

SELF-ASSESSMENT EXERCISE- North East Romania

HIGHER EDUCATION FOR SMART SPECIALISATION

Objectives

The HESS self-assessment exercise has two main functions:

-> An opportunity for regions to undertake a self-assessment of how higher education is integrated into the S3 policy mix and how Higher Education Institutions (HEIs) are contributing to S3 implementation. This objective is to initiate a process of self-reflection that will bring about changes to policy approaches.

-> A starting point / baseline for the HESS project. The objective is for the JRC and external experts to understand the regional context, maturity of the R&I system, the role played by higher education in development and innovation, as well as the opportunities, challenges and barriers to the territorial engagement of HEIs and their role in S3 implementation. It will allow the research team, together with the regional authorities, to identify the key area of intervention for the next stages of the project.

Guidelines

The reply to this questionnaire should be coordinated by the regional authorities responsible for smart specialisation; which is usually the contact point held by the S3 Platform. It should be completed by the end of September 2016, to give sufficient time to IPTS and the expert for the forthcoming field work (Autumn 2016).

We highly recommend consulting stakeholders before replying, especially the HEIs themselves. This could be the result of a long standing dialogue or a dedicated workshop.

The exercise has two complementary elements:

b) Open ended questions on the perspectives, concerns and visions of both the regional authority and its stakeholders

a) A rating tool (HESS self-assessment wheel!) which involves the scoring of your region's current situation with regard to the role played by higher education and HEIs in the implementation of S3.

Questionnaire

Background

- In your opinion, what has been the level of engagement of HEIs in the regional development strategies so far?
- Which are the enablers/facilitators of the engagement of the HEI in regional development? Give some examples.

There is a general very positive feeling (shared by all universities present at the table) about how the interaction with the RDA, and hence with the process of regional development, is. Universities trust the RDA and as a proof of that mentioned that they are in general very responsive when the RDA calls for a meeting.

Relevant initiatives include REGINOVA, REGIOTEX as well as the existence of Master Programmes addressing regional development within the EU-studies school.

Now it is important moment for the academia after the elections of new rectors, as the new management teams has to prepare and put forward the university' strategy for long term development. It would be an appropriate moment to give more often to them information on the RIS3 North-East development process and so, encouraging to introduce one objective related to academia role towards RIS3 North-East.

1. Knowledge generation

- To what extent is the knowledge produced by HEIs relevant to addressing regional priorities?
- How would you describe the role of HEI in the Entrepreneurial Discovery Process and Smart Specialisation Strategy definition?

Knowledge production is, more or less directly, relevant to the regional priorities.

Al. I. Cuza University, highlighted how the business/economics research they carry has impacted on public authorities' behaviour (for instance in Health politics and ethics). Furthermore, they are active as innovation experts within EU-funded project (Interreg).

Furthermore, the strategies for funding research have changed. Universities need to have private partners to get funding, hence research has become more relevant for regional development. The Polytechnic University is also a member of clusters (textile), both locally and nationally.

The sources of financing for the research projects, particularly the national ones, are not encouraging a good bottom-up process for collecting project ideas.

Universities participated in the consultation process for the definition of the RIS3 priorities, they are interested to participate in the future in the EDP meetings relevant for their activities too.

2. Knowledge absorption and transfer

- What are the existing tools to support the generation of new companies from HEI (spin-offs)
- Are there examples of universities transferring knowledge to the region from outside the region (knowledge importation)?

The universities share knowledge through various channels related to staff mobility (ERASMUS+) and participation to international programmes (INTERREG, etc.). In particular, structural funds projects (of different kinds) are perceived as an opportunity to share and receive knowledge. The production of graduates who proceed to enter the labour market, is also perceived as a critical vector for knowledge transfer.

On the other hand, the mechanisms for more strictly defined technology transfers (support to Spin-offs, start-up, etc.) are not really available.

For instance, due to national regulation, only permanent members of staff can apply for Spin-off funds, this typically excludes PhD students who are on temporary contracts.

