

# O E U

Observatory of the  
European University

# STRATEGIC MATRIX

*Second University Panel Session*

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**Prime**

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Strategic Management for University Research

PRIME stands for Policies for Research and Innovation in the Move towards the European Research Area. This Network of Excellence brings together over 200 researchers and 150 PhD students, from four main disciplines, over 40 institutions and 16 countries. The program of activities balances three research actions dedicated to producing world-class research and three structural actions aimed at achieving lasting effects in terms of structuring the field at the European level, those structural actions focusing on database and indicators issues, training, and interactions with the full range of stakeholders.

# OEU - Strategic Matrix

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## I. THE OBSERVATORY OF THE EUROPEAN UNIVERSITY

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The «Observatory of the European University» (OEU) is a project developed within the European “Network of Excellence” PRIME<sup>1</sup> involving the cooperation of 15 European universities<sup>2</sup>.

The overall objective is to provide universities with tools adapted to the governance of their research activities. The OEU research team has developed a framework for the characterization of research activities undertaken by universities. The resulting framework is presented in the following section of this document as a basis for joint progress with university management.

Practical considerations have been largely taken into account in building this analytical framework and in selecting the proposed indicators. The research team is fully conscious that the assessment processes currently in use are creating a huge workload for European universities. Therefore any new measurement system is hardly welcome. Even though it should be stressed that this project doesn't plan to build another assessment exercise – participating universities themselves will use the proposed strategic tools to characterize their research activities – the OEU research team aimed to limit the cost of data collection.

We have favoured the use of existing data and the exploitation of existing university documents (Strategic Research Plan, Contractual Report) and existing procedures to generate data. We have tried to focus on a limited set of key strategic issues and to select a few indicators for each of these issues.

### I.1. THE PREPARATORY WORK AND THE RESULTING « OEU STRATEGIC MATRIX »

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The analytical framework presented below is the result of a first round of interactions between the participating universities and the OEU research team which took place during a first University Panel Session held in Pisa (16th - 17th July 2004). The output of this meeting was embodied in a list of issues which were considered by the university representatives as strategic for the management of research activities.

Subsequent work by the OEU research team has produced a series of working papers. They are compiled in the « OEU (2005) intermediary report » and can be used as background documents. The next step is composed of the following two-dimensional matrix whose primary use is to facilitate the analysis of the university research management. In our view, this matrix can help to characterize the status of university research management, to identify the best performing universities and to compare the setting within which universities operate.

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<sup>1</sup> [www.prime-noe.org](http://www.prime-noe.org)

<sup>2</sup> Ecole nationale des Ponts et Chaussées, Université de Marne-la-Vallée, Szeged University, University of Bologna , Université de Bourgogne , Universidad de Granada, Università Ca' Foscari Venezia, Dortmund Universität, Ludwig-Maximilians-Universität München, Universidade de Aveiro, University Paris-Sud, Ecole polytechnique fédérale de Lausanne, Université de Lausanne, Autonomous University of Madrid, Maastricht University

## OEU - Strategic Matrix

The first dimension of the matrix deals with thematic aspects of university research management. We have considered five themes.

- **Funding:** which includes all budget elements both revenues and expenses
- **Human Resources:** which includes researchers, research staff and PhDs
- **Academic Outcomes:** which includes articles and non articles, academic publications, and the knowledge embodied in PhDs being trained through research
- **Third Mission<sup>3</sup>:** which includes the relations linked between university and its non-academic partners: industry, public authorities and public at large
- **Governance:** which includes the process by which the university converts its inputs (funding and human resources) into research outputs (Academic Outcomes and third mission)

The second dimension of the matrix deals with transversal issues which cross these thematic categories. We have considered five transversal issues:

- **Autonomy:** The university margin of manoeuvre, formally defined as the limits, exogenously established, to which a university must conform.
- **Strategic Capabilities:** Real university ability to implement its strategic choices.
- **Attractiveness:** University capacity to attract resources (money, people, equipment, collaboration, etc.) within a context of scarcity.
- **Differentiation Profile:** Main features of an university which distinguish this institution from the other strategic actors, mainly universities but also other public research organizations.
- **Territorial Embedding:** Geographical distribution of university involvements, contacts, collaborations...

For each cell of the "OEU strategic matrix", which is presented below, we have selected a few Key Questions (labeled KQ i,j<sup>4</sup>). For each of these Key Questions we have proposed a few relevant indicators and possible schemes for collecting the data required for these indicators.

### THE OEU STRATEGIC MATRIX

	Funding	Human Resources	Academic Outcomes	Third Mission	Governance
<b>Autonomy</b>	KQ 1.1	KQ 1.2	KQ 1.3	KQ 1.4	KQ 1.5
<b>Strategic Capabilities</b>	KQ 2.1	KQ 2.2	KQ 2.3	KQ 2.4	KQ 2.5
<b>Attractiveness</b>	KQ 3.1	KQ 3.2	KQ 3.3	KQ 3.4	KQ 3.5
<b>Differentiation Profile</b>	KQ 4.1	KQ 4.2	KQ 4.3	KQ 4.4	KQ 4.5
<b>Territorial Embedding</b>	KQ 5.1	KQ 5.2	KQ 5.3	KQ 5.4	KQ 5.5

The content of this matrix is presented in more details below. The next section considers successively the way each of the Thematic Dimensions are affected by the Transversal Issues. The first subsection, dedicated to the "Funding" dimension, considers in what way the financial management of university

<sup>3</sup> The university « third mission » is a reference to the two other missions universities are in charge of : teaching and research

<sup>4</sup> Which stands for « Key Questions for the Transversal Issue i and the Thematic Dimension j »

## OEU - Strategic Matrix

research is affected firstly by the “Autonomy” issue affects, secondly by the issue of “Strategic Capabilities”, and then by the next three issues (Attractiveness, Differentiation Profile, Territorial Embedding). The other thematic dimensions are treated the same way. The second subsection, dedicated to the “Human Resources” dimension, considers in what way the management of “Human Resources” in university research is affected firstly by the “autonomy” issue, then by the issues of “Strategic Capabilities”, “Attractiveness”, etc.

The same procedure is carried out for the three remaining thematic dimensions: Academic Outcomes, Third Mission, Governance.

### I.2. METHODOLOGICAL CONSIDERATIONS

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Several cross-sectional questions need still to be addressed by the OEU research team in close collaboration with the university representatives’ partners. If no overall answer can be reached, we should adopt a case-by-case approach.

**A - The first question** pertains to the definition of the perimeter of the university under study. What are the boundaries of the institution? How should the production of research teams, centres, and laboratories held in common with other institutions be attributed? Whatever approach is used, it is the university's responsibility to take an accounting of its laboratories' publications in the SCI and in other complementary databases if needed.

Another example of difficulties encountered in defining boundaries may be found in research groups in hospitals. They are linked to the University, directly if they are a teaching hospitals or indirectly if they are universities associated with a hospital<sup>5</sup>.

