



# Learning document

Innovation policy mix for Advanced Manufacturing

## Brief introduction

This document highlights the learnings that the MANUMIX partners have pointed out as the most relevant from the first learning journey held in Bilbao in May 2017 around the first pillar: ***Innovation policy-mix in Advanced Manufacturing***. These learnings are organised around different building blocks: learnings around the Advanced Manufacturing Strategy in the four MANUMIX regions; learnings about the overall portfolio of instruments; learning about the individual instruments and their evaluation and finally learnings about the policy-mix or more precisely learnings about the instruments combinations.

The ideas reflected in this document come from different sources. First of all the baseline studies provided us with an initial idea of the ‘hot issues’ for the Manumix partners that could constitute the basis for the learnings. In addition, the discussions that took place during the learning journey as well as specific comments from all the MANUMIX partners and stakeholders that participated in the learning journey have fed this document

## Learnings around the Advanced Manufacturing strategy in the four territories

There are different understandings and approaches to Advanced Manufacturing, which lead to different rationales behind the policy mixes. As an example of this, the Basque strategy is focused towards materials, processes, means and systems, whereas in Piedmont Advanced Manufacturing is understood as a KET. The different approaches of the strategies are also shaped by the different territorial contexts and of course the different industries and industrial specialisation in the regions. However, the different strategies also provide a basis for learning, despite the above mentioned differences.

*I think there is a lot to learn from the different approaches to Industry 4.0. I think there has been very interesting discussions around productivity gains by equipment, automation... and just understanding the different approaches, the synergies, the complementary aspects of different projects. Greg Green, Welsh Government, Wales.*

It is not only the strategy focus what differs from territory to territory, but also the different governance settings established around the smart specialisation strategy in general and advanced manufacturing strategy in particular. During the learning journey governance settings and coordination mechanisms were presented for each territory, leading to the conclusion that governance conditions instruments and innovation policy-mixes, not only in their design and implementation, but also in their evaluation.

## Learnings about portfolio of instruments

In the learning journey the overall picture about the different policy instruments each government has implemented in the framework of their smart specialisation strategy and with impact on Advanced Manufacturing were presented. In addition, the selection of the specific instruments that are going to be analysed in more detailed in the MANUMIX project were presented and analysed. With regards these instruments, one of the conclusions that come from both the baseline studies and the discussions held during the learning journey is that the portfolio of instruments in each territory is comprised of a range of different instruments covering high levels of the TRL and

different policy domains. More specifically, all the territories have selected instruments that cover TRLs from 3 to 7-9, which are considered TRLs closed to the market. With regards the policy domains, some the instruments are more related to technology (as in the case of Lithuania) whereas in other territories the focus is wider, such as in Wales, in which instruments cover innovation or in Piedmont and Basque Country where instruments from the industry domain are also included.

*In our case instruments are grouped according to end purpose and we look at them and frame them in those groups. Now we are working on the instruments which are framed to work innovation and R&D. And we have seen other colleagues that make mixes of different fields. Let's say... There were mixes of instruments with the field of innovation combined with instruments of the field of industry. And that complexity and that approach were very interesting. (...) And we are eager to learn more from our colleagues. Justinas Lapienis, MOSTA, Lithuania.*

All the territorial portfolios show a high dependence on economic instruments and indeed only Wales has included in its selected portfolio an instrument that can be considered a regulatory instrument (pre-commercial public procurement), although it also has an element of economic instrument. In addition, it is worthy to mention that most of the instruments are supply-side instruments, what it also reflects the reality of regional innovation policy.

*It is very interesting the approach other regions have beyond subsidies, as we sometimes don't think about other instruments different from subsidies. The reality in each region is very complex. Even the concept of advanced manufacturing in each region conditions the policy-mix. Iñaki Ganzarain, Innobasque, Basque Country.*

Regions are not isolated islands either homogeneous territories. Administrative levels for innovation policy coexist and impact on specific territories, leading to a complex situation. During the learning journey an overview of the different administrative levels that are involved in each territorial policy-mix was shown. As an example of the diversity of administrative levels with instruments that impact on Advanced Manufacturing the cases of Wales and Piedmont with instruments in cooperation with national governments can be mentioned, as well as the existence of instruments at sub-regional level with impact on Advanced Manufacturing as is the case of the Basque Country. Nevertheless, the majority of instruments are regionally/nationally administered, even though in some cases the funds come from the European Union.

