



# Peer review document of Wales.

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## **I. Introduction, objective and background information of the peer review exercise in Wales**

### **What is a peer-review and the scope of this document?**

This document constitutes the last step of the Welsh peer review, which is a learning exercise part of the Manumix project.

Peer reviews can take different approaches, as explained by Nauwelaers (2015), from which OECD and EU peers reviews can be highlighted, mostly focused at the national level. In addition peer reviews at the regional level have been pushed in the last years by both the Interreg programme and the Joint Research Centre (S3 Platform), the latter focused on Smart Specialisation Strategies. Some peer reviews are very intense in time and are proposed to answer a narrow question, while others focus on more broad aspects. This is the case of this exercise within the Manumix project.

The objective of a peer review exercise is not transferring good practices from peers, but to enlighten a process of policy learning. It is important not to forget that in regional innovation policies there is not a single recipe or 'one size doesn't fit all' (Tödting and Tripl, 2005) so the recommendations from peer reviews have to be contextualized in the region after the process has finished.

Generally, three phases can be distinguished in a peer review exercise:

1. Preparation: This phase includes the elaboration of previous material or documentation. This could include a background document, elaborated either by the peered region or by an external expert. The objective of this document is to inform the peers about the policy or issue which will be the focus of the peer review exercise, not to do an analysis or provide with solutions to the peered territory. In addition this phase includes the mobilization of the resources needed for the peer review, which are the persons that will take part in the implementation phase from both the peered and the peers.
2. Implementation: This is the phase in which the analysis of the background documentation from the peers and the interactions among the peered, the peers and the external expert in some cases take place. This phase varies depending of the format of the peer review exercise. It could take a year or a month and of course the result an in-depth analysis resulting from the exercise varies depending of this format. It normally includes meetings among the participants of the peer review, but also workshops are an option for the implementation.
3. Incorporation: This includes the dissemination of the results of the exercise as well as defining the next steps that the peer region will follow after a consequence of the exercise. This document belongs to this third step and provides recommendations to be considered for implementation in the region.

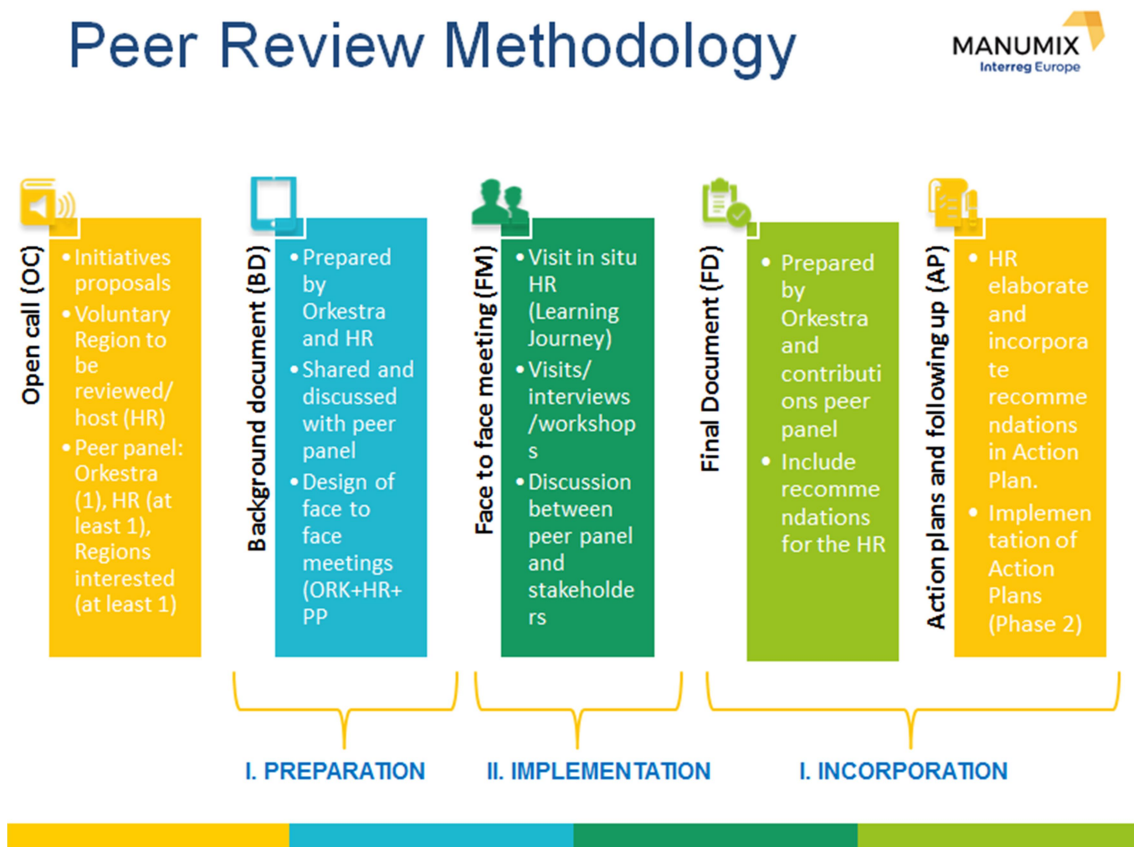
## Objective and methodological steps followed in Lithuania's peer review

