sofia



**ARRANGE-ICT**  
pArtnErshIp foR AdDrESSING mEGatrends in ICT

Here's an overview of skills gap analyses, including scope, examples of when to conduct a skills gap analysis and ways to close skills gaps:

Scope	Who is in charge of the process	When to conduct a skills gap analysis	How to respond to skills gaps
Individual level	Team leader	<ul style="list-style-type: none"><li>• Changes in employee's duties</li><li>• Poor performance review</li><li>• Need for new skills for a promotion or new project</li></ul>	<ul style="list-style-type: none"><li>✓ Training</li><li>✓ Succession Planning</li><li>✓ Mentoring initiatives</li></ul>
Team/company level	Team leader HR External consultants	<ul style="list-style-type: none"><li>• Problems meeting business goals</li><li>• Strategy shifts that require new skills or developing old ones</li><li>• Using new technologies</li></ul>	<ul style="list-style-type: none"><li>✓ Hiring</li><li>✓ Training programs</li><li>✓ Mentoring initiatives</li></ul>



### Manage a skills gap analysis for Enterprises:

HR can initiate team and company-wide skills gap analyses by holding a meeting with managers to explain the process.

It can also be a good idea to hire an external consultant to conduct a skills gap analysis.

Hiring an outside evaluator can make the process more objective and will free up staff time to focus on other relevant work.





### Manage a skills gap analysis for Enterprises:

#### Step 2: Identify important skills

Some employers say they have difficulty filling jobs because of skill gaps. But others argue that skill gaps are a product of unrealistic expectations. Identify the skills you need by answering two questions:

What skills do we value as a company?

What skills do our employees need to do their jobs well now and in the future?

Consider your company's job descriptions, business objectives and company values. Think of the new skills your company might need in coming years. You could also survey team members on what skills they think are missing. Their insights could prove invaluable and involving your employees can help them feel that they're contributing to your company's growth.

## C2: SP-HE-SHORT

Manage a skills gap analysis for Enterprises:



Erasmus+



Technical University  
of Sofia



**ARRANGE-ICT**  
pArtnErshIp foR AddressING mEgatrends in ICT

Here's an example of how to list and prioritize skills employees, teams and companies need:

	Importance	Skill level required
Leadership	High	Excellent
SAP knowledge	Moderate	Good
Initiative	High	Excellent

## C2: SP-HE-SHORT

### Manage a skills gap analysis for Enterprises:

Numerical rating scales can be a more practical way to assess skills gaps when you want to aggregate individual scores. You could use a five-point or three-point system. Ensure you have explicitly defined scales. For example, a scale of 1 to 5 could range from poor to excellent, or inexperienced to expert.

				Skills										Data Warehousing	Database Programming	Information Services (IIS)	Internet Security	Java
Emp ID	Last	First	Notes	.NET	ActionScript	AD	AJAX											
1	Reeves	Alvin		4	2	5	4							5	3	5	5	5
2	Roberts	Lela		3	4	4	2							3	5	5	2	1
3	Irvine	Justin		3	3	4	1							1	4	5	2	2
4	Meyer	Lue		3	5	5	5							2	3	2	4	2
5	Adan	Ninfa		2	4	2	2							5	5	3	1	5
6	Black	Tereasa		3	1	3	4							4	3	2	5	1
7	Luong	Holly		2	3	4	5							4	3	5	1	4
8	Washington	Lisa		5	4	4	2							5	1	4	2	1
9	Apple	Leslie		4	4	3	4							4	1	2	1	1
10	Bell	Amy		2	1	2	4							5	3	3	1	5

Search

Sort Smallest to Largest

Sort Largest to Smallest

Sort by Color

Clear Filter From "Android"

Filter by Color

Number Filters

Search

- ☒ (Select All)
- ☒ 1
- ☒ 2
- ☒ 3
- ☒ 4
- ☒ 5
- ☒ (Blanks)

Enter and browse ICT skills for Arrange



### Output 4: Guide for Instructors

A complete guide which can be used by instructors and HEIs for the development of courses/training that address ICT megatrends

- ✓ utilise feedback from the completed Smart Job Hub functionality to create a guide which describes specific training practices
- ✓ provide valuable instructions for the design and delivery of courses inspired by the identified megatrends, in an effort to alleviate the skills gap.
- ✓ employed by any HEI (not just the ones participating in the consortium) that needs and intends to update its modules according to the latest major ICT industry trends



## C2: SP-HE-SHORT



Erasmus+



Technical University  
of Sofia



ARRANGE-ICT  
pArtneRship foR AddressING mEgatrends in ICT

### Manage a skills gap analysis for Enterprises:

#### Step 3: Measure current skills

To measure skill levels, you could use:

- ✓ Surveys and assessments.
- ✓ Interviews with employees.
- ✓ Feedback from performance reviews.