In addition to the instruments governance, another important issue that affects instruments portfolio is that of path dependence, that is to say, the dependence of past instruments in current times. This dependence is more visible in those territories with a longer history in innovation policy, whereas other territories, such as Lithuania, don't show a high path dependence on previous instruments.

*Many instruments show deep inertia, RIS does not start from scratch. The main part of market failure is already covered by regular instruments. (Alaitz Landaluze, Innobasque, Basque Country).*

## Learnings about individual instruments and their evaluation

Some specific instruments that are implemented in the MANUMIX regions with regards Advanced Manufacturing was presented and identifies as good practices from some partners. These practices are already reflected in each of the individual baselines and will be part of further discussions in the following project's activities but as an example of the best practices identified in this learning journey, we mention the following:

- IR2 in Piedmont as a tool for promoting big consortiums in the Advanced Manufacturing field

*Here we are also looking for something similar so it make me think about how to do it the Italian programme in which they are able to involve in a project 25-30 partners. (Alaitz Landaluze, Innobasque, Basque Country).*

- SBRI as a tool for leverage innovation potential in the region (pre-commercial public procurement).

*We have identified lots of interesting things that we would like to learn more from Wales. From an evaluation point of view I would like to know more about the system they have for collecting evidence, which could be very useful for us. In general I liked the wide range of instruments they have implemented, the variety of their policy-mix. (Alaitz Landaluze, Innobasque, Basque Country).*

- Basque Industry 4.0 as a tool covering high TRLs and adapted to Advanced Manufacturing needs

Finally, some good practices with regards evaluation of individual instruments have been also identified, such as Lithuanian reporting about individual instruments.

## Learning about instruments combinations

The first learning pillar is focused on the innovation policy-mix, meaning the combinations of instruments towards certain strategies or objectives. In the framework of the MANUMIX selected instruments, the interactions analysed are mainly conceived as facilitating interactions among the different instruments in most of the territories. In some of the regions, these effects were intended and planned but in other regions, such as the Basque Country the interactions were not designed and therefore they are unintended.

*Maybe, more reflection on the combination of instruments is needed: (...), periods, targets... Multidimensional approach to the policy mix. (Susanna Longo, Finpiemonte, Piemonte).*

This gives room to evaluation as a learning tool that goes beyond evaluating instruments effects and incorporates modifications leading to complementary effects when taking into account the policy-mix approach.

*We have to introduce cooperation among instruments. Sometimes we focus on the instruments management- we always try to do it the best we can do it-trying to achieve the greatest impact- but maybe we should focus more o the cooperation among instruments. It is exciting to do this as we can work on this after the decisions have been taken. (Alberto Fernández, SPRI, Basque Country).*

The combination of the policy-mix is not fixed in each region and it depends very much on the user needs or the beneficiary pattern of usage. Therefore there is not one size that fits all, or a recipe for all regions.

*It depends on the situation of the company. Some companies start in some phases, some others in another. (Alberto Fernández, SPRI, Basque Country).*

*The policy-mix depends on the type of enterprise. Some companies are more eager to apply to public funding, or a more familiar to ones or others (Paolo Dondo, MESAP cluster, Piedmont)*

Finally and in order to organise and give more emphasis to the combination of instruments the role of innovation specialists in Wales was highlighted. They offer the different combination of instruments to Welsh companies, even though some instruments do not depend on the regional government and therefore giving a complete and holistic overview to Welsh firms.

Summarising, in the first learning journey, MANUMIX partners had the opportunity to identify best practices and learn from others:

*These projects give us the opportunity of reflect and learn from others. This is essential as listening to others make us reflect about our instruments and policy-mixes. But apart from that, it is really important to reflect taking into account the others point of view and reference. This makes you think of what it could be useful for you and what you want to do. This project gives you the opportunity to learn and reflect about what you already have. This is interesting itself. (Catalina Chamorro, Basque Government, Basque Country).*