ESCALATE

Structure for documenting and developing an Escalator model

Contents

List of Abbreviations

ESCALATE	Coordinated Higher Institutions Responses to Digitalisation, Erasmus+ KA2 - Cooperation for innovation and the exchange of good practices, KA203 - Strategic Partnerships for higher education
EU	European Union
WP	Work Package

Useful Definitions[1]:

Digital Skills: Competences in and / or knowledge of IT tools including computer programs and programming languages.

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/807830/No_Longer_Optional_Employer_Demand_for_Digital_Skills.pdf

Digitisation / Digitalisation of Jobs: Job automation by means of computer controlled equipment.

Baseline Digital Skills: Digital literacy skills that employers ask for in the vast majority of jobs across all sectors in the UK labour market. Includes spreadsheet and word processing tools like Microsoft Excel and Microsoft Word, as well as enterprise management software like Oracle or SAP. These proficiencies are increasingly becoming a basic skill requirement for a majority of occupations.

Executive Summary

1 page explaining:

- What you did
- What smart specialisation sector you chose
- Who you worked with
- What gaps you found
- The main recommendations for regional policy action
- Any recommendations for changing the escalator approach and Model

Methodology

Please describe the main research steps involved in developing this Report.

- How you mapped the provision in the region
- How you built Policy Relationships
- How you built Stakeholder relationships
- How you identified the smart specialisation sector for the Escalator
- How you identified the gaps in provision
- How you built the new Escalator
- How you will take the work forward

Suggestions for methodological approach:

Background to the ESCALATE Project

The ESCALATE project was the subject of a successful application to Key Action 2 – Cooperation for Innovation and the Exchange of Good Practices – of the Erasmus+ programme submitted by West University of Timisoara to the Romanian National Agency. The project has been developed by six partners from five EU countries, namely five universities and an independent company, which specializes on foresight and prospective - strategic studies for the public and private sector.

The official start of the ESCALATE project is 01.11.2019 and it is a 24-months project with the end date being 31.10.2021.

The aim of the project is to assist universities in implementing activities designed to increase the levels of digital competences for employability, upskilling, according with a growing range of employment generated by the digital economy, aligned with the needs of and opportunities offered by the labour market and linked to professional profiles.

The primary focus is to understand digital education disruption and to enable open-source technology and innovative solutions for both educators and students, leading to increased learning-outcomes that meet the learning needs of students whilst also being relevant to the labour market and societal needs (creating a 'better' digital future).

Our target groups are higher education institutions (HEI), education providers, teachers, learners for existing and new digital skills provision. Indirect target group consists primarily of those citizens with low levels of digital skills at risk from digitalization facing a keen need to acquire the digital knowledge and use of digital technologies, but also labour market (LM) forecasters such as labour market observatories.

The project has two linked objectives. Firstly, to help universities understand the scale and depths of the challenges they face from digitalisation - to enable them to formulate effective policy and education system governance - by developing and making freely available new methods and techniques in digital skills acquiring, foresighting and forecasting. We will explore the state-of-the-art before developing and testing the new materials across 6 major themes.

Secondly the project will trial the potential of a new innovative practice (a Digital Skills Escalator) across a selected region in each partner country to test its potential as a mechanism for both identifying where there is unmet demand and subsequent need for new digital skills provision and as a means of building a more holistic offer from education providers. This report addresses this objective for our region.

The University of Exeter has summarized existing practices and lessons learned from their work developing the Exeter Data Analytics Skills Escalator and has passed this onto partners who will then build policy and stakeholder relationships to enable testing of the model in their own region and policy landscape.

This report will be presented at Partner Meeting 3 where a methodology for utilising the findings with policymakers will be devised. This is likely to include meetings, regional reports, workshops, and events.

The Concept of a Skills Escalator

Escalators are relatively new developments that seek to achieve the following two related, but not identical, aims.

1. To ensure a region has sufficient citizens skilled in a particular field/sector critical to economic success.
2. To ensure that the skills and training needed to enter or progress in this field/sector are available locally, at all levels.

The former can be understood as a driver of economic success and the latter is more concerned with inclusive growth. As a project we are looking specifically to develop Digital Escalators where the skills at the 'lower end' of the qualifications can be quite generic but will link into a very specific key sectoral need at the higher end. Linked to a City or Region's 'smart specialisation'.