**B - The second question** raises the matter of the “level of institutional detail” for the analysis. This relates to the university in its entirety, its departments, its laboratories, research teams and even individuals who are institutionally connected to the university. It will often prove useful to combine these different levels of observation or to articulate the analysis by levels. Choices will in part be dictated by the availability of data and the difficulty of data collection.

**C - The third question** concerns the disciplinary quality of the analysis. Is it the university's overall research effort that is being characterized, all disciplines taken together? Or do we want to carry out the analysis along major discipline lines, or sub-specialties? If so then it will be important to spell out the categories to be used. This question of analytic categories is of primary importance since the way it is answered affects heavily the results obtained in terms of visibility. Gathering all disciplines together would not make sense because their inputs and outputs may be quite different. At the same time if the breakdown is too specific it will be very difficult, and costly, to obtain the data. To define the categories through the current functional structure of our Universities (main departments and chairs) could be a starting point. This approach would facilitate the gathering of the data.

**D - The fourth question** pertains to the period of the analysis; over what length of time should the analysis be conducted? Two, five, or ten years? Here again the choice is conditioned by practical considerations and limited by the availability of data. Choosing too short a time period could affect adversely the reliability of the results concerning citations.

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<sup>5</sup> Hospitals with an agreement with the university. For example, their doctors provide teaching and supervising of student research

### **I.3. THE WORK AHEAD: AN ON-GOING INTERACTIVE PROCESS BETWEEN UNIVERSITY REPRESENTATIVES AND THE OEU RESEARCH TEAM**

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The OEU strategic matrix results from an interactive process between university representatives and the OEU research team. This strategic matrix will also constitute the basis for further exchanges. Each university participating in the project will interact with its OEU partner, using the matrix to assess its strategic strengths and weaknesses.

This phase of collaboration, programmed before the April 2005 Madrid University Panel Session, will also be used by the universities to:

- validate the choice of strategic issues which have been highlighted in the matrix and,
- select the issues on which they will concentrate to gather their data for the pilot phase of this project.

Then the April 2005 Madrid University Panel Session will focus on the issues which have been given top priority by universities and will set the common rules for the collection of data.

**GENERAL MATRIX ON UNIVERSITY RESEARCH MANAGEMENT**

	FUNDING	HUMAN RESOURCES	ACADEMIC OUTCOMES	« THIRD MISSION »	GOVERNANCE
<b>AUTONOMY</b>	<p>KQ1.1</p> <ul style="list-style-type: none"> <li>• What is the degree of freedom the government enjoys in the use of government funding?</li> <li>• How significant is the portion of non-governmental funding that goes to research?</li> </ul> <p>KQ2.1</p> <ul style="list-style-type: none"> <li>• What is the amount of resources devoted to research activity?</li> <li>• How diverse is the funding basis for research?</li> </ul>	<p>KQ1.2</p> <ul style="list-style-type: none"> <li>• What freedom is there to:                             <ul style="list-style-type: none"> <li>• create new positions?</li> <li>• recruit and allocate staff?</li> <li>• specify staff duties?</li> </ul> </li> </ul> <p>KQ2.2</p> <ul style="list-style-type: none"> <li>• What is the actual use of incentives and performance-linked rewards (Salary, bonuses, promotion)?</li> <li>• What mechanism is available for steering research careers?</li> <li>• What are the mechanisms to enable junior researcher to develop their own projects</li> </ul>	<p>KQ1.3</p> <ul style="list-style-type: none"> <li>• Does the research portfolio reflect the university's strategic choices of scientific fields or does it result mainly from national or European Framework Programmes for RTD priorities?</li> <li>• What are the university degrees of freedom to evaluate the quality of Academic Outcomes?</li> </ul> <p>KQ2.3</p> <ul style="list-style-type: none"> <li>• What leverage does the university have to set scientific agendas in the various fields in which it is active?</li> </ul>	<p>KQ1.4</p> <ul style="list-style-type: none"> <li>• How are the university structures in charge of the management of relations with non academic partners (transfer office, etc.)?</li> <li>• What investments has the university realized in the process of its third mission (science parks, incubators, museums, etc.)?</li> </ul> <p>KQ2.4</p> <ul style="list-style-type: none"> <li>• How is the third mission presented in the SRP?</li> <li>• What us does the research staff make of the transfer office?</li> </ul>	<p>KQ1.5</p> <ul style="list-style-type: none"> <li>• How much autonomy does the university have in elaborating its SRP?</li> <li>• What is the autonomy of the university in defining the content of the SRP, regarding external frameworks, procedures, priorities?</li> <li>• How much autonomy does each level have in the definition of a SRP?</li> </ul> <p>KQ2.5</p> <ul style="list-style-type: none"> <li>• To what extent does the university have the ability to make strategic decisions and resource allocations according to the SRP, and to follow up and readjust?</li> <li>• To what extent does the university have to implement innovative research areas (seed money) according to the SRP?</li> <li>• To what extent can each level impact the SRP?</li> </ul>
<b>STRATEGIC CAPABILITIES</b>					
<b>ATTRACTIVENESS</b>	<p>KQ3.1</p> <ul style="list-style-type: none"> <li>• What is the fund-raising capacity of the university?</li> <li>• Which kind of external sources does the university attract?</li> </ul>	<p>KQ3.2</p> <ul style="list-style-type: none"> <li>• How Attractive is the institution (unit) for future and for qualified researchers?</li> <li>• How much attractive is the university for research students at PhD level (does it make sense to raise the same question at the level of student enrolment)?</li> </ul>	<p>KQ3.3</p> <ul style="list-style-type: none"> <li>• What scientific partnerships appears appear in the university's co-publications networks?</li> <li>• What are the university's scientific partnerships as characterized by visiting fellows, non-local PhD, or academic events it organizes?</li> <li>• What scientific partnerships patterns appear in the university's portfolio of participation in and coordination of international research programs?</li> </ul>	<p>KQ3.4</p> <ul style="list-style-type: none"> <li>• What laboratories of non-academic actors are located on the university premises?</li> <li>• What are the research collaborations with firms and non-academic public bodies outside the university premises?</li> </ul>	<p>KQ3.5</p>
<b>DIFFERENTIATION PROFILE</b>	<p>KQ4.1</p> <ul style="list-style-type: none"> <li>• What is the structure of the budget by scientific fields (large disciplinary groups) and by type of research (basic, applied, R&amp;D)?</li> <li>• What is the structure of the university's own resources that are allocated to and derived from research by scientific fields (see above) and type of research (see above)?</li> </ul> <p>KQ5.1</p> <ul style="list-style-type: none"> <li>• What is the geographical origin of research funding?</li> <li>• What is the geographical origin of funding for young researchers?</li> </ul>	<p>KQ4.2</p> <ul style="list-style-type: none"> <li>• Is the institution clearly specialized in the training of PhDs?</li> <li>• What profile does the university choose for recruitment</li> </ul> <p>KQ5.2</p> <ul style="list-style-type: none"> <li>• Are there mobility-enhancing activities?</li> <li>• Is there regional support for training researchers?</li> <li>• Is there regional support for recruiting qualified researchers?</li> </ul>	<p>KQ4.3</p> <ul style="list-style-type: none"> <li>• In which field does the university publish the major part of its scientific articles?</li> <li>• In which fields does the university publish the main parts of its "non articles": Academic Outcomes (books, chapters, e-journals)?</li> <li>• What are the main instances of academic recognition that have been awarded to university researchers?</li> </ul> <p>KQ5.3</p> <ul style="list-style-type: none"> <li>• What are the main geographical levels of scientific cooperation for the university?</li> <li>• Where do the university's PhDs students come from and where do they go to after completion of their PhD?</li> </ul>	<p>KQ4.4</p> <ul style="list-style-type: none"> <li>• What are the main focal points of non academic collaboration for the university, in terms of industrial, cultural, and social relations?</li> <li>• What are the original/unique facilities and/or services located on the university premises and open to external actors?</li> </ul> <p>KQ5.4</p> <ul style="list-style-type: none"> <li>• What are the main geographical levels of the university's industrial relation?</li> <li>• What are the main geographical levels of involvement in policy and public debate for the university for shaping / accompanying regional / national / international policies?</li> <li>• What specialised structures of the universities are open to the public (law shops (legal advice), museums, libraries, etc.)?</li> </ul>	<p>KQ4.5</p> <ul style="list-style-type: none"> <li>• Does the content of its SRP distinguish the university from other institutions?</li> </ul> <p>KQ5.5</p> <ul style="list-style-type: none"> <li>• What are the degrees of participation of the different actors at different territorial levels of negotiation and influence?</li> <li>• What are the needs to which (or objectives to which) the content is related to?</li> </ul>
<b>TERRITORIAL EMBEDDING</b>					

