



Measuring the success of ESCO

*9th MSWG meeting
7 February 2019*

Continuous improvement of ESCO

Working for the ongoing improvement and integration of ESCO

- addressing skill gaps in the labour market
- bridging employment to education and training
- adjusting ESCO to developments and needs

Recruiting

Matching people to
jobs & trainings

Advertising
job vacancies

Areas of
implementation

Career planning

Documenting &
mapping skills &
qualifications

Analysing the labour
market

Feedback on
use of ESCO



Key Performance
Indicators

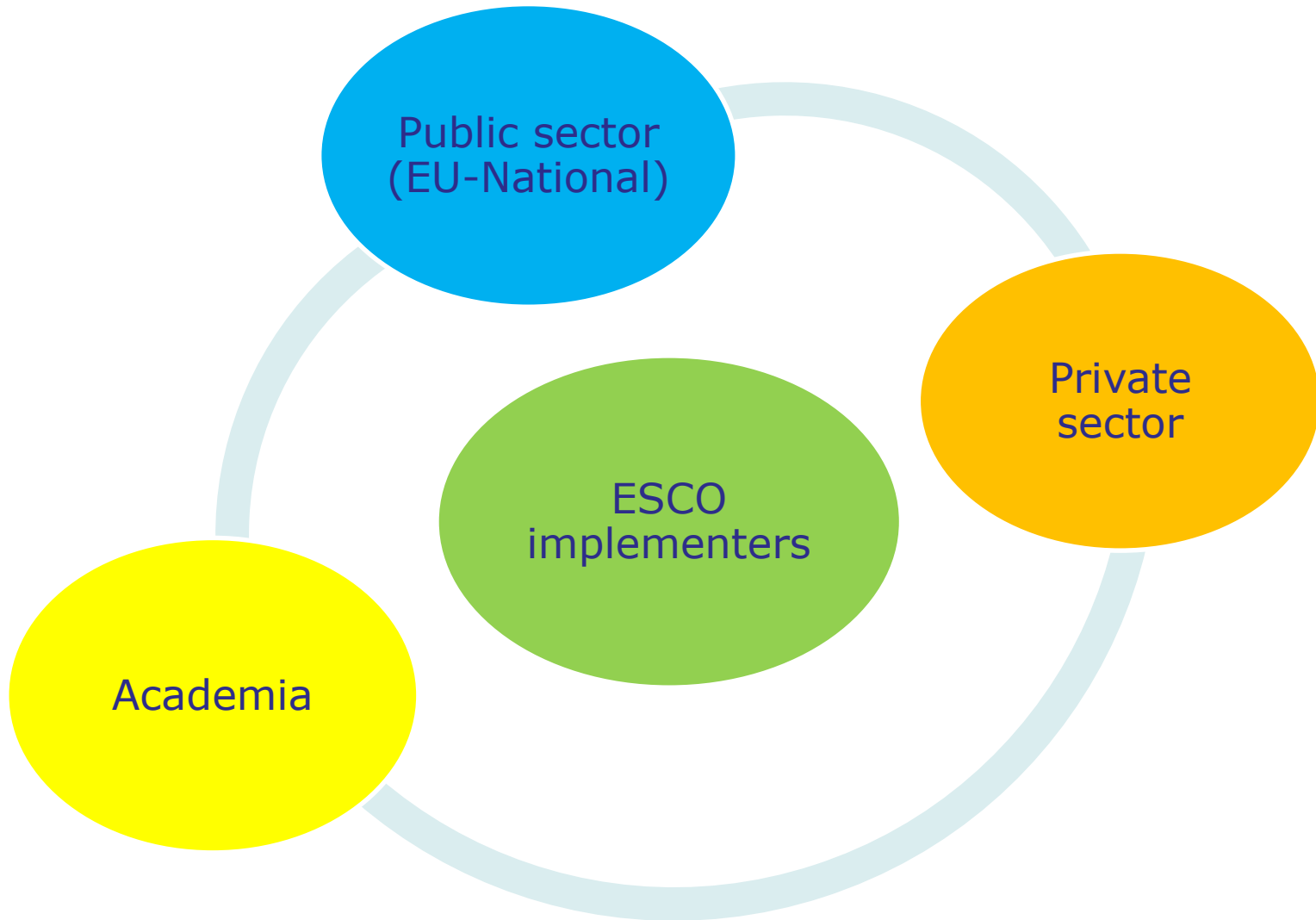
Study visits to ESCO
implementers

ESCO KPI framework