A good example of this is the existing Exeter Data Analytics Skills Escalator is relatively broadly defined. It encompasses topics such as:

- Statistical understanding
- Digital and programming skills
- Use of AI and high end algorithm development for the analysis of 'big data'
- The translation of environmental intelligence into new products and services and local growth.

Put simply the Escalator is a pipeline of skills, or perhaps more accurately a 'funnel of skills', linked to a specific smart specialisation sector. The fact that a significant proportion of individuals may apply these skills usefully outside the prioritised smart specialisation sector is not problematic. Having a relatively broad, and some might say flexible focus (in which the 'environmental' focus can be picked up or dropped, as convenient) enables engagement across a wide range of educational and other partner organisations and access to a wider range of opportunities.

The Escalator Model is not intended to be a fixed journey from school to Higher Education and CPD but instead is designed for people to enter and leave when necessary. Its purpose is to promote discussion, engagement and coordinated partnership activity.

The digital skills pipeline

In this section you will both:

- Explain what you found when you mapped your 'digital skills pipeline' (digital education provided from school age to the workplace and include academic and vocational qualifications at all levels).
- Explain what you found when you mapped existing provision and education providers.

NOTE - Ensuring that residents in each of the regions involved can benefit from the growth of its most important sectors is an important part of the 'Escalator' concept. We envisage, based on existing experiences - that the Escalator includes elements both of traditional digital inclusion whilst also recognizing the sector has real potential for jobs growth in good quality, well paid vocations.

Therefore, you will include detail on activities around:

- What digital skills are taught at all levels / ages of schooling
- What digital skills are taught at Colleges in your region
- What digital skills are taught at Universities in your region
- What CPD opportunities are available – especially in your smart specialisation digital sector
- How is the region raising young peoples' awareness, interest and attainment in digital skills and careers
- Where there are digital skills gaps in the workplace (and exploring mechanisms to fill these)
- How is the region seeking to ensure computing and ICT is delivered across a region's schools
- Are there models of workplace assessment for digital skills weaknesses? What are they?
- Is there community delivery of digital skills for digital inclusion? What form do they take (ESF etc.)?
- Is the region ensuring growing access to vocational and academic courses in digital skills at school and 16-18 levels
- Is the region encouraging 'retention' for those taking digital qualifications – and how?
- Are universities aware of the priority sector and training graduates and postgraduates for it? If yes – how?
- Are universities encouraging placements and internships opportunities in the sector

The Policy context in our city/region

Smart specialisations

What are the smart specialisations that will be most important to securing long term high quality jobs in your city/region?

Which smart specialisation 'sector' have you chosen to have the Escalator in and for what reason did you choose it?

NOTE – they do not need to be formal sectors but can be something more specific like 'photonics' or 'marine biosciences'

Your city/region's 'education and skills' strategic priorities aimed at your chosen sector

How did you engage with your own (sub) regional government to build relationships with the policymakers who will be critical to implementing the recommendations from your work.

How did you engage with other core stakeholders critical to driving developments in this geography and sector.

Describe the regional and local policy initiatives in this sector that will impact on education, skills and employment.

Important national priorities influencing your chosen sector

Describe national as priorities focused on this smart specialisation.

Escalator partners

Describe who you worked with to (policy, training, skills, economic and other stakeholders) in this work and who will be taking forward your work in this sector and geography.

- How did you contact them?
- Did they help with the work?
- How are you going to maintain the relationship to build the Escalator over time?

Aligned Investments

Provide details of:

- Similar innovations to the escalator in the region.
- Other major investments in skills impacting on digital sector and the smart specialisation sector chosen

Model creation

NOTE - The steps described in previous sections explore how you developed your new Escalator which is depicted below.

Your Escalator Model will include all levels of academic and vocational learning and this will include a particular focus where gaps currently exist.

Include a graphical depiction of your escalator below:

Resultant Skills Priorities and Recommendations

Digital Skills Gaps in the City/Region needing to be addressed

Higher Level Smart Specialisation Sector skills gaps needing to be addressed

Recommendations to tackle the above Skills Gaps

Recommendations for how the Escalator Model can be improved if used again