## III. KEY QUESTIONS – INDICATORS – SOURCES OF DATA

### III.1. THEMATIC DIMENSION 1: FUNDING

#### Characterization

- Total budget of the university
- Structure of the total budget (research, infrastructure, personnel)
- Sources of the total budget (government versus non-governmental funds)
- Budget management rules
- Funding rules: in terms of governmental funding and within the institutions
- Sources of the research budget

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#### III.1.a. Transversal issue 1: Autonomy

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What is the degree of freedom the university enjoys in the use of government funding?</li> </ul>	<ul style="list-style-type: none"> <li>• Amount and types of budget constraints (personnel costs, equipment, ceiling on student fees, other legal constraints)/total budget</li> <li>• Proportion of resources managed by the university at the central level and at lower levels (department, school, research unit)</li> </ul>	University budget report, by institutional level and by functional level.
<ul style="list-style-type: none"> <li>• How significant is the portion of non-governmental funding that goes to research?</li> </ul>	<ul style="list-style-type: none"> <li>• Relative weight of lump-sum as a share of total funding (for both governmental and non-governmental funding)</li> <li>• Thresholds imposed to fund-raising</li> </ul>	University budget report, by institutional level and by functional level. Contractual report

### II.1.b. Transversal issue 2: Strategic capabilities

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What is the amount of resources devoted to research activity?</li> </ul>	<ul style="list-style-type: none"> <li>• Relative weight of permanent research staff in the personnel budget and in the overall budget</li> <li>• Structure of non-core funding</li> </ul>	University budget report, by institutional level and by functional level.
<ul style="list-style-type: none"> <li>• How diverse is the funding basis for research?</li> </ul>	<ul style="list-style-type: none"> <li>• Relative weight of non-core funding in the overall budget and in the research budget</li> </ul>	University budget report, by institutional level and by functional level.

### II.1.c. Transversal issue 3: Attractiveness

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What is the fund-raising capacity of the university?</li> </ul>	<ul style="list-style-type: none"> <li>• Relative weight of own revenues (i.e. private donations) in the overall budget and in the research budget</li> </ul>	University budget report, by institutional level and by functional level.
<ul style="list-style-type: none"> <li>• Which kind of external sources does the university attract?</li> </ul>	<ul style="list-style-type: none"> <li>• Research and non-research contracts by source of funding</li> </ul>	University budget report, by institutional level and by functional level

### II.1.d. Transversal issue 4: Differentiation profile

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What is the structure of the budget, by scientific field (large disciplinary groups) and by type of research (basic, applied, R&amp;D)?</li> </ul>	<ul style="list-style-type: none"> <li>• Structure of budget, by scientific field (large disciplinary groups) and by type of research (basic, applied, R&amp;D)</li> </ul>	University budget report, by institutional level and by functional level.
<ul style="list-style-type: none"> <li>• What is the structure of the university's own resources that are allocated to and derived from research, by scientific field (see above) and by type of research (see above)?</li> </ul>	<ul style="list-style-type: none"> <li>• Structure of own resources allocated to and derived from research, by scientific field (large disciplinary groups) and by type of research (basic, applied, R&amp;D)</li> </ul>	University budget report, by institutional level and by functional level.

**II.1.e. Transversal issue 5: Territorial embedding**

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What is the geographical origin of research funding?</li> </ul>	<ul style="list-style-type: none"> <li>• Structure of research and non-research funding, by geographical source, and its desegregation by objectives</li> </ul>	
<ul style="list-style-type: none"> <li>• What is the geographical origin of funding for young researchers?</li> </ul>	<ul style="list-style-type: none"> <li>• PhD contracts, by source of funding</li> </ul>	

## II.2. THEMATIC DIMENSION 2: HUMAN RESOURCES

### Characterisation

- Number of fulltime university workers: full professors, researchers, Engineers, Administrative staff
- Distribution by type of employment, by age, nationality, gender, category of staff (unit level, institution level).
- Distribution of personnel by scientific field
- Turnover rate
- Average teaching load and distribution by field/unit
- Number of PhD students, by year, by field, nationality and sex
- Number of PhD degrees, by year, by field, nationality and sex
- Number of PhD students with 3 or more months mobility (by year)
- Number of researchers with 3 or more months mobility (by year)

### II.2.a. Transversal issue 1: Autonomy

Key questions	Indicators	Sources of Data and Qualitative Information
<p>What freedom is there to:</p> <ul style="list-style-type: none"> <li>• create new positions?</li> <li>• recruit and to allocate staff?</li> <li>• specify staff duties?</li> </ul>	<ul style="list-style-type: none"> <li>• Share of staff appointed through autonomous formal procedure (at the University level + by type, by field and by units) (consider procedures dealing with positions and academics)</li> <li>• Annual transfer of positions (by unit, by fields)</li> <li>• Distribution of teaching time (across the unit, the institution)</li> </ul>	<p>Headcount (or Full Time Equivalent) by status</p> <p>Over 5 years</p> <p>Variance of annual teaching time (by status)</p>
<h3>II.2.b. Transversal issue 2: Strategic capabilities</h3> <p>Key questions</p> <ul style="list-style-type: none"> <li>• What is the actual use of incentives and performance-linked rewards (Salary, bonuses, promotion)?</li> </ul>	<p>Indicators</p> <ul style="list-style-type: none"> <li>• Range of salaries (by type of staff)</li> <li>• Distribution of performance related bonuses</li> </ul>	<p>Sources of Data and Qualitative Information</p> <p>Payroll (Over 5 years)</p>