Making ESCO's impact more measurable

Distinction of three types of KPIs

- Business
- Quality
- Technical





Visualise ESCO's role

Higher labour market participation

More, better and faster matches

Better informed career decisions

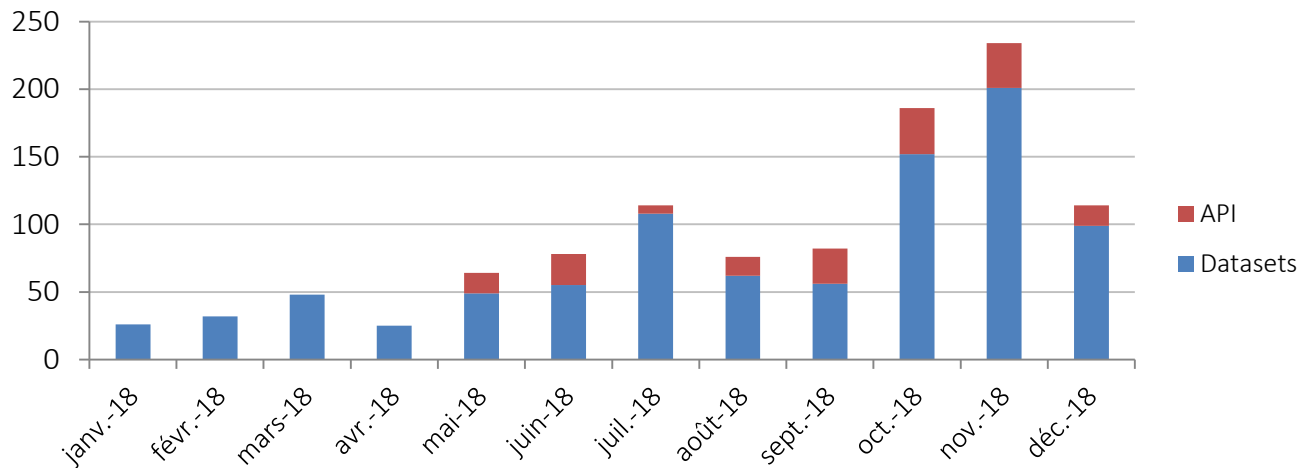
State of play of ESCO KPI framework

2/5 dashboards data availability Business and Quality KPIs

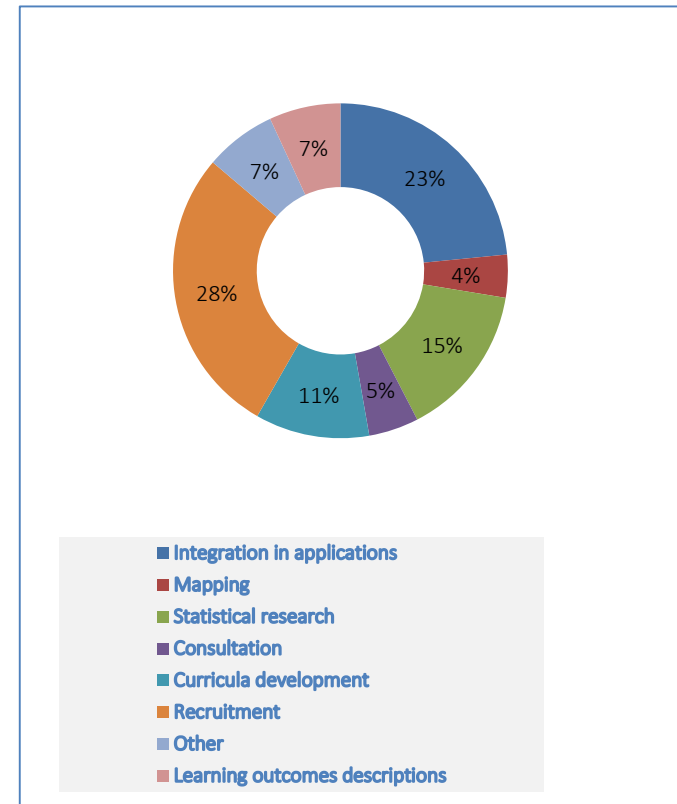
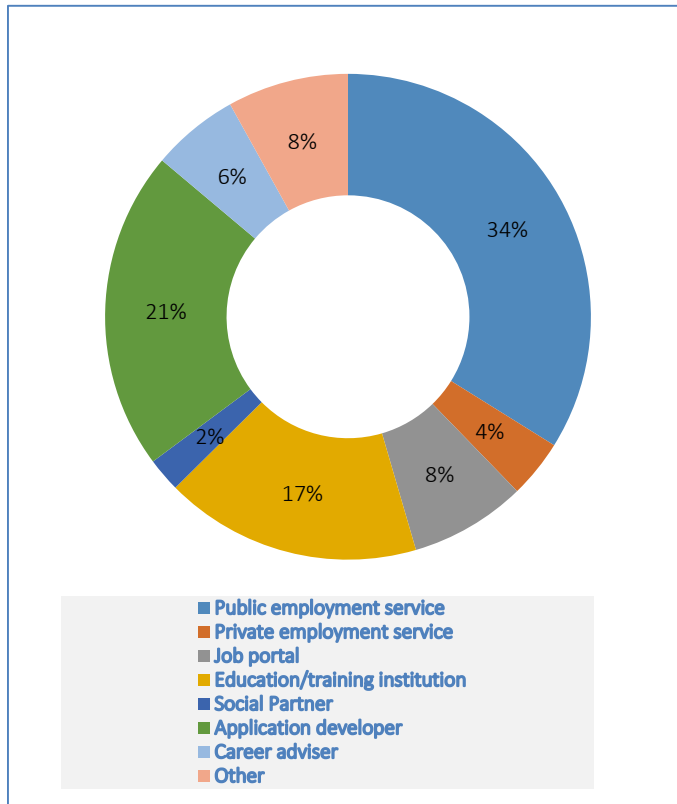
- 1. Acceptance of ESCO as de facto standard*
- 2. ESCO in EURES*
- 3. Evolution of the ESCO qualifications pillar*
- 4. Conceptual and terminological coverage*
- 5. Level of granularity of ESCO*