Skills management software, like Skills DB Pro and TrackStar that can make a skills gap analysis much less time-consuming.

Alternatively, you can measure skills by creating a skills spreadsheet specific to each individual position.



# Manage a skills gap analysis for Enterprises:

For example: Position: Telesales Representative

	Importance	Required level	Actual level
Negotiation skills	High	5	4
CRM software	High	3	3
Excel	Moderate	4	2

## C2: SP-HE-SHORT



Erasmus+



Technical University  
of Sofia



ARRANGE-ICT  
pArtneRship foR AddressING mEgatrends in ICT

### Manage a skills gap analysis for Enterprises:

#### Step 3: Measure current skills

To measure skill levels, you could use:

- ✓ Surveys and assessments.
- ✓ Interviews with employees.
- ✓ Feedback from performance reviews.

Skills management software, like Skills DB Pro and TrackStar that can make a skills gap analysis much less time-consuming.

Alternatively, you can measure skills by creating a skills spreadsheet specific to each individual position.

## C2: SP-HE-SHORT



Erasmus+



Technical University  
of Sofia



ARRANGE-ICT  
pArtneRship foR AddressING mEgatrends in ICT

### Manage a skills gap analysis for Enterprises:

#### Step 3: Measure current skills

To measure skill levels, you could use:

- ✓ Surveys and assessments.
- ✓ Interviews with employees.
- ✓ Feedback from performance reviews.

Skills management software, like Skills DB Pro and TrackStar that can make a skills gap analysis much less time-consuming.

Alternatively, you can measure skills by creating a skills spreadsheet specific to each individual position.





### Manage a skills gap analysis for Enterprises:

#### Step 4: Act on the data

There are two ways to fill skills gaps: training and hiring. Decide which approach (or combination) works best for each skill gap.

#### ✓ Train for skill gaps

More than half of companies train and develop their staff to fill open positions. Offer training for employees in skills you'd like to strengthen, for example using SAP or Excel. The right training can help you close gaps between current and desired skill levels.



### Manage a skills gap analysis for Enterprises:

#### Step 4: Act on the data

You can use professional training firms to arrange workshops, training sessions and seminars for your staff. Along with formal training, you can also offer:

- ✓ Subscriptions, online courses and educational material.
- ✓ Voluntary employee mentorship programs.
- ✓ Opportunities to attend events and conferences.
- ✓ Opportunities to obtain certifications like Project Management Professionals (PMP) or Professional Certified Marketer (PCM).



### Manage a skills gap analysis for Enterprises:

#### Step 4: Act on the data

##### ✓ Hire for skill gaps

If your skills gaps are too wide to minimize with training, consider hiring to bring new knowledge and skills into your company. You could:

- Modify your hiring process to screen for skills your company needs. For example, you can add skills assessments (like writing samples) and numerical reasoning tests.
- Use structured interviews to reduce biases and ensure your criteria for choosing a new hire are strictly job-related.



### Manage a skills gap analysis for Enterprises:

#### Step 4: Act on the data

##### ✓ Hire for skill gaps

- Source passive candidates. Often, candidates who have the skills you need aren't looking for a job. Use effective sourcing techniques (like recruiting on Twitter and sourcing using boolean logic) to find and contact promising candidates.
- Conducting a skills gap analysis can be time-consuming. But the results are worth it. Knowing which skills you need to grow as a business will help you hire – and retain – the right people.



### Intellectual Output 4 (O4) **Guide for Instructors**

**Best WordPress Learning Management System (LMS)** plugins allow you to create and run online courses with WordPress:





Erasmus+



Technical University  
of Sofia



**ARRANGE-ICT**  
pArtnErshIp foR AddressING mEgatrends in ICT

# Thank you for your attention!

Any  
questions ?