



**THINKING  
SMART**

Toolkit for the engagement of  
HEI in regional growth

## 04.2 – Recommendations for the alignment of HEI with regional smart specialisation

SPI

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## 1. Introduction

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This document – O4.2 Recommendations for the alignment of HEI with regional smart specialisation - was developed as part of WP4 - Strategic Changes in HEIs to align with regional Smart Specialisation.

This WP will aim to provide objective action plans for each one of the five HEI partners to support them in adjusting their strategies and offer (with a special focus on the educational offer and teaching/ learning processes, but as well with regard to research and development (R&D), services, etc.) according to the smart specialisation regional/ local needs and priorities. To do so, HEI's strategies will be reviewed based on the results of the entrepreneurial discovery process undertaken in WP3.

The main objective of this document is to provide a summary of the 5 action plans for each one of the universities participating in the project: Universidade de Trás-os-Montes e Alto Douro (UTAD), Universidade Politecnica de Valencia (UPV), Politecnico di Milano (POLIMI), Newcastle University (NCL) and Uniwersytet Łódzki (ULO).

A final note to mention that these actions plans are an overview of what has been done by the universities during the Thinking Smart project and include some recommendations taking into account that work. These are not meant to be exhaustive. In addition, it is important to refer that the work on this topic is always subject to change, so it might be that the actions included in the document are not updated after the end of the project.



## 2. Recommendations for the HEI

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### 2.1 Universidade de Trás-os-Montes e Alto Douro (UTAD)

The gaps and challenges identified during the Thinking Smart project focus on three main areas:

- Training:
  - Better alignment of the academic, staff and research offer at UTAD with RIS3 topics.
  - Increase participation in capacity building programmes.
- Connection with society:
  - Improvement of cooperation mechanisms with civil society, for example, the update of existing platforms such as the Thinking Smart good practices database and toolkit, easily accessible to all interested stakeholders, with information on the projects to be developed and its results.
  - Creation of better communication mechanisms between university, businesses/associations and civil society organizations.
- Research and development (R&D):
  - Increase participation in research and development programmes.
  - Better alignment of the research centers at UTAD.

Taking into account these gaps and challenges, SPI defined 4 actions:

1. Invest in training for the technical staff.
2. Invest in more cooperation and exchange programmes.
3. Improve cooperation mechanisms between UTAD and the civil society.
4. Reinforce support structures for R&D.

#### Action 1.

Invest in training for the technical staff

#### OBJECTIVE:

Develop UTAD's educational and training offer initiatives for its technical staff that is ill-equipped to understand the RIS3 and how UTAD can expand its services in societal

engagement, cooperation, participation in EU-funded programmes, and research and development.

**ACTIVITIES TO DEVELOP:**

- : Organize a meeting with the different departments to understand the main needs of the technical staff.
- : Restructure the existing training offer to address those needs.
- : Provide the means for the technical staff to attend those short courses.

**Action 2.**

Invest in more cooperation and exchange programmes

**OBJECTIVE:**

Expand and improve the two units that support these activities: GAP (Projects Unit) and GRIM (International Relations and Mobility Unit). There is already a strong involvement in Erasmus + and H2020 programmes, as well as other cross-border exchange programmes with universities from the North of Portugal and Galicia. Nevertheless, these actions should be further increased.

**ACTIVITIES TO DEVELOP:**

- : Establishment of additional protocols with international institutions focused on similar thematic areas for the mobility of students, researchers and staff.
- : Development of applications for national (Norte 2020) and international (Marie-Curie and H2020) programmes with the objective to support doctorate and post-doctorate researchers.

### Action 3.

Improve cooperation mechanisms between UTAD and the civil society

#### OBJECTIVE:

Develop stronger links with the civil society, i.e, better communicate the initiatives that are taking place.