<ul style="list-style-type: none"> <li>• What mechanism is available for steering research careers? Possibility of renegotiating the content of work throughout the professional life.</li> <li>• What are the mechanisms to enable junior researchers to develop their own projects</li> </ul>	<ul style="list-style-type: none"> <li>• Existence of mechanisms</li> <li>• Share of fast track researchers</li> <li>• Age of project leaders, heads of units</li> </ul>	Management rules.  Payroll (Over 5 years)
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### II.2.c. Transversal issue 3: Attractiveness

Key questions		Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• How Attractive is the institution (unit) for future and for qualified researchers?</li> </ul>	<ul style="list-style-type: none"> <li>• Average number of candidates per position open (by field, compared to national average)</li> <li>• Share of outsiders in researcher recruitment (applicants, selected)</li> <li>• Visiting researchers (number, origin)</li> </ul>	Personnel office records Over 5 years Financial sources Decisions of the University Scientific Committee	
<ul style="list-style-type: none"> <li>• How attractive is the university for research students at PhD level (does it make sense to raise the same question at the level of student enrolment)?</li> </ul>	<ul style="list-style-type: none"> <li>• Turnover (by type of staff and unit or field)</li> <li>• Share of PhD students in total enrolments</li> <li>• Origin of PhD students (local, national &amp; international)</li> <li>• Number and origin of fellowships</li> </ul>	Enrolments database (by field) Financial sources (by field) Graduate surveys (by field)	

### II.2.d. Transversal issue 4: Differentiation profile

Key questions		Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• Is the institution clearly specialized in the training of PhDs? The efficiency assessment of this specialization could take into account the success rate, duration for PhD completion and employment rate in the scientific labour market.</li> </ul>	<ul style="list-style-type: none"> <li>• Number of PhDs per researcher.</li> <li>• Average time to PhD degree (by field)</li> <li>• Share of PhD employed in research three years after graduation (in the university, in other research institutions, in industry)</li> </ul>	Enrolments database (by field) Financial sources (by field) Graduate surveys (by field)	
<ul style="list-style-type: none"> <li>• What profile does the university choose for recruitment? Criteria for recruitment could stress more specifically competencies for research, training, contract research.</li> </ul>	<ul style="list-style-type: none"> <li>• Position profile posted for the last five years (by disciplines, by training level...)</li> </ul>		

**II.2.e. Transversal issue 5: Territorial embedding**

<b>Key questions</b>	<b>Indicators</b>	<b>Sources of Data and Qualitative Information</b>
<ul style="list-style-type: none"> <li>• Are there mobility-enhancing activities?</li> </ul>	<ul style="list-style-type: none"> <li>• Resources devoted to (inward and outward) mobility</li> </ul>	Financial sources
<ul style="list-style-type: none"> <li>• Is there regional support for training researchers?</li> </ul>	<ul style="list-style-type: none"> <li>• Funding of PhD fellowships, post-doc fellowships, support staff by regional authorities or by local industry, by unit /field</li> </ul>	Financial sources
<ul style="list-style-type: none"> <li>• Is there regional support for recruiting qualified researchers?</li> </ul>	<ul style="list-style-type: none"> <li>• Any indicator on regional funding for mobility and attraction of external researchers (visitors and full time researchers) and of other types of position (like people employed through the university office for research dissemination or enterprise nursery)</li> </ul>	Financial sources

### II.3. THEMATIC DIMENSION 3: ACADEMIC OUTCOMES

#### Characterisation

The scientific profile of institutions (departments, laboratories, etc.) and/or disciplines can be characterized with a set of core indicators of production, productivity, and visibility:

- articles
- books
- conferences
- electronic working papers
- citations

**Note :** Attention should be paid to the differences between Social Sciences & Humanities and Natural Sciences (availability and quality of data)

#### II.3.a. Transversal issue 1: Autonomy

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• Does the research portfolio reflect the university's strategic choices of scientific fields or does it result mainly from national or European Framework Programmes for RTD priorities?</li> <li>Or is the research portfolio the extension of previous R&amp;D activities?</li> <li>• What are the university degrees of freedom to evaluate the quality of Academic Outcomes ?</li> </ul>	<ul style="list-style-type: none"> <li>• How the specialization index has evolved compared to the priorities expressed by the university.</li> <li>• Relative weight of internal assessment exercise for the Academic Outcomes (vs external assessment)</li> </ul>	<ul style="list-style-type: none"> <li>Internal documents on research strategy</li> <li>Look for existing external directives (from the local authorities, from national bodies, from ministries...)</li> <li>Look for references being made to national/international trends or pressures</li> <li>Contractual reports of Faculties/Departments/Units</li> <li>Contractual reports of Faculties/ Departments /Units</li> </ul>

### II.3.b. Transversal issue 2: Strategic capabilities

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What leverage does the university have to set scientific agendas in the various fields in which it is active?</li> </ul> <p>This power of influence covers various types of scientific gate keeping: memberships in international editorial boards, conference committees...</p>	<ul style="list-style-type: none"> <li>• Number of participations in international editorial boards and conference committees</li> </ul>	Contractual Reports

### II.3.c. Transversal issue 3: Attractiveness

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What scientific partnership patterns appear in the university's co-publication networks?</li> <li>• What are the university's scientific partnerships as characterized by visiting fellows, non-local PhDs, or the academic events it organizes?</li> </ul>	<ul style="list-style-type: none"> <li>• Percentage of international co-authored articles according to geographical area</li> <li>• Number and duration of visiting fellows' positions.</li> <li>• Origins of visiting researchers (for the last 5 years)</li> <li>• Number and origin of PhDs (for the last 5 years)</li> <li>• Number of international conferences hosted (whose proceedings have been published as a book or as a special issue in an review) (for the last 5 years)</li> </ul>	<p>Science Citation Index + local expertise for article recognition</p> <p>Local Data Base and internal reports</p>
<ul style="list-style-type: none"> <li>• What scientific partnership patterns appear in the university's portfolio of participation in and coordination of international research programs? (i.e. European Union supported « actions »)</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in European Union (or non-European Union) backed actions, Framework Program projects (Network of Excellence, Integrated Projects...)</li> <li>• Coordination of European-Union- (or non-European-Union-) backed actions, Framework Program projects (Network of Excellence, Integrated Projects...)</li> </ul>	<p>Contractual report + Cordis (European Union Data Base) + local expertise for articles and project recognition</p>