Following the peer review methodology agreed by the partners of Manumix, and as depicted in Figure 1, the peer review exercise started with an open call to partners in which the partner regions defined a theme in which the peer review exercise should focus and the peer review processes in which they were interested in taking part as peer reviewers.

Concretely, in the case of Wales, the region has set as a goal for the peer-review to *to learn evaluation approaches to innovation policy*.

In regards peer partners, Lithuania's partners have been the peer reviewers in Welsh peer review exercise, together with the advisory partner Orkestra.

Figure 1. Peer review methodology in Manumix



The peer review process has had three phases:

1. Preparation: a background document was prepared by Orkestra (advisory partner), in collaboration with Welsh Government, which served, together with the baseline study document, as the basis of the next step.
2. Implementation: the Lithuanian partner and Orkestra analysed the documentation and prepared questions for the face-to-face meeting developed in Wales. The face-to-face meeting was carried out in 11<sup>th</sup> July in Cardiff, Wales. The meeting consisted of

presentations and discussion of challenges faced by Welsh Government in regards evaluation and its role in the design of innovation policy mix. A wide representation of Welsh government and other institutions took part in the peer review. Concretely, members of Welsh Government innovation department, WEFO, Innovate UK and Innovation Advisory Council Wales. The peer review group from Lithuania was composed of partner members and stakeholders, who together with Orkestra participated in the discussions and the elaboration of the conclusions in the next phase.

3. Incorporation: During this phase, this final document, which incorporates the results of phase 2 has been produced by Orkestra with inputs from MOSTA. This report constitutes an input for dissemination in the peered region as well as an input for the action plan that the peered region has to deliver for the Manumix project.

### Background information

The background document of the Welsh peer review contains more detailed information about the instruments and policy-mix selected by the Wales for the Manumix project. The main characteristics of the three programmes are summarised in Figure 2.

**Table 1. Manumix Advanced Manufacturing policy mix in Wales**

Instruments	Objective	Beneficiaries	Type of instrument	Year of Launch/ budget
<i>Smart Innovation</i>	<i>To increase the innovation awareness and capability of Welsh businesses and assist them to access financial support to grow their investment in R,D&amp;I</i>	<i>SMEs, Big companies</i>	<i>Economic instrument Grants TRLs from 3 to 8</i>	2015/ £2m
Smart Cymru	To provide financial support to Welsh businesses to grow their investment in R&D&I	SMES, Big Companies, Group of Firms	<i>Economic Instrument; Voucher. Horizontal instrument, TRLs from 3 to 7</i>	2014/ £10.5 million
<i>Smart Expertise</i>	<i>To increase commercialisation of Research, Development and Innovation (R,D&amp;I) within research organisations in collaboration with industry</i>	<i>Universities, Groups of companies</i>	<i>Economic instrument Grants TRLs from 3 to 7</i>	2016/ £4 million
<i>Smart Partnerships</i>	<i>To support collaborative projects, with a clear focus to increase the capacity and capabilities of Welsh businesses to develop R&amp;D activities by linking them with Research Organisations and an associate, to work on a specific project to develop new products, processes and services in key areas of Smart Specialisation.</i>	<i>SMEs &amp; Universities</i>	<i>Economic instrument Grants TRLs from 3 to 7</i>	2016/ part of Smart Partnership
<i>SBRI</i>	<i>Driving innovation through public sector procurement</i>	<i>All possible beneficiaries</i>	<i>Regulation National/regional instrument TRLs from 6 to 8</i>	2013/ £5m to date