#### ACTIVITIES TO DEVELOP:

- : Involve civil society organizations in the different project's dissemination activities.
- : Use of the Thinking Smart platforms (best practices database and toolkit) that will be available in English and Portuguese to disseminate information on the projects and its results to all interested stakeholders. These platforms can be updated and linked to existing platforms at UTAD, for example, the Wine Innovation Platform hosted by Regia-Douro Parque.
- : Create mailing lists to disseminate information.

### Action 4.

Reinforce support structures for R&D

#### OBJECTIVE:

Increase cooperation between its different units as a way of reinforcing R&D activities and strengthen the funding from partnership projects. This will also benefit the strengthening of cooperation with external entities (see Action 2.)

#### ACTIVITIES TO DEVELOP:

- : Creation of a working group (with one representative from each department and the GRIM and the GAP units) that will host regular meetings to define lines of actions and next steps. These meetings could also be attended by external entities (if considered relevant).



- Development of a joint activity plan by the working group. This plan will define actions, responsibilities and indicators functioning as an action plan and monitoring guide. Examples of actions could be the update of the platform (see action 3) with the existing projects and organization of a joint UTAD research day.

## 2.2 Universidad Politecnica de Valencia (UPV)

The gaps and challenges identified focused mainly on the universities – how they can do more on RIS3 – and on the industry – how to increase its spending and investment on R&I. In addition, it is also important to invest more in an optimized connection between universities and industries.

Below it is detailed 4 actions to tackle these issues:

- Invest in a closer cooperation between universities and industries through exchange stays.
- Improve communication mechanisms between UPV and industry.
- Provide training both for companies and university staff.
- Reinforce support structures for the development of patents.

### Action 1.

Invest in a closer cooperation between universities and industries through exchange stays.

#### OBJECTIVE:

The short stays of university teachers and/or researchers in companies would be very useful to develop joint research aligned with the companies' needs and the research interests. In this way, the universities would be more involved in practical applications of their research and the companies see the benefits in investing in more R&D training

#### ACTIVITIES TO DEVELOP:

- Creation of a recruitment and selection committee

- : Development of a pool of companies and researchers interested in participating in the initiative based on a set of criteria, including interests and availability
- : Definition of the working programme, objectives, and duration of the stay between the selected researcher/teacher and the company
- : Definition of the outputs to be achieved during and after the stay

### Action 2.

Improve communication mechanisms between UPV and industry

#### OBJECTIVE:

The universities and the industry are cooperating, but the communication mechanisms are still weak. To improve this, there is a need to create more initiatives that allow them to work more closely.

#### ACTIVITIES TO DEVELOP:

- : Organisation of “science meets business” annual events where researchers can present their work and activities and companies can explore ways of integrating R&I in their work
- : Creation or improvement of communication channels such as Ask UPV with online platforms to ask specific requests

### Action 3.

Provide training both for companies and university staff

#### OBJECTIVE:

The staff of the companies in the region have little scientific training and are not so much aware of R&I opportunities. Staff from universities have little knowledge on EU Structural Funds. These two aspects can be tackled with the provision of training for both.

**ACTIVITIES TO DEVELOP:**

- : Develop short training sessions (online and face-to-face) for the companies that can be included in their training programme on how R&I management
- : Promote training sessions for the staff at universities on how to better understand EU Structural Funds
- : Develop short fact sheets/guides with information on the Funds

### 2.3 Politecnico di Milano (POLIMI)

Taking into account the information collected by POLIMI in their WP3 activities, the following actions are proposed:

1. Invest more in the communication and cooperation between departments and regional authorities
2. Monitor the actual impact and implementation of the RIS3
3. Disseminate and advertise the ongoing initiatives (and success stories)

**Action 1.**

Invest more in the communication and cooperation between departments and regional authorities

**OBJECTIVE:**

The different departments at POLIMI have a good degree of communication and interaction with the regional authorities and other actors of the RIS3 in Lombardia. To leverage these connections, more investment should be made on this.