### II.3.d. Transversal issue 4: Differentiation profile

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>In which fields does the university publish the major part of its scientific articles?</li> </ul>	<p>Numbers and ratios of articles by fields, as indicators of production, productivity and visibility :</p> <ul style="list-style-type: none"> <li>share of publication in a discipline compared to the total publication of the university.</li> <li>share of citation publication in a discipline compared to the total publication of the university.</li> <li>share of specialisation publication in a discipline compared to the total publication of the university.</li> <li>Activity in dynamic field (eg Sharp ratio index)</li> </ul>	<p>Science Citation Index + local expertise for article recognition</p>
<ul style="list-style-type: none"> <li>In which fields does the university publish the major part of its "non articles" Academic Outcomes (books, chapters, e-journals)?</li> </ul>	<ul style="list-style-type: none"> <li>Indicators of Production: numbers of books, chapters, e-journals</li> <li>Indicators of visibility for books, chapters, e-journals</li> <li>Prizes awarded (in the last five, 10, 20 years)</li> </ul>	<p>Non Science Citation Index Data Base + local expertise for Academic Outcomes recognition</p> <p>Mapping techniques on relevant specialized Data Bases</p>
<ul style="list-style-type: none"> <li>What are the main instances of academic recognition that have been awarded to the university's researchers have earned?</li> </ul>	<p>Prizes awarded (in the last five, 10, 20 years)</p>	<p>Local Data Base and internal reports</p>

### II.3.e. Transversal issue 5: Territorial embedding

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>What are the main geographical levels of scientific cooperation for the university?</li> </ul>	<ul style="list-style-type: none"> <li>Importance (%) of regional, national, international collaboration linkages in total scientific collaboration.</li> </ul>	<p>Science Citation Index + local expertise for article recognition</p>
<ul style="list-style-type: none"> <li>Where do the university's PhDs students come from and where do they go after completion of their PhD?</li> </ul>	<ul style="list-style-type: none"> <li>Number and origin of PhDs (for the last 5 years). (taking into account the PhDs awarded only)</li> </ul>	<p>Local Data Base</p>

## II.4. THEMATIC DIMENSION 4: “THIRD MISSION”

### Characterisation

The university third mission profile should characterize :

- Number of PhDs/Engineers employed by the industry.
- Number of patents and licensees.
- Number of incubators, nurseries, spin-offs and university equity portfolio in spin-offs.
- Number of Consultancy for private sector actors.
- Number of Consultancy for public bodies and policy making activities.
- Organisation of cultural and social activities and promotion of cultural and social events.
- Promotion of science and its research activities.

(These dimensions can be integrated in a radar-type approach. Each axis is built with a limited number of indicators that are aggregated in an index and deliver a composite mark. A more detailed presentation is developed in the annex section.)

### II.4.a. Transversal issue 1: Autonomy

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What are the university structures in charge of the management of relations with non-academic partners (transfer office, etc.)?</li> </ul> <p>A narrative could present: history, staffing, official responsibilities, activities and reporting mechanisms</p>	<ul style="list-style-type: none"> <li>• Number of permanent staff in transfer offices</li> <li>• Budget of transfer offices</li> </ul>	Contractual plan Strategic Research Plan Transfer office reports
<ul style="list-style-type: none"> <li>• What investments has the university realized in the process of its third mission (science parks, incubators, museums, etc.)?</li> </ul> <p>A narrative could present: history, relative importance in term of staff, investment, running costs...</p>	<ul style="list-style-type: none"> <li>• Number of investments</li> <li>• Volume of investments</li> <li>• Volume of running costs</li> </ul>	Contractual plan Strategic Research Plan Transfer office reports

### II.4.b. Transversal issue 2: Strategic capabilities

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>How is the third mission presented in the Strategic Research Plan?</li> </ul>	<ul style="list-style-type: none"> <li>Percentage of the total plan devoted to the third mission.</li> <li>Is the third mission presented in the core of the report or as an annex? (What is the type of writing -- very general, specific with projects, objectives, targets?)</li> <li>If relevant: procedures for monitoring and indicators for evaluation of its third mission.</li> </ul>	
<ul style="list-style-type: none"> <li>What use does the research staff make of the transfer office?</li> </ul>	<ul style="list-style-type: none"> <li>Number of interactions between transfer office and academic staff</li> <li>Number of researchers using transfer office services. Corresponding volume of consultancy work.</li> <li>Breakdown by type of interaction (advice seeking, licensing, contracting, etc.) and disciplines of academics.</li> </ul>	

### II.4.c. Transversal issue 3: Attractiveness

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>What laboratories of non-academic actors are located on university premises?</li> </ul> <p>A narrative could present the history of these localizations, their dynamics, the collaborations with university laboratories, the recruitment of students and PhDs from the university.</p>	<ul style="list-style-type: none"> <li>Number of companies whose R&amp;D laboratories and mission-oriented laboratories are located on university premises.</li> <li>Workforce, number and amount of research contracts, flow of students and PhDs from the university.</li> </ul>	<ul style="list-style-type: none"> <li>Contractual plan</li> <li>Department/faculty reports</li> <li>Transfer office reports</li> </ul>

<ul style="list-style-type: none"> <li>• What are the research collaborations with firms and non-academic public bodies outside the university premises? A narrative could present the modalities of these collaborations (EC contracts, institutional agreements, joint labs, etc.), the visibility of the outputs (co-publications, co-patenting, licensing, shared investment in spin-offs, etc.), and the degree of concentration within the university</li> </ul>	<ul style="list-style-type: none"> <li>• Number of collaborations with large firms, amounts of contracts, number of co-publications, number of patents resulting from collaborative projects, licenses, number (and amount) of co-investment in spin-off companies, etc.</li> </ul>	<p>Science Citation Index database Transfer office reports</p>
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### II.4.d. Transversal issue 4: Differentiation profile

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What are the main focal points of non academic collaboration for the university, in terms of industrial, cultural, and social relations?</li> </ul>	<p>Short list of the main third-mission focal points:</p> <ul style="list-style-type: none"> <li>• Number of research staff concerned by these main third mission focus</li> <li>• Types of collaboration : joint teams, multi-annual conventions, non-financial inputs</li> <li>• Quantification of outputs: PhD, professional masters degrees, publications, patents, spin-offs, etc.</li> </ul>	
<ul style="list-style-type: none"> <li>• What are the original/unique facilities and/or services located on the university premises and open to external actors? A narrative could present the history, the modality within the university (mono or trans-department, specialised team, project...), the level of deployment (regional, national, European), the existing public competition at this level (other universities...) and relative position, the investment by university, degree of coverage of costs by contracts (direct or indirect).</li> </ul>	<ul style="list-style-type: none"> <li>• List of original/unique facilities and/or services located on the university premises.</li> <li>• Investment and budget (university funds and external funding)</li> <li>• Workforce</li> <li>• Numbers of external users of these facilities or services</li> </ul>	

