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Acronym of the project	UNISTRA
Titre du projet en français	Par delà les frontières, l'Université de Strasbourg
Project title in English	Beyond frontiers, the University of Strasbourg
Project manager	Name: Prof. Alain Beretz, President Address: 4, rue Blaise Pascal, CS 90032 F-67041 Strasbourg cedex
Institution leading the project (Project leader)	Name: University of Strasbourg
Capital grant requested	906.626.000 €

### **Structure of the Idex partnership**

Etablissements d'enseignement supérieur et de recherche	Organismes de recherche	Autres
University of Strasbourg	CNRS	
	INSERM	

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# APPEL A PROJETS IDEX CALL FOR PROPOSALS 2010

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### 1. AMBITION AND STRATEGY OF THE PROJECT

Created by the successful merger of three universities in 2009, the University of Strasbourg has a truly pluridisciplinary identity. With some 2,400 permanent researchers and lecturers, it is one of the most outstanding research universities in France. It is anchored in a cross-border culture blending French and German influences. The university's ambition is to strengthen its position as a reference in innovative research and teaching in Europe. Its mission is to push back the frontiers of knowledge and contribute significantly to economic development and social progress.

## 1.1. THE UNIVERSITY OF STRASBOURG, A PLURIDISCIPLINARY RESEARCH UNIVERSITY OF EXCELLENCE

Founded in 1621, the University of Strasbourg has built upon a long humanist and scientific tradition. It reinforced its academic influence over the centuries and no less than 17 Nobel Prize winners have been part of its faculty. The 20<sup>th</sup> century was a time of strong development of its research infrastructures, particularly as it became one of the main implantations of the CNRS\* outside the Paris area. Indeed, the CNRS and the INSERM\* are partners in this "Initiative d'excellence" application, reflecting their strong relationship with the university.

With 2,400 full-time lecturers and researchers, the University of Strasbourg is, together with its partners, the first French university in terms of its overall impact factor (source: Thomson Reuters 2008) and the first university outside Paris in the 2010 Shanghai ranking. In natural sciences, the university has particularly excellent results, chiefly in chemistry, fundamental biology, engineering sciences and physics. The University of Strasbourg is a founding member of the League of European Research Universities (LERU) which gathers 22 leading universities that share the values of high-quality teaching within an environment of internationally competitive research.

The University of Strasbourg offers **academic programs in all scientific disciplines**, with a particular focus on pluridisciplinary approaches. Its attractiveness is attested by the fact that nearly 30% of our 42,000 students come from other regions (40% for masters and PhDs) and a further 20% come from abroad (up to 50% for PhDs). In addition, the University of Strasbourg ranks second nationally in lifelong learning.

Our university also has a strong commitment to technology and knowledge transfer. For instance, we are a founding member of the international cluster Biovalley, one of the most important clusters in biotechnologies and health services in Europe.

Our university is also distinctive through its shared history between French and German influences. This history naturally binds us to the Upper Rhine region, which concentrates a core academic potential in Europe; we have developed strong links with the universities of

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 $<sup>^{\</sup>ast}$  For all the acronyms, marked with a  $^{\ast}$  symbol, see the glossary at the end of the document

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Basel, Karlsruhe and Freiburg. The international dimension is in this respect an essential part of our culture and nearly a second nature.

In 2009, the University of Strasbourg made its mark on the French academic landscape with the merger of the three universities in Strasbourg, thereby becoming the largest French university. This successful merger has empowered our university with a robust governance culture to pursue its transformation and increase the quality of its missions. In this sense the University of Strasbourg is today the only one able to answer and meet the stringent governance criteria of the "Initiatives d'excellence" call for proposals. Through this unique accomplishment, the University of Strasbourg has also shown that its application for this competition is entirely legitimate and credible.

Ambitious by tradition, European by nature, international by design, the University of Strasbourg is convinced that the opportunity of the "Investissements d'avenir" will be a key asset for its long-term strategic development. By applying to the "Initiative d'excellence" call, it shows it is faithful to its history of excellence and responsibility.

### 1.2. OUR AMBITION: A LEADING UNIVERSITY IN EUROPE

Academic institutions are today confronted with the challenges of an ever accelerating internationalization process impacting all their activities. This results in increased mobility of staff and high potential students, influence of international rankings, concentration of grants on the best universities world wide and stronger demands from society.