## II. Evaluation of Welsh policy mix: insights and recommendations

This is the main section of the peer review document and includes the main recommendations from the peer region (Lithuania) and the advisory partner (Orkestra).

### Current monitoring and evaluation of Manumix policy-mix instruments

This section provides a summary of the main current elements that shape the monitoring and evaluation practices of the Welsh innovation policy-mix, as well as it summarises the main challenges. The basis for this summary comes from inputs from the face-to face stage of the peer review process as well as different documents provided by the Welsh Government.

The main challenge identified for the peer review is to improve the evidence for decision-making through monitoring and evaluation.

### Monitoring and evaluation process

Most of the Welsh instruments considered for the Manumix project are funded by European structural funds. For those instruments there is a detailed monitoring and evaluation approach. With regards monitoring, this is conducted on a quarterly basis and data is basically collected by reviewing regular project reviews. The process of evaluation is conducted at both project and programme level.

- *Evaluation at project level:* We can distinguish three evaluation moments: an inception evaluation (at the outset) a mid-point evaluation (usually a process evaluation) and an ex-post evaluation (assessing results). External research companies are predominately used to conduct the evaluations. The Welsh Government (WEFO) has a dedicated monitoring and evaluation team; within the team there are fund-specific researchers who agree evaluation plans for each operation (including specifications for external contractor procurement). Evaluators are engaged early-on in the process to ensure evaluation is not an afterthought. The project deliverers are responsible to address relevant recommendations but the funder should agree an action plan and ensure it is implemented.
- *Evaluation at programme level:* Programme evaluations tend to be undertaken the latter half of the 7-year programme cycle to assure there is sufficient evidence. The programme level evaluations are undertaken by external evaluators. Methods for evaluation include a wide range of techniques, either quantitative or qualitative. Among the quantitative techniques counterfactual propensity score matching via data linking can be highlighted. Surveys and a range of performance indicators collected from the supported business constitute the main source for analysis. In addition, case studies and interviews to understand the impact and effectiveness of support are conducted from the qualitative side. At a programme level, evaluations are used to inform amendments to programmes during their life and to directly inform future programmes.

With the evaluation approach there are some issues that have to be taken into consideration for future improvements. These issues are summarised as follows:

- There is difficult to assess long-term impacts as evaluations under EU rules follow the principle of their immediacy and the difficulty of finding the right methods. This is a very important issue for innovation as impacts are seen in a long term basis.
- It is difficult to conduct quantitative analyses based on control group approaches as micro level data on unsupported business can be hard to find both in UK statistics and in surveys as they are focus only on medium/big firms. Indeed, micro-level data are not in line with national macro data, and therefore comparisons between regions are complex.
- Measuring the impact of the policy-mix at different levels (Wales, UK and EU) is a real challenge.

### **Why to improve evaluation? Recommendations for Wales**

This section aims at shedding light about the goals for improving the evaluation of Welsh policy mix. These goals depend not only of the specific situation of the current evaluation system but also on the main needs for learning about the effects of the interventions. In addition, the reasoning behind improving the current monitoring and evaluation system for the policy mix is also explained in this section.

The main challenge identified for the peer review is to improve the evidence for decision-making through monitoring and evaluation.