**II.4.e. Transversal issue 5: Territorial embedding**

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What are the main geographical levels of the university's industrial cooperation?</li> </ul>	<ul style="list-style-type: none"> <li>• Share of regional, national, international actors in contract research (large and SME), in licences.</li> <li>• Number and volume of contracts with private economic actors (large and SME)</li> <li>• Number and volume of contracts with local and public bodies</li> <li>• Number and volume of licencing agreements</li> </ul> <p>The regional cooperation should characterize the university policy towards spin-offs and its support of new activities:</p> <ul style="list-style-type: none"> <li>• Number of incubator projects</li> <li>• Number of new firms</li> <li>• Number of staff moved from university to new firms</li> <li>• Number of PhDs and Post Docs involved in new firms</li> </ul>	
<ul style="list-style-type: none"> <li>• What are the main geographical levels of involvement in policy and public debate for the university for shaping/accompanying regional/national/international policies ?</li> </ul> <p>This point covers university institutional involvement and individual staff involvement</p>	<ul style="list-style-type: none"> <li>• Number of consultancies for regional / national / international policies from the university</li> <li>• Number of reports and publications on regional/national/international policies</li> <li>• Number of staff members participating in norms/standards/regulation committees</li> </ul>	

<ul style="list-style-type: none"> <li>• What specialized structures of the university are open to the public (law shops (legal advice), museums, libraries, etc.)?</li> </ul> <p>This social university activity, which can be seen mainly as a sign of its local embedding, covers :</p> <ul style="list-style-type: none"> <li>• specific cultural investments, like museums, festivals, involvement into expositions, role in 'local' sport (university teams, etc.)</li> <li>• specific investments to promote higher education and science; like science days, science cafes...</li> <li>• the production of services for local community, like law shops...</li> </ul>	<ul style="list-style-type: none"> <li>• Typology and number of cultural structures</li> <li>• Volume of cultural investments</li> <li>• Typology and number of social structures</li> <li>• Volume of social investments</li> <li>• Typology and number of service for local community</li> </ul>
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## II.5. THEMATIC DIMENSION 5: GOVERNANCE

### Characterization

#### Description of the governance of the university

##### *Above the university*

- public authorities in charge of steering research within universities and at what levels
- national research structures and description of their role with regard to university research: funding (projects/structures/staff), steering, evaluating
- existing devices to:
  - evaluate the Strategic Research Plan (frequency, description of the formal procedures)
  - allocate public research funding (frequency, description of the formal procedures)
  - ask the university to produce Strategic Research Plan (frequency, description of the formal procedures)

##### *University structure*

- faculty
  - number of professors by families of disciplines, by disciplines, by projects, by study programs?
  - according to groups of disciplines?, of disciplines? Of sub-disciplines? of projects? Of study programmes?
  - Within them : existence of departments? Are they responsible for Teaching and Research, only for Teaching, Existence of labs: within the departments or not ?
- About those labs
  - Number and size by disciplines
  - Number of teams within each
  - Formal decisional capacity (on paper)
- University research structures (not within faculties)
  - Number
  - Nature (Federation of research labs for instance, research labs not included within faculties )
- Deliberative / decisional bodies dealing with research issues
  - At the university level : Size and composition, Formal attributions

- At the faculty level : Size and composition, Formal attributions
- At the department level: Size and composition, Formal attributions
- At the lab's level: Size and composition, Formal attributions

*At the presidency/rectorate level*

- persons in charge of the research policy issues
  - numbers
  - statutes
  - mode of nomination
- structure in charge of the research policy issues
  - type (administrative office, cabinet,...)
  - number of staff
  - level of qualification of the staff
- Existence of a Transfer office
  - Formal Attributions
  - Staff and qualification/origin of staff

**Description of the higher education and research system**

*At the/territorial level*

- Influence of the territorial levels on higher education and research
- Structures in charge of the research policy issues at the territorial levels

*At the national level*

- Structures in charge of the research policy issues at the national levels
- Description of their roles and prerogatives

**II.5.a. Transversal issue 1: Autonomy**

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>How much autonomy does the university have in elaborating its Strategic Research Plan?</li> </ul>	<p><i>Process by which the plan is defined:</i></p> <ul style="list-style-type: none"> <li>Degree of participation (people involved...)</li> <li>Types of leadership (hierarchical, etc.)</li> </ul> <p><i>Implementation :</i></p> <ul style="list-style-type: none"> <li>Possibility of allocating part of the budget to the implementation of the Strategic Research Plan</li> <li>Possibility of allocating part of the budget to the implementation of the Strategic Research Plan</li> </ul>	<p><i>Definition of the plan:</i></p> <ul style="list-style-type: none"> <li>Internal documents on governance</li> <li>Documents on the overall Higher Education &amp; Research policy (University Act; Contract of objectives, etc)</li> <li>Construction of a table using the methodology of “heterogeneous criteria” which identifies the different phases and for each of them develops short items mostly calling for “yes or no” answers</li> </ul> <p><i>Implementation:</i></p> <ul style="list-style-type: none"> <li>Existing regulations and rules about the autonomy of the university in budget allocation and management of positions</li> </ul>
<ul style="list-style-type: none"> <li>What is the autonomy of the university in defining the content of the Strategic Research Plan, regarding external frameworks, procedures, priorities?</li> </ul>	<ul style="list-style-type: none"> <li>Compulsory versus voluntary Strategic Research Plan</li> <li>To what extent must the Strategic Research Plan take external compulsory priorities into account</li> <li>To what extent the Strategic Research Plan is a juxtaposition of the research unit projects</li> </ul>	<ul style="list-style-type: none"> <li>Internal documents on research strategy</li> <li>Look for existing external directives (from the local authorities, from national bodies, from ministries...)</li> <li>Look for reference being made to national/international trends or pressures</li> <li>Annual reports of Faculties/Departments/Units</li> </ul>

## OEU - Strategic Matrix

<ul style="list-style-type: none"> <li>• How much autonomy does each level have in the definition of a Strategic Research Plan?</li> </ul>	<ul style="list-style-type: none"> <li>• Degree of influence of the different levels in the construction of the Strategic Research Plan</li> <li>• Degree of influence of the different levels in the implementation of the Strategic Research Plan</li> <li>• Degree to which the Strategic Research Plan is a genuine "University program" agreed upon by all the relevant bodies and levels?</li> <li>• Degree to which the Strategic Research Plan is a combination of the particular research priorities defined by the composing bodies and levels?</li> </ul> <p>Levels = university/faculties/departments/labs/deliberative bodies</p>	<p>Internal documents on research strategy Annual reports of Faculties/Departments/Units Table using the methodology of "heterogeneous criteria" which identifies the different phases and for each of them develops short items mostly calling for "yes or no" answers</p>
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**II.5.b. Transversal issue 2: Strategic capabilities**