These challenges are simultaneously tremendous opportunities. Indeed, globalization has stimulated a huge demand for knowledge: the leading firms and economies are those that have anticipated scientific, technological or sociological breakthroughs, using an edge in knowledge and research to devise new products and services to stay ahead in global competition. More than ever, the quality of training and research is decisive for economic development, prosperity and social progress.

What is at stake is not only our mission, but also our position in these rapid evolutions. Which role do we want to play in this new context? How can we make our teaching and research practices evolve to adjust to- and anticipate these evolutions? How can we harness the new opportunities of mobility of high potential talents and the rapid circulation of knowledge in today's interconnected societies?

To these essential questions, our answer is twofold. On the one hand, the University of Strasbourg is striving to be a driving force behind theses evolutions; we must acquire the means to reinforce our contribution to knowledge production and dissemination, against a background of a developing knowledge society. What we want is **to position our institution among the 20 leading European universities** in terms of research, teaching and knowledge transfer. On the other hand, we want **to strengthen our identity and especially our Franco-German culture**. Located on a historically tumultuous frontier, our university is deeply committed to the European project. That is why our project associates two German *Exzellenzinitiativen*: the Karlsruhe Institute of Technology and the University of Freiburg with which we have recently signed a strategic partnership.

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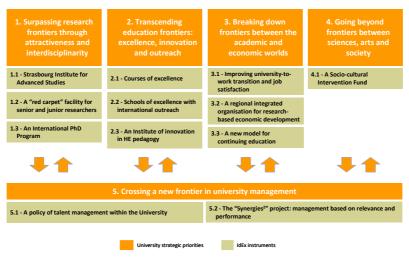
#### 1.3. OUR PROJECT: "BEYOND FRONTIERS"

The University of Strasbourg has a history and an ambition of excellence. It is now time to reach another dimension. Thus we do not consider the "Initiative d'excellence" as a mere budgetary expedient. On the contrary, the university will use it to implement original instruments that will sustain and reinforce its ambition, through an innovative mode of funding characterised by its flexibility, reactivity, and capacity to accelerate transformation in all fields.

The applications of the university to the "Investissements d'avenir" calls (EquipEx\*, LabEx\*, IHU\*, SATT\* ...) rely on an overall multidisciplinary strategy involving research, education, technology transfer and international attractiveness. The "Initiative d'excellence" project is the keystone on which the answers to the different calls depend in order to produce a dynamic effect on its "Excellence Perimeter" and beyond, on the university as a whole.

The university has opted for an approach by "instruments" rather than presenting a juxtaposition of projects. Such structural instruments will allow for the continuing emergence of excellence, whereas a mere collection of projects produced from the outset would severely constrain the strategic leverage effects and run the risk of setting into stone scientific orientations which could become rapidly outdated.

These instruments have been structured around five strategic priorities devised to achieve our ambition of excellence in research and education, strengthen bridges between the academic and the socio-economic environments, and break new grounds in university management.



The project of the University of Strasbourg, located in a frontier-city and a European capital, rests on the ambition to go beyond the frontiers of science production, diffusion or transfer of knowledge.

**Surpassing research frontiers through attractiveness and interdisciplinarity** – The creation of an Institute of Advanced Studies will provide high level scholars with a working environment susceptible to broaden scientific perspectives and challenge disciplinary paradigms. With a "red carpet" instrument, our university will have the means to recruit at

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the international level and as a result, to further strengthen our research capacities in the face of international competition. Our European PhD Program will transform our university into an attractive European pole for young academics with the highest potential.

Transcending education frontiers through excellence, innovation and outreach – The courses of excellence, in the form of double diplomas and/or French-German courses will strengthen our attractiveness among high potential and international students. On this basis, and supported by the experience of our internal "grandes écoles", we will gradually set up internationally visible "Schools of excellence", for instance in the fields of engineering, political or management studies. More generally, the University of Strasbourg will stimulate experimentation, develop and spread innovation through the creation of an Institute of innovation in Higher Education pedagogy. Its aim is to renew approaches and to disseminate innovative teaching and learning practices.