Three levels of analysis and required evidence could be identified:

1. Contribution of Welsh innovation policy and programmes to UK strategy: Measuring how Wales is contributing to UK strategy and how existing programmes supports innovation development in coherence with UK strategic goals is one of the challenges that have been defined.
2. Monitoring of the Welsh innovation system performance, with a specific focus on Advanced Manufacturing. A more specific analysis of the Welsh system performance could contribute to policy-making as it provides evidence of the current situation but also can be based on a dynamic approach. Although this type of analysis does not provide a cause-effect relationship between competitiveness and innovation performance and policy practices it gives inputs for policy-learning.
3. Improving the current monitoring and evaluation practices at programme and project level. Despite the good established monitoring and evaluation system as described in the previous sections, some areas of improvement have been identified. These are focused on the lack of impact assessments for long-term investments and lack of quantitative data for counterfactual approaches, especially in the case of small businesses.

### ***Contribution of Welsh innovation policy and programmes to UK strategy***

In order to assess the contribution of Welsh innovation policy-mix to UK innovation strategy in order to deliver a stairway to excellence (see Figure 2) a meta-evaluation could be conducted,

making the most of previous and existing monitoring and evaluation documents. The proposed steps for conducting it are the following:

**Step 1:** Reconstruct a general logic framework for establishing the relationship of Welsh interventions with higher level objectives, that is, the relationship of intervention rationale (problem that aims at addressing) and the direct results of the intervention.

**Step 2:** Design of a template to collect information on evaluation evidence. In that template some concepts such as the instruments' objectives, rationale for them, main characteristics, beneficiaries, and results from the evaluations could be included.

**Step 3:** Assess which evaluations to include in the analysis as not all the evaluations might be valid for the exercise. Lacking of data or incoherence with regards higher established objectives could be reasons for not including all the evaluations as object of study.

**Step 4:** Analysis of robustness of evaluation of selected interventions. An additional step to the previous one could be conducted in order to make a more in-depth analysis of the robustness of the selected evaluations according to some established criteria.

**Step 5:** Analysis of types of interventions and its relationship with higher level objectives. This analysis could be done either quantitatively or qualitatively. Categorising the evaluations in terms of type of evaluation, target group and impacts achieved could be a first step for the analysis. Afterwards, the method to be employed should be established. Either a qualitative analysis or a quantitative one could be conducted to determine the programmes' contribution<sup>1</sup>.

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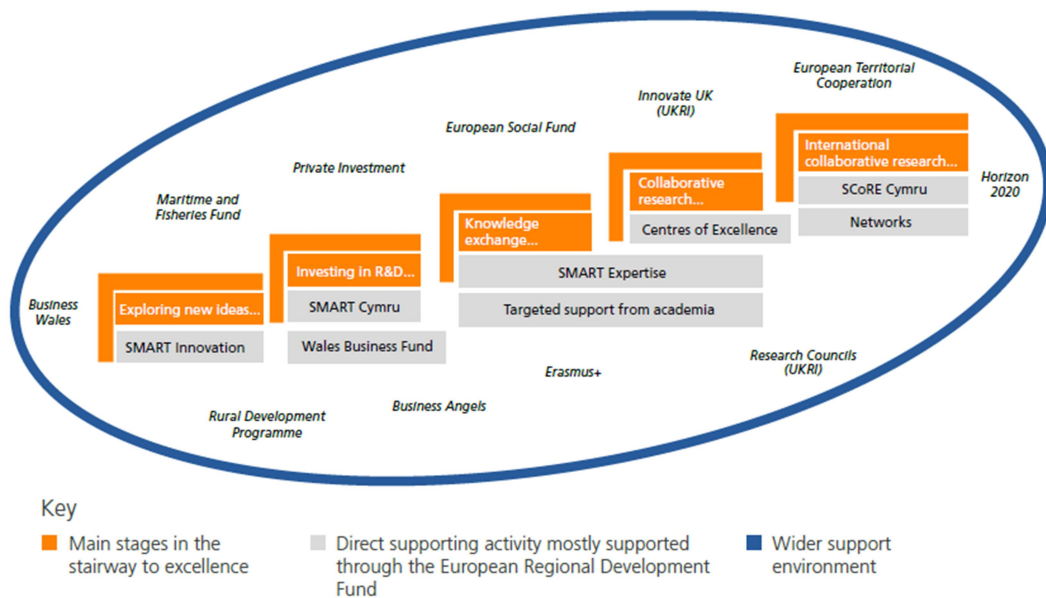
<sup>1</sup> Further details about a possible method for this analysis can be found in SQW Consulting, (2009)