**ACTIVITIES TO DEVELOP:**

- : Create a task force between departments to define strategies for a closer interaction (see action point 2 and 3)

## Action 2.

Monitor the actual impact and implementation of the RIS3

### OBJECTIVE:

This monitoring can be done at the POLIMI departmental level by the Heads of Department, but with an involvement of the central level. If a close monitoring with specific key performance indicators are established by the departments, it will be easier to actually measure the impact of the implementation of the RIS3.

### ACTIVITIES TO DEVELOP:

- : Promote department meetings to define the monitoring strategy, namely the objectives and the key performance indicators to be achieved
- : Promote inter-departmental meetings to share and discuss the monitoring strategy
- : Combine the monitoring strategy with the results of action 3

## Action 3.

Disseminate and advertise the ongoing initiatives (and success stories)

### OBJECTIVE:

POLIMI has a vast track record of participation in EU funded programmes (FP7 and H2020). It also has a strong connection with companies in the Lombardy region. However, the dissemination and advertising of the ongoing initiatives (as well as success and failure stories) are not so effective.

### ACTIVITIES TO DEVELOP:

- : Create a specific section on the POLIMI website to disseminate these results and initiatives
- : Include these news in the newsletters, social media and other promotional materials to be disseminated

## 2.4 Newcastle University (NCL)

There are a number of challenges related with lack of communication, monitoring and lack of capacity of industry that can be improved through the adoption of some actions:

1. Monitoring of NCL actions towards RIS3 implementation
2. Closer communication between the NELEP and NCL departments
3. Dissemination of ongoing initiatives
4. Training for companies/ NCL's alignment with RIS3

### Action 1.

Monitoring of NCL actions towards RIS3 implementation

#### OBJECTIVE:

As NCL is a large university where the departments have autonomy, fragmentation is a reality and, therefore, it is more difficult to monitor what is being done by NCL's staff towards the RIS3 implementation.

#### ACTIVITIES TO DEVELOP:

- : Create a working group between all departments with a managing team
- : Define a monitoring strategy (taking into account the research needs and interests and the RIS3 priorities) with key performance indicators, objectives and expected outputs
- : Meet regularly to monitor the results and discuss them (also linked to action 2)

### Action 2.

Closer communication between the NELEP and NCL departments

#### OBJECTIVE:

This action point is closely related with action 1 as the lack of communication would also be improved by the creation of a single contact point – in this case, the working group foreseen for monitoring purposes.

#### ACTIVITIES TO DEVELOP:

- : Define what are the weak points in the communication and how to improve them
- : Use the working group meetings to redefine strategies

### Action 3.

Dissemination of ongoing initiatives

#### OBJECTIVE:

This action is also combined with the 2 previous ones (action point 1 and action point 2) as the decentralized structure does not help the dissemination of the existing initiatives for all the regional actors

#### ACTIVITIES TO DEVELOP:

- : Creation of a specific section on the website with information on ongoing initiatives and their results
- : Use of promotional materials and social media to disseminate information
- : Promote science-business events where regional initiatives can also be promoted

#### Action 4.

Training for companies/ NCL's alignment with RIS3

##### OBJECTIVE:

The funding by businesses of professorships within universities was discussed during the workshop as a possible way of bringing research carried out in universities closer to industry needs. “Professor of Practice” is an idea already used by NCL for visiting professors with a background outside of academia. This could be adapted for the RIS3 priority areas as a way to strengthen the alignment of NCL research with the RIS3. These Professors of Practice could also provide short training programmes for companies on how to better implement R&D inputs in the companies’ work.

##### ACTIVITIES TO DEVELOP:

- Analysis by the relevant departments at the university and by the companies to understand how to adapt and integrate the “Professor of Practice” initiative to the companies’ needs.

#### 2.5 Uniwersytet Łódzki (ULO)

The information collected during the Thinking Smart project on the context of the University of Lodz, the Lodzkie region RIS3 and the challenges and barriers for its implementation show some points that can be further improved.