Key questions	Indicators <i>Implementation :</i>	Sources of Data and Qualitative Information <i>Implementation:</i>
<ul style="list-style-type: none"> <li>To what extent does the university have the ability to make strategic decisions and resource allocations according to the Strategic Research Plan, and to follow up and readjust?</li> </ul>	<ul style="list-style-type: none"> <li>% of the budget dedicated to the implementation of the Strategic Research Plan</li> <li>% of positions allocated according to the priorities defined in the Strategic Research Plan</li> </ul> <p><i>Follow-up and evaluation</i></p> <ul style="list-style-type: none"> <li>To what extent is the plan followed up and evaluated</li> <li>Existence of instruments and nature of the instruments</li> <li>To what extent do correction mechanisms exist and are they used</li> </ul> <p>The above potential indicators and those defined in the autonomy" transversal issue should help defining a profile for each university qualifying and positioning each university according to its practices within a typology to be defined.</p>	<p>Structure of the Univ. budget (see Dimension 1) Internal documents on governance</p> <p><i>Follow up and evaluation</i></p> <p>Existence (or not ) of intermediary reports on the Strategic Research Plan Instruments and descriptions of instruments Description of retroactive procedures if they exist</p>
<ul style="list-style-type: none"> <li>To what extent does the university have the ability to implement innovative research areas (seed money) according to the Strategic Research Plan?</li> </ul>	<ul style="list-style-type: none"> <li>Number and scope of the innovative research areas in the last 5 years</li> <li>Capacity to dedicate seed money to new projects</li> </ul> <p>Level : at least the university</p>	<p>Nbr of "new" research areas developed Identification of "priority research domains" % of research (or overall) budget to be used on a discretionary basis by the Univ. management (see WG Funding).</p>

<p>• To what extent can each level impact the Strategic Research Plan?</p>	<ul style="list-style-type: none"> <li>• Capacity of each level to decide on the formulation of innovative research programs or agendas?</li> <li>• Capacity of each level to decide on the implementation of innovative research programs?</li> <li>• Capability of each level to decide budget allocations</li> <li>• Capability of each level to decide human resource allocations</li> </ul> <p>Level = university/faculties/departments/labs/deliberative bodies</p>	<p>On a five (or ten) Lickert-type scale : “how important is the University – i.e. Rectorate Team / Presidential Team – in the formulation/implementation of innovative research programs?”</p> <p>On a five (or ten) Lickert-type scale : “how important is the University – i.e. Rectorate Team / Presidential Team – in the allocation of the research budget/human resources?”</p>
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### II.5.c. Transversal issue 3: Attractiveness

Key questions	Indicators	Sources of Data and Qualitative Information
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### II.5.d. Transversal issue 4: Differentiation profile

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>Does the content of its Strategic Research Plan distinguish the university from other institutions?</li> </ul>	<p><i>The aim of the following indicators would be to define the research profile each university is aiming to achieve according to its Strategic Research Plan and to assess whether it is clear or not, distinctive or not, etc.</i></p> <ul style="list-style-type: none"> <li>Degree of specificity/diversity of the Strategic Research Plan of the observed university with regard to the Strategic Research Plan of other Higher Education Institutions?</li> <li>Degree to which the Strategic Research Plan intends to develop what already exists within the university or instead defines specific sectors to foster explicitly(degree of concentration or dispersion in the priorities compared to the degree of concentration or dispersion of the university)</li> <li>ratio between interdisciplinary projects and non-interdisciplinary projects</li> <li>ratio between “traditional sectors” of science and new sectors : calculation of growth index (e.g. sharp ratio) and comparison with activity profile</li> </ul>	<p><b>Sources of Data and Qualitative Information</b></p> <p>Detailed analysis of the Strategic Research Plan</p> <p>References being made to orientations of other Higher Education Institutions.</p> <p>References being made to national research priorities and “niches” to be occupied</p> <p>Analysis of the Strategic Research Plans of comparable institutions</p> <p>Number of “key themes” identified in the Strategic Research Plan</p> <p>Number of “sub-themes” identified in the Strategic Research Plan</p> <p>Number of “disciplines” identified in the “key themes”</p> <p>Number of interdisciplinary projects / non-interdisciplinary projects</p> <p><i>(the idea being that are some disciplines may be identified as key drivers in the strategic positioning of the University)</i></p>

### II.5.e. Transversal issue 4: Territorial Embedding

Key questions	Indicators	Sources of Data and Qualitative Information
<ul style="list-style-type: none"> <li>• What are the degrees of participation of the different actors at different territorial levels of negotiation and influence?</li> </ul>	<ul style="list-style-type: none"> <li>• Negotiation of the strategic research plan</li> <li>• Participation of stakeholders (national – regional – local authorities / business representatives – representatives of funding agencies, etc) if any are part of the definition of the University strategic research plan?</li> <li>• Ways by which such an involvement materializes?</li> <li>• Degree of influence of the participating stakeholders</li> <li>• Intensity of the constraints exercised by the different stakeholders (national – regional – local authorities / business representatives – representatives of funding agencies, etc) in the definition of the strategic research plan</li> <li>• Capacity of influence on the research public policies at different levels</li> <li>• Participation of the members of the different bodies and levels (as defined earlier) in the formulation of local – regional – national – international research</li> </ul>	<p>Here, need to look for internal documents such as minutes of meetings; signatures in the main strategic documents, etc</p> <p>Through interviews, identify the main stakeholders involved</p> <p>or</p> <p>On a five (or ten) Lickert-type scale : “how important is this or that stakeholder in the process?”</p> <p><i>Through interviews or in the annual reports of the University or the Faculties: look for the social/political involvement of the members of staff</i> (for instance: member of research councils; member of special committees; expertise for political authorities, etc</p>

## OEU - Strategic Matrix

<ul style="list-style-type: none"> <li>• What are the needs to which (or objectives to which) the content is related to?</li> </ul>	<ul style="list-style-type: none"> <li>• Main “target” (or “scope”) of the Strategic Research Plan?</li> <li>• Policy level aimed at (local – regional – national – international)</li> <li>• Degree by which the Strategic Research Plan is part of a broader strategic development (maybe regional – national or international)</li> </ul>	<p>In the Strategic Research Plan, look for the rationale underlying its elaboration</p> <p>In the Strategic Research Plan, look for the policy levels identified as most relevant for the University research development</p> <p>In the Strategic Research Plan, look for “joint ventures” or other collaborative agreements made with other national or international institutions</p>
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### III. FOCUS ON TRANSVERSAL ISSUES