Figure 2: Welsh stairway to excellence

## Key Objective: Build a 'stairway to excellence'

EU funds have given Wales the opportunity to make significant improvements to its research and innovation capacity. Figure 8 shows how key investments and support are aligned along a 'stairway to excellence', so whether you are a Welsh business exploring a potential innovation for the first time or an excellent research group looking to build an international collaboration, there is support available. Some organisations/individuals may not yet be ready to access competitive funding such as Horizon 2020, but the activity supported by the 'stairway' (and the other key objectives) will encourage them to consider applying for funding in the medium or long term and support them when they do.



Source: Welsh Government

### *Recommendations for improving the monitoring of the Welsh innovation system performance*

Monitoring the system performance in terms of innovation and competitiveness would provide with key insights for policy-learning approaches. In that sense, and although there are some established methods for measuring Welsh performance as compared to other regions in Europe, such as the Regional Innovation Scorecard, these do not provide an accurate picture of the current development stage and its evolution. In order to carry out a good performance analysis is good to make comparisons as then it is feasible to extract conclusions. However, a comparison with UK average in this case or EU average does not provide the 'right picture' of the Welsh performance. Following Navarro et al. (2014) for regional benchmarking to inform strategic decisions has to be established among homogeneous regions. They have developed a methodology that identifies the closest regions according structural conditions. This methodology is available in an on-line tool in the Smart Specialisation Platform. In Figure 3 the nearest 15 regions for Wales are shown as an illustration of how this tool works. This would constitute the first step for a regional benchmarking.

Figure 3: Homogeneous regions for Wales excluding the regions within UK

## Interactive tool

region

Wales (UKL) ▾

number of peers

15 ▾

exclude same country peers

refresh

The 15 nearest regions to <b>Wales</b> (UKL) <small>(regions within the same country have been excluded from the comparison)</small>	Distance index
Niederösterreich - Austria (AT12)	0.0148
Pays de la Loire - France (FR51)	0.0161
Schleswig-Holstein - Germany (DEF)	0.0173
Niedersachsen - Germany (DE9)	0.0179
Aquitaine - France (FR61)	0.0203
Hessen - Germany (DE7)	0.0221
Bayern - Germany (DE2)	0.0221
Rhône-Alpes - France (FR71)	0.0223
Poitou-Charentes - France (FR53)	0.0236
Nordrhein-Westfalen - Germany (DEA)	0.0238
Brandenburg - Germany (DE4)	0.0238
Oberösterreich - Austria (AT31)	0.0248
País Vasco - Spain (ES21)	0.0250
Rheinland-Pfalz - Germany (DEB)	0.0252
Västsverige - Sweden (SE23)	0.0260