1. Acceptance of ESCO as de facto standard

Downloads of ESCO API and datasets



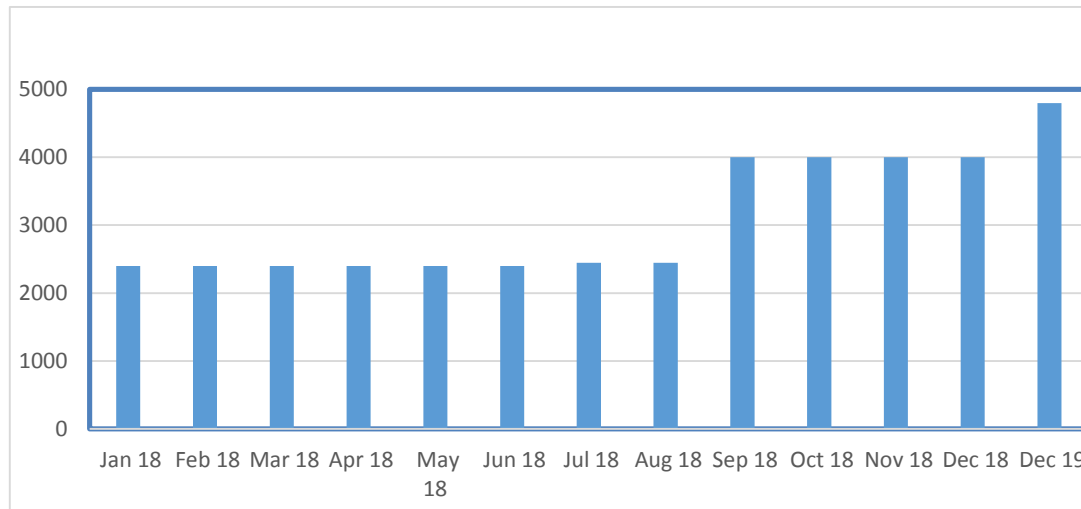
Success indicator: to have at least a 10% increase of downloads on a quarterly basis



Success indicator: to have a balance between the private and public users, with a good mix of using ESCO for integration in applications and curricula/ learning outcomes descriptions

3. Evolution of the ESCO qualifications pillar

Number of Qualifications in ESCO



Success indicator: to integrate qualifications from at least 20 Member States by 2020 and to have an increased progression of the included qualifications

Strategy to collect feedback from ESCO implementers

ESCO implementers vs ESCO end-users

ESCO implementers:

Stakeholders using ESCO in concrete applications to deliver services to their audience.

Feedback can be easily and directly collected.

ESCO end-users:

All users benefitting indirectly from services that use ESCO (job-seekers, employers, etc).