In general, there is limited capacity within the institutions, on IP management. Professors do not feel they have the knowledge (legal, business, etc.) and the support to capitalise on their research either in terms of entrepreneurship or patents.

Also, and especially in the case of the engineering department, when students are in placements, the IP belongs to the firm.

Most of the time the results of the research projects is difficult to pass to the companies and create incentives to test, exploit and apply these results

Moreover, there are serious difficulties with generation of spin-offs due to a legislation incapable to give sufficient separation of the conflict of interest (the owner of a spin-off must come from academia, having a good knowledge and experience in the respective area but leave the academia once the spin-off is established. It is difficult to choose between the academia career and entrepreneurship.

The idea of RDA to prepare a single database with all academia representatives involved in RIS3 is good, but it should include also info related to representatives' professional skills and field of interests.

Another idea was to share in a single data base the list of main collaborators academia –RDA in such manner giving the possibility to each participant to have access to enlarged group of contacts (including cross sectorial ones).

3. Teaching and Learning

- To what extent do the curricula of degree programmes in HEIs match regional priorities?
- Do you think that the region has access to the appropriate quantity and quality of graduates?
- Which specific tools have been promoted to enhance the development of human capital and skills in response to regional development needs? Which further tools would be needed to enhance it?
- Do HEIs promote an entrepreneurial spirit among the academic community and the students? Which further tools would be needed to enhance it?

There is an extremely close and well-functioning cooperation with the IT industry and the programmes are fairly integrated with industry needs. The quality of graduates is good, however, the quantity is insufficient: it is estimated that, against a supply of 800 graduates per year, there is a demand of 3200. Cooperation with industry for placements is common across universities, though the experience –albeit often good- is not as good as in the IT sector.

In general, there is a shortage of Engineering, Medical and IT graduates (amplified by brain-drain), a relative oversupply of economics, law and biology graduates and an even larger oversupply of graduates in the social sciences and humanities. Interesting, whilst in the Textile sectors graduates are in high demand, it is difficult for the university to recruit students.

The training system is perceived as too rigid in terms of legislation. The engineering school has detected a demand for short teaching modules, unlinked to formal programmes, which however cannot be met. It is not feasible to provide this flexible learning under the current framework. Similarly, Life-Long learning is relative underdeveloped due to a lack of appropriate policy framework.

The school of Economics and Social Sciences has, due to the nature of the discipline, been able to develop distance learning programmes.

The direct communication between academia and entrepreneurs is missing. A National Academia for Entrepreneurship could be a solution. The interinstitutional communication needs a framework.

Each university is ready to include a module dedicated to business management (alternative curricula or master degree program) in order to get students more prepared for entrepreneurial initiatives. Faculty of Economy and Business Administration (A I Cuza University) indicated they have a program to prepare psychologically the students for an eventual start-up establishment. The problem is that a good program (covering all the basics) is not available yet in the region. This program should than be rolled out in all universities.

4. Cooperation

- Which have been the specific tools develop to increase the cooperation of HEI with other research and innovation stakeholders?
- How would you describe the connections of the HEI to other stakeholders of the territory (research and technology centres, regional authorities, companies, clusters, etc)?
- Which specific barriers/challenges have been encountered to improve the coordination of the HEI with other stakeholders of the territory?
- How do HEI contribute to the overall vision and marketing of the region?

In terms of international cooperation with other universities, there are several agreements signed for students' exchange (however, it has proven difficult to sign an agreement with the UK).

Interaction with the private sector (as highlighted above) is common through student placements.

In general, in terms of facilitating interaction with private sector, it is perceived that the regulatory framework is not good, because it does not differentiate between the different needs of the different disciplines. For engineering/medical schools, having adequate equipment is critical to establish relationships with the private sector.

Finally, mentality is as important as money and some parts of the private and public sector are stuck in old ways of thinking.