### How it works

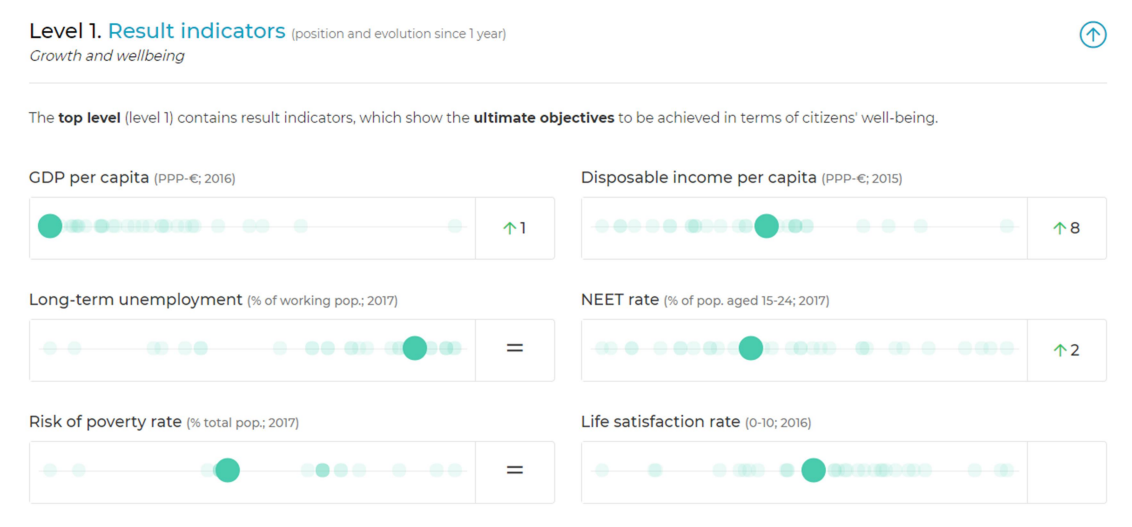
1. **Select a region** in the top window
2. **Choose the number of reference regions** you want to be displayed
3. **Decide** if you want to **exclude** regions from the **same country** from the results
4. **Press "refresh"** to get the results
5. A list of regions will appear on the right side of the screen sorted in descending order from the ones that are more similar (top) to the less similar (bottom) to the region selected
6. The order is given by a **synthetic index of structural distance** (lower value=structurally closer to the selected region) explained in the methodological paper.

Note! Lower index value = region closer to the selected region

Source: Orkestra-Basque Institute of Competitiveness & S3 Platform <http://s3platform.jrc.ec.europa.eu/regional-benchmarking>

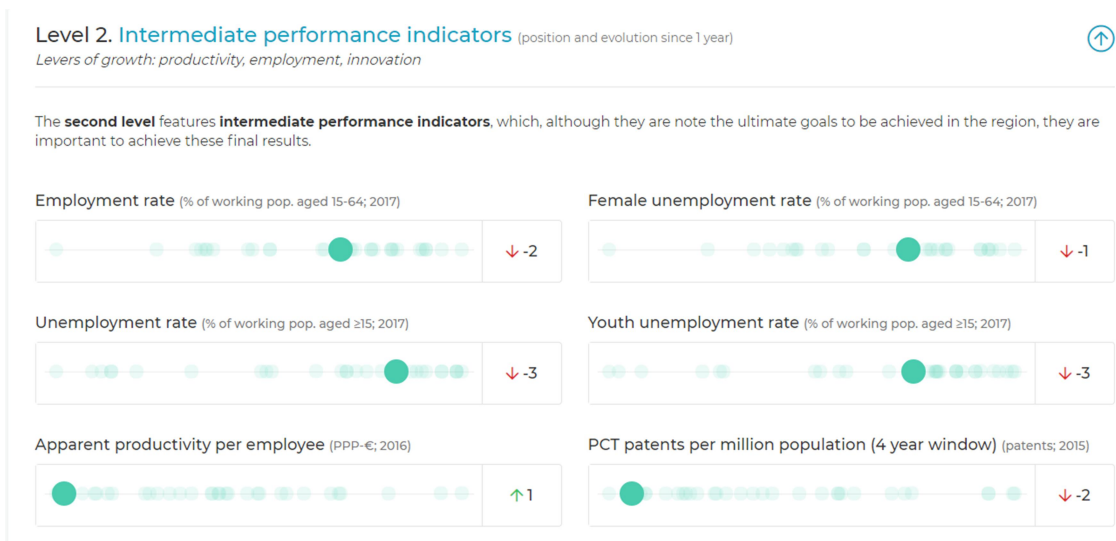
Once the reference regions have been identified an analysis based on secondary statistical data can be conducted, according to selected indicators that measure regional competitiveness, innovation or sectoral performance, even the one reflected in advanced manufacturing. As an example of some of the analyses that can be conducted in Figure 4, Figure 5 and Figure 6 we can observe the situation of the Wales as compared to its reference regions in some selected indicators. Dynamic analyses are a powerful input for policy learning purposes.