Breaking down frontiers between the academic and economic worlds – With the support of local authorities, our university will be the architect and the driving force in an integrated strategy of research-based economic development. The inclusion of all actors of the innovation chain within a common consortium will secure coherence and efficiency for the implementation of this strategy. In the field of training, the University of Strasbourg will strengthen the university-to-work transition by seeking to adapt its curriculum and practices, and reinforcing dialogue with employers. This commitment will also lead us to restructure our continuing education offer to make it more flexible, more modular, and harness the potentialities of new distance learning technologies.

Going beyond frontiers between sciences, arts and society – Thanks to the creation of a student arts festival, the organisation of master classes delivered by famous European artists or scientific conferences linked to European current affairs, the University of Strasbourg commits itself to creativity and dialogue with civil society both at a local and at an international level.

Crossing a new frontier in university management – The intensification of the competition between universities call us for an ambitious and rigorous policy for talent management. Our objective is not only to ensure the quality of recruitments but also to support the personal and professional development of our staff. The constraints on public finances also lead us to implement a "Synergies<sup>2</sup>" fund aimed at encouraging our departments to pool resources in order to implement innovative projects.

#### 1.4. AN EFFORT FOCUSED ON A "PERIMETER OF EXCELLENCE"

The means of the "Initiative d'excellence" programme will be mainly focused on a perimeter of excellence that the University of Strasbourg has defined through the contours of its LabEx projects. This perimeter is both **highly selective** (comprising only one third of its lecturers and researchers) and **pluridisciplinary**, by including research teams in all the three main disciplinary sectors of the university. The internationally recognised scholars involved in these LabEx will actively contribute to the attractiveness of the university as a whole.

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The topography of this perimeter delineates the priorities of our development strategy which are currently being defined in the framework of its 2013-2017 research and education strategy:

- To reinforce our excellence in the fields where we have solid competitive advantages, to cross new scientific frontiers in biology and health sciences, natural science and technology, social sciences and humanities;
- To foster interdisciplinary approaches between hard sciences, social sciences and humanities, particularly in relation to complex issues like sustainable development, healthcare or European integration.

The University of Strasbourg is also attentive to the importance of developing new domains of excellence in the future. In order to enhance emulation and pull effects, which guarantee our vitality, this perimeter of excellence will be submitted to a periodic reassessment. In addition, the instruments implemented within the framework of "Initiative d'excellence" programme will be opened to all research teams of the university and 30% of the sums will be allocated to teams that are not (yet) part of the perimeter of excellence but have clearly demonstrated their potential.

On the whole, three key elements need to be underlined:

- The funding by researcher is 4 times higher inside the excellence perimeter than outside. The university will indeed concentrate 70% of the funds on the excellence perimeter, while this perimeter represents only 1/3 of the total academic staff;

 $<sup>^{\,1}\,</sup>$  Research staff numbers considered here are those of the permanent researchers and faculty members of the campus.

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- The bulk of the funds will be concentrated on research (40%) and education (31%). Other priorities include relations with the economic sector (10%) and performance management within the university, talent management included (12.7%);
- The university also aims to mobilise and generate significant external resources through the "initiative d'excellence", thanks its partnerships with both local authorities and private firms, and through a stronger involvement in public and private research contracts.

### 2. STRUCTURE AND CHARACTERIZATION OF THE EXCELLENCE INITIATIVE

#### 2.1. Presentation of the University of Strasbourg

The origins of the University of Strasbourg reach back to the 16<sup>th</sup> century and it has steadily developed throughout its history all while cultivating a strong European, humanist and research-based identity. In the wake of 1968, the University of Strasbourg was divided into three different universities with complementary academic focuses, as many other universities in France. On January 1 2009, it was the first and, up to now, the only French university to have re-merged as a single, truly multidisciplinary university.

The University of Strasbourg dates back to the foundation of a protestant Gymnasium by Jacques Sturm in 1538. It was recognised as a full-fledged university in 1621 and gradually became a leading centre of European intellectual life, with prominent members and/or students such as Goethe and Metternich. It saw an exceptional development under the



German Empire after 1871 with the building of several reference libraries, museums and institutes and has counted 17 Nobel Prize winners among its faculty. Its development has continued in the 20<sup>th</sup> century, most notably with a very strong implication of French national research organisations such as the CNRS and the INSERM.