#### III.1. TRANSVERSAL ISSUE: AUTONOMY - KEY QUESTIONS FOR THE 5 THEMATIC DIMENSIONS ON UNIVERSITY RESEARCH MANAGEMENT

##### AUTONOMY

Funding	Human resources	Academic Outcomes	« Third mission »	Governance
<ul style="list-style-type: none"> <li>• What degree of freedom does the university enjoy in the use of government funding?</li> <li>• How significant is non-governmental funding used for research?</li> </ul>	<p>How much freedom does the university have to:</p> <ul style="list-style-type: none"> <li>• create new positions?</li> <li>• recruit and to allocate staff ?</li> <li>• specify staff duties?</li> </ul>	<ul style="list-style-type: none"> <li>• Does the research portfolio reflect the university's strategic choices of scientific fields or does it result mainly from national or European Framework Programmes for RTD priorities?</li> <li>• What degree of freedom does the university enjoy in evaluating the quality of Academic Outcomes?</li> </ul>	<ul style="list-style-type: none"> <li>• What university structures are in charge of relations with non-academic partners (transfer office, etc.)?</li> <li>• What investments has the university made in the process of its third mission (science parks, incubators, museums, etc.)?</li> </ul>	<ul style="list-style-type: none"> <li>• How much autonomy does the university have in elaborating its strategic research plan?</li> <li>• How much autonomy does the university have in defining the content of the strategic research plan, regarding external frameworks, procedures, priorities?</li> <li>• How much autonomy does each level have in defining a strategic research plan?</li> </ul>

**III.2. TRANSVERSAL ISSUE: STRATEGIC CAPABILITIES - KEY QUESTIONS FOR THE 5 THEMATIC DIMENSIONS ON UNIVERSITY RESEARCH MANAGEMENT**

**STRATEGIC CAPABILITIES**

<b>Funding</b>	<b>Human resources</b>	<b>Academic Outcomes</b>	<b>« Third mission »</b>	<b>Governance</b>
<ul style="list-style-type: none"> <li>• What is the amount of resources devoted to research activity?</li> <li>• How diverse is the funding basis for research?</li> </ul>	<ul style="list-style-type: none"> <li>• What is the actual use of incentives and performance-linked rewards (Salary, bonuses, promotion)?</li> <li>• What mechanisms are available for steering research career?</li> <li>• What are the schemes to enable junior researchers to develop their own projects</li> </ul>	<ul style="list-style-type: none"> <li>• What leverage does the university have to set scientific agendas in its various fields of activity?</li> </ul>	<ul style="list-style-type: none"> <li>• How is the third mission presented in the strategic research plan?</li> </ul>	<ul style="list-style-type: none"> <li>• What is the university ability to make strategic decisions and resource allocation according to the strategic research plan, and ability to follow up and readjust? • What ability does the university have to implement innovative research areas (seed money) according to the strategic research plan?</li> <li>• What ability does each level have to impact on the strategic research plan?</li> </ul>

**III.3. TRANSVERSAL ISSUE: ATTRACTIVENESS - KEY QUESTIONS FOR THE 5 THEMATIC DIMENSIONS ON UNIVERSITY RESEARCH MANAGEMENT**

**ATTRACTIVENESS**

<b>Funding</b>	<b>Human resources</b>	<b>Academic Outcomes</b>	<b>« Third mission »</b>	<b>Governance</b>
<ul style="list-style-type: none"> <li>• What is the capacity of the university in terms of fund-raising?</li> <li>• Which kind of external resources does the university attract?</li> </ul>	<ul style="list-style-type: none"> <li>• How Attractive is the institution (unit) for future and for qualified researchers?</li> <li>• How attractive is the university for research students at the PhD level (does it make sense to raise the same question at the level of student enrolment)?</li> </ul>	<ul style="list-style-type: none"> <li>• What scientific partnerships do appear in the university networks of co-publications?</li> <li>• What are the university's scientific partnerships characterized by its visiting fellows, the non local PhD, the academic events it organizes?</li> <li>• What scientific partnerships do appear in the university portfolio of participation in and coordination of international research program?</li> </ul>	<ul style="list-style-type: none"> <li>• What are the laboratories of non-academic actors located on the university premises?</li> <li>• What are the research collaborations with firms and non-academic public bodies outside the university premises?</li> </ul>	

### III.4. TRANSVERSAL ISSUE: DIFFERENTIATION PROFILE - KEY QUESTIONS FOR THE 5 THEMATIC DIMENSIONS ON UNIVERSITY RESEARCH MANAGEMENT

#### DIFFERENTIATION PROFILE

Funding	Human resources	Academic Outcomes	« Third mission »	Governance
<ul style="list-style-type: none"> <li>• What is the structure of the budget, by scientific field (large disciplinary groups) and by type of research (basic, applied, R&amp;D)?</li> <li>• What is the structure of the university's own resources that are allocated to and derived from research, by scientific field (see above) and by type of research (see above)?</li> </ul>	<ul style="list-style-type: none"> <li>• Is the institution clearly specialized in the training of PhDs?</li> <li>• What profile does the university choose for recruitment?</li> </ul>	<ul style="list-style-type: none"> <li>• In which fields does the university publish the major part of its scientific articles?</li> <li>• In which fields does the university publish the major part of its "non articles" Academic Outcomes (books, chapters, e-journals)?</li> <li>• What are the main instances of academic recognition that have been awarded to the university's researchers have earned?</li> </ul>	<ul style="list-style-type: none"> <li>• What are the main focal points of non academic collaboration for the university, in terms of industrial, cultural, and social relations?</li> <li>• What are the original/unique facilities and/or services located on the university premises and open to external actors?</li> </ul>	<ul style="list-style-type: none"> <li>• Does the content of its Strategic Research Plan distinguish the university from other institutions?</li> </ul>

**III.5. TRANSVERSAL ISSUE: TERRITORIAL EMBEDDING - KEY QUESTIONS FOR THE 5 THEMATIC DIMENSIONS ON UNIVERSITY RESEARCH MANAGEMENT**

**TERRITORIAL EMBEDDING**

Funding	Human resources	Academic Outcomes	« Third mission »	Governance
<ul style="list-style-type: none"> <li>• What is the geographical origin of research funding?</li> <li>• What is the geographical origin of young researchers funding?</li> </ul>	<ul style="list-style-type: none"> <li>• Are there mobility enhancing activities?</li> <li>• Is there regional support for training researchers?</li> <li>• Is there regional support for recruiting qualified researchers?</li> </ul>	<ul style="list-style-type: none"> <li>• What are the main geographical levels of scientific cooperation for the university?</li> <li>• Where do the university PhDs students come from and where do they go to after completion of their PhD?</li> </ul>	<ul style="list-style-type: none"> <li>• What are the main geographical levels of the university industrial cooperation?</li> <li>• What are the main geographical levels of involvement in policy and public debate for the university for shaping / accompanying regional / national / international policies?</li> <li>• What are the universities specialised structures open to the public (law shops, museums, libraries, etc.)?</li> </ul>	<ul style="list-style-type: none"> <li>• What are the degrees of participation of the different actors to different territorial levels of negotiation and influence?</li> <li>• What are the needs to which (or objectives to which) the content is related to?</li> </ul>

## OEU - Strategic Matrix





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