**Figure 4: Welsh performance in competitiveness result indicators in comparison to its reference regions**



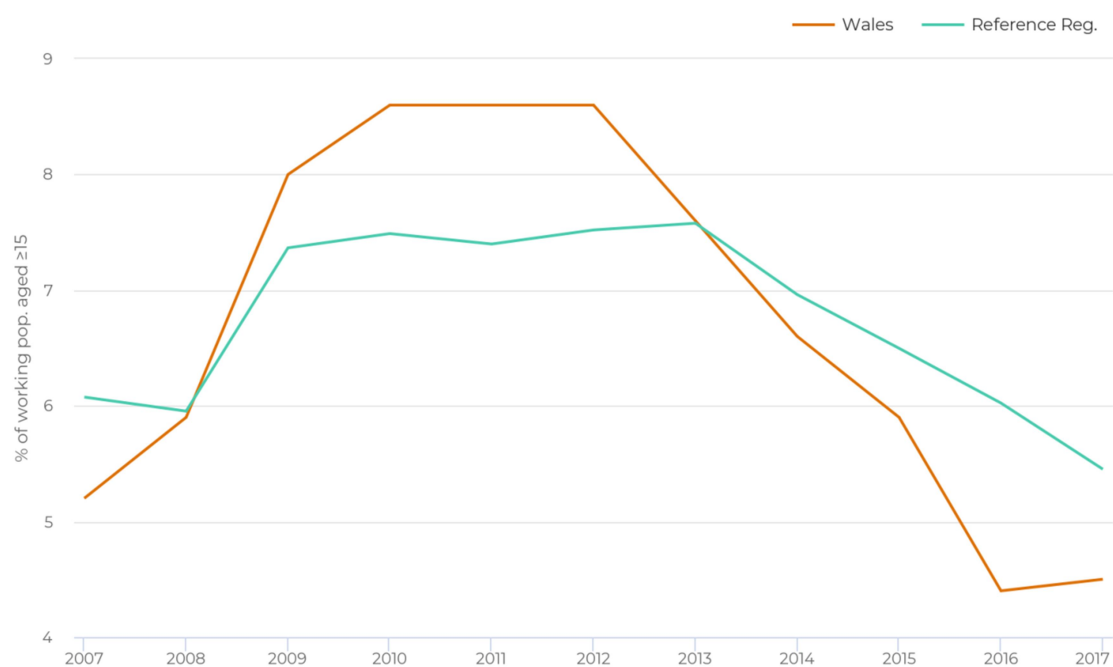
Source: Orkestra-Basque Institute of Competitiveness <https://www.orkestra.deusto.es/competitiveness-observatory/en/UKL/dashboard>

**Figure 5: Welsh performance in competitiveness intermediate indicators in comparison to its reference regions**



Source: Orkestra-Basque Institute of Competitiveness <https://www.orkestra.deusto.es/competitiveness-observatory/en/UKL/dashboard>

Figure 6: Evolution of Welsh unemployment rate as compared to its reference regions



Source: Eurostat. Prepared by Orkestra.

Source: Orkestra-Basque Institute of Competitiveness <https://www.orkestra.deusto.es/competitiveness-observatory/en/UKL/group-detail/2>

### ***Recommendations for improving the current monitoring and evaluation practices at programme and project level.***

Major challenges to improve the current monitoring and evaluation practices rely on the programme's evaluation, especially related to the lack of data for conducting quantitative analyses. To this regard, and in order to be able to build a sound control group there are some possible alternatives:

- To include a survey in the application forms of the programmes so it is possible to collect data of the beneficiaries and the solicitors that haven't been awarded so it is possible to create a control group.
- To conduct a survey to both beneficiaries and non-beneficiaries at different moments of the programme's life-cycle.
- To use innovation specialists as a mean for collecting data among the whole firms' environment.
- To follow the path already started and use qualitative techniques. As alternatives to interviews discussion groups between beneficiaries and non-beneficiaries could be a good option. Another possible alternative could be the use of the methodology of participatory evaluation. To this regard, it could be helpful to review current EDP practices in the context of smart specialization. As an example the region could develop participatory policies by introducing a standard for participation in policy formulation, implementation, and evaluation. For example, by creating a set of rules

and methodologies to engage people in each step of policy formulation, implementation and assessment. Lithuania has implemented this practice.