Feedback harder to obtain but could be done indirectly through the implementers

Strategy to collect feedback

What: *conduct in-depth study visits to several ESCO implementers: Textkernel, EURES, Docebo, Jobboost.io.*

When: *period from **November 2018 to March 2019***

Purpose:

- ✓ get a more in-depth understanding of how ESCO is used in their services
- ✓ assess how well ESCO is performing using defined metrics
- ✓ get any additional feedback

Outcomes:

- ✓ Discuss results with MSWG and MAI for improvement
- ✓ Integrate data into KPI dashboard
- ✓ Document findings in report
- ✓ Update ESCO metrics, if needed

Metrics for collecting feedback

Functionalities supported by ESCO and their relevance per each quality area

	Conceptual coverage	Conceptual Granularity	Knowledge structures	Supporting taxonomies	Right preferred terms	Terminological richness
Concept extraction	Key	Key	Supporting	Supporting		Key
Data entry	Key	Key	Supporting	Supporting		Supporting
Transcoding	Key	Key			Supporting	Supporting
Simple search	Key	Key				Key
Multi-lingual search	Key	Key				Key
Semantic search*	Key	Key	Key	Supporting		Key
Profile comparison	Key	Key	Supporting			
Data collection	Key	Key				Key
Data aggregation	Key					

*Job-matching is an application of semantic search

Table 2- Relevance of ESCO functionalities per quality criteria

Metrics for collecting feedback



Categories for evaluation criteria

Measuring Relevance

Evaluation Criterion: RELEVANCE/ APPROPRIATENESS

Supported functionality by ESCO	Examples of indicators	Sources of verification	Quality criteria addressed
Concept extraction (parsing)	1. Frequency of occurrence of ESCO concepts per language compared with original dataset (structured or unstructured text). 2. Matching frequency between an occupation and the skills declared by users when using ESCO concepts	Analysis of CVs, Job vacancies, learning outcomes	Conceptual coverage Conceptual granularity Terminological richness
Data entry Simple search Multi-lingual search	3. % of ESCO preferred terms used when users search for or type their occupations and their frequency of use per each language. 4. List of terms that users use but are not captured in ESCO (new occupations and skills) and their frequency of use per each language 5. % of relevant automated suggestions of skills and occupations per language 6. % of concepts that have been identified by users as not relevant/too vague/difficult to understand	User behavior (search terms, log terms) when users create their CV, job-vacancies or online profile	Conceptual coverage Conceptual granularity Terminological richness Knowledge structures

How well does ESCO cover the terminology and linguistic coverage of the labour market?

Measuring Relevance (contd)

Semantic search and job-matching	7. % of relevant matches of candidates to jobs per language and economic sector/job level.	As assessed using job matching algorithms, web semantic search engines	Conceptual coverage Conceptual granularity Terminological richness
Profile comparison	8. % of relevant learning opportunities offered to candidates based on ESCO competencies 9. Most commonly used skills and competencies across industries and occupations	End-Users' feedback	Conceptual coverage Conceptual granularity

How well does ESCO cover the terminology and linguistic coverage of the labour market?

Measuring Efficiency

Evaluation Criterion: EFFICIENCY	
Examples of indicators	Means/sources of verification
How high were the costs of implementing ESCO in your services? How many people worked to implement ESCO in your system? Could this cost have been reduced?	Interviews/Surveys
To what extent were the costs and benefits of using ESCO in a reasonable proportion to each other?	
Did you receive feedback from users signalling misunderstandings or technical issues when using ESCO? If so, please explain.	

*How easy was to implement ESCO?
What's the cost-benefit analysis?*

Measuring Impact

Evaluation Criterion: IMPACT		
Business use cases	Examples of indicators	Means/sources of verification
Job-matching	Overall, how well does ESCO support job-matching in your services?	Interviews/surveys
	What are its main benefits in your business model?	
	What is the level of satisfaction of your clients/users towards your job-matching services?	
Career guidance	Overall, how well does ESCO support career guidance/development in your services?	Interviews/surveys
	What are its main benefits in your business model?	
	What is the level of satisfaction of your clients/users towards your career guidance/development services?	
Curricula design	Overall, how well does ESCO support curricula design in your services?	Interviews/surveys
	What are its main benefits in your business model?	
	What is the level of satisfaction of your clients/users towards your curricula design services?	
Big data analysis	Overall, how well does ESCO support big data analysis of the labour market in your services?	Interviews/surveys
	What are its main benefits in your business model?	
	What is the level of satisfaction of your clients/users towards big data analysis services?	

How is ESCO attaining its goals per each use case?

Thank you for your attention!

Q&A
Suggestions & recommendations