The main problem is the lack of knowledge on how to establish cooperation between science and business. This can be improved by providing training to both companies and the researchers at Lodzkie region on aspects such as intellectual property rights and science management.

Another problem is the lack of trust between the two sectors, which can be diminished through cooperation activities.

The 4 actions suggested below can further support these needs:

1. Provide training for researchers on intellectual property rights, science management, and commercial approach to research.

2. Provide training for companies on intellectual property rights and commercial approach to research.
3. Promote sessions to explore how to get funding outside the EU programmes.
4. Create initiatives for the promotion of links between science and business, such as working groups and Science meets Business events.

### **Action 1.**

Provide training for researchers on intellectual property rights, science management, and commercial approach to research.

#### **OBJECTIVE:**

Researchers at the University of Lodz need additional training on specific aspects of applicability of science research to the market, namely intellectual property rights, how to manage science research and how to interact with companies, as well as how to better align research with commercial needs.

#### **ACTIVITIES TO DEVELOP:**

- : Disseminate a survey to researchers to understand their actual needs
- : Define training sessions taking into account the needs of the researchers
- : Include the training sessions in the training programme of the University of Lodz
- : Monitor results and impact



### Action 2.

Provide training for companies on intellectual property rights, and commercial approach to research.

#### OBJECTIVE:

The staff of the companies of the Lodzkie region need additional training on how to innovate in their activities and products and how to interact with the science institutions to leverage on the commercial use of the existing research done locally.

#### ACTIVITIES TO DEVELOP:

- : Collect the needs of the staff to adjust the training offer
- : Include the training sessions in the training programme of the companies
- : Evaluate the impact and if any changes are needed

### Action 3.

Promote sessions to explore how to get funding outside the EU programmes.

#### OBJECTIVE:

As the region is much dependent on EU funding, it is important to learn more about additional opportunities outside the EU programmes, investment, and other sources of funding. These sessions are important for all the actors involved (directly or indirectly) with the RIS3 implementation.

#### ACTIVITIES TO DEVELOP:

- : Define programmes for these short sessions (that can be included in the agenda of bigger events) – see action 4
- : Disseminate it to the different actors – university members, companies, established and potential entrepreneurs

#### **Action 4.**

Create initiatives for the promotion of links between science and business, such as working groups and Science meets Business events.

#### **OBJECTIVE:**

These initiatives are a first step for the promotion of cooperation between science and business as a way to understand how they can work together and increase trust, which is the main issue of the lack of interactions.

#### **ACTIVITIES TO DEVELOP:**

- : Creation of a working group with representatives from the University of Lodz, the industrial chambers/parks, selected companies and the regional authority responsible for the implementation of the RIS3 initiative
- : Promotion of annual events such as Science meets Business where researchers can present the work developed. In these events there could also be parallel sessions on investment, commercialization of products and others (see action 2 and 3)



### 3. Conclusions

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The 5 universities included in this document – Universidade de Trás-os-Montes e Alto Douro, Universidad Politecnica de Valencia, Politecnico di Milano, Newcastle University and University of Lodz – as well as the regions in which they are inserted have very different levels of development, autonomy, and specialisation. The interactions between the universities and the regional authorities are also quite different from region to region.

Being so, these facts have led to different conclusions and suggestions described in the previous sections, however, it is interesting to note that there are also some comparable points, namely:

- The communication of the activities and results of the research and innovation activities of the universities to the general public and between departments could be improved.
- There is a lack of knowledge between companies and universities on how to better interact to actually implement the research and innovation results done at the universities.
- The monitoring results of the RIS3 are not always communicated and are not easily accessible.

It is also worth mentioning that some of the regions and universities are in a process of restructuring their strategies and institutions, for example, the NELEP in the Newcastle region. As the process is currently occurring, it was not possible to integrate these changes in the document due to the timeline of the project.