The cooperation is most of the time occasionally based on projects.

There is a lack of administrative cooperation among universities. Inside each university there is difficult to communicate between the faculties.

An example was given by the representatives of the University of Arts, who feel like marginalized in the development process in general (strategies, programs or projects). It would be useful to consider the socio-cultural side of each investment (and include also funds for such analysis in the projects' budget).

This barrier of mentality can be overpassed with more and more meetings between academia representatives (even in informal area) in order to build acknowledgment on each specialization and trust.

5. Organisation of HE systems

- Are existing universities complementary between themselves and to other vocational training or education institutions of the territory?
- How is the role of HEI in the regional development strategy influenced by national rules and policies? What is the degree of autonomy of the HEI to adapt their activities to regional development needs?
- How is the performance of HEIs measured? How these influences on the way they engage in regional development?

There is high complementarity between the different universities.

There is also good cooperation with vocation training in Engineering and Economics (not so clear for other schools). Among other things, the engineering school runs the exams for technical teachers.

Universities perceive a fairly high level of autonomy.

The evaluation of members of staff is done by the universities (following national regulation) whereas the evaluation of institutions is done by the central government (National Accreditation Body).

Typically, the criteria for evaluation revolve around bibliometrics, teaching quality, participation in international networks/projects.

The evaluation criteria do not take into account the alignment with regional development, nor third mission activities. However, indirectly, the evaluation criteria produce results that are indirectly relevant for regional development.

The regional development policy in Romania is built in statistical regions (not administrative units). The financing programs for this policy are national with regional allocation, which concludes that the needs identified and prioritized at regional level are only partially addressed by the financing programs (where criteria are set according to the national prioritized needs). University has a certain degree of autonomy which allows them to get involved in the regional development process.

6. Funding

- What is the level of engagement of HEIs with international research networks (H2020, etc.)
- What is the level of engagement of the university sector in international teaching/learning networks (Erasmus+, knowledge alliances, etc.)
- Are there examples of universities using international / national funding programmes in synergy with regional funds (including the ESIF?) How could this be improved?

Universities are actively pursuing participation to H2020 and international research projects, however H2020 is too competitive and so far only the IT faculty appears to be able to achieve funds.

ERASMUS+ is appreciated, but it seems more concerned with a new "philosophy" of teaching than with the needs of the industries (the agricultural universities, however, felt that ERASMUS+ does meet the needs of the industry).

Synergies are not explicitly pursued, through some projects with Moldova (run by the Economics University) may be seen as making a synergetic use of funds.

Concluding questions

- Overall, which of the three missions of HEI (education, research, outreach) has been better integrated in the S3? Why?
- Which could be the potential specific mechanisms that would be needed to optimize HEI involvement in the implementation of RIS3 and make it sustainable over time?
- Which are the key future challenges to improve the role of HEI in the RIS3 of the region?

Out of the three functions, teaching is the most aligned to regional development. Graduates produced are relevant to S3 priorities. Research comes second and appears most important in the Engineering school, whereas outreach is not really relevant.

In terms of challenges and mechanisms to overcome them, there is a clear need for more flexibility in the relation between industry/university in order to adjust to the evolving economic challenges. Cultural differences between the two sectors, result in insufficient understanding of each other's needs and of the opportunities that interaction can offer. For instance, the economics department could support industry with market intelligence, allowing them to understand future trends. Yet, the industry is not aware of such opportunity.

As mentioned above, the IT sector is a positive exception where the interaction seems to work perfectly.

The governance system needs to change and provide opportunities for universities to act with a common voice.

Finally, there is a need for a better communication strategy in which positive examples of university-industry collaborations are promoted.

HESS Self-assessment wheel (to be completed)

Please rate the current situation of the region according to the six main elements of the questionnaire. This is done by giving a score of 1-5 in the accompanying excel sheet, which also includes a summary of what each element refers to. The wheel is intended to provide a quick overview of how the region sees itself and which areas need to be improved.