Located within a bicultural geographic area, the University of Strasbourg is European by nature and international by design. With more than 42,000 students, it is furthermore the beating heart of Strasbourg, the hub of Alsace and a capital of the European Union. The city is indeed an international

centre, with a strong diplomatic and media presence and outstanding transport infrastructures connecting to the whole of Europe. It is home to the European Parliament, the Council of Europe, the European Court of Human Rights and the European Science Foundation.

The University of Strasbourg can be defined by three main characteristics:

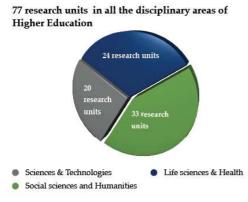
- A European university rooted in history;
- A multidisciplinary research-intensive university of excellence;
- Significant international attractiveness and cooperation.

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#### 2.1.1. EXCELLENCE IN RESEARCH

#### A MULTIDISCIPLINARY RESEARCH-INTENSIVE UNIVERSITY

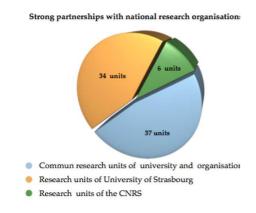
The main strength of the University of Strasbourg stems from its active involvement in virtually every scientific discipline. Many of its research teams have a worldwide reputation in domains such as Life Sciences & Health, Chemistry, Physics, Materials & Nano-sciences, Earth and Universe Sciences, Mathematics, Engineering, but also Humanities and Social Sciences.



"Blue sky" research is a major asset for the university's development. Research activity at Strasbourg is structured around 77 "research units"<sup>2</sup>, the driving force of the institution, with over 2,400 faculty members and "permanent researchers"<sup>3</sup> and 2,000 support staff. More than 40 of its research units are associated with national research organisations such as the CNRS, the INSERM or the INRA\*.

PhD programs are run by ten Doctoral Schools, each with their own academic area and maintain strong relations both to the research teams where PhD students work on a daily basis, and to the "European Doctoral College", which is a host and support institution for the best international PhD students (see section 2.1.2. hereunder).

**Partnerships with national research organisations** – The excellence in research in many academic sectors has been made possible by strong partnerships with the national research organisations, in particular the CNRS and the INSERM:



• The second largest scientific involvement of the CNRS outside the Paris area: concentrated in the 1950s and 1960s in physics and mathematics, the partnership now covers all major disciplines of the CNRS with more than 40 research units and 1,245 researchers and support personnel on CNRS payroll. The first convention of the CNRS and a French university was signed with the University of Strasbourg, testifying to the strength and confidence of this relationship.

<sup>&</sup>lt;sup>2</sup> In the French Higher Education and Research system, a "research unit" is a large laboratory or an institute, often pluridisciplinary, where many principal investigators and support staff are gathered typically around a given theme. The research units can be funded jointly by the university and a national research organisation, or be funded only by the university, in which case it is comprised of university faculty and support staff

<sup>&</sup>lt;sup>3</sup> "Permanent researchers" are typically scientists on the payroll of a national research organisation. When located on a campus, they participate in the campus life in the same way as university faculty except that they are not required to teach. Many teach and hold responsibilities such as participating in university councils, directing research units, etc.

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In the field of Social Sciences & Humanities, the CNRS is partnered with the university in the "Maison Interuniversitaire des Sciences de l'Homme – Alsace" (MISHA)\*, a host and support structure concentrating in particular on studies in Ancient history and European studies. In Chemistry and other related fields such as Physics, Material Sciences, and Life Sciences, the CNRS has co-founded with the university a "Réseau Thématique de Recherche Avancée" (RTRA)\*, the only excellence research center of this type awarded in chemistry by the French ministry of Higher Education and Research.

• A strong partnership with the INSERM, with 10 research units associated primarily with the university hospital and the Faculty of Medicine. Among them, one should note the presence of prestigious research institutes in Molecular and Cellular Biology, in Virology or in Neurosciences.

The University of Strasbourg has also shown in the recent years **a strong capacity to raise research funding** from public and private sources:

- A total of 21.6 M€ in research funding from public institutions in 2009 (regional, national and European sources);
- A major involvement in European Framework Programs, with 14.14 M€ in the FP6 and 61.31 M€ in the FP7 (including integrated projects and cooperation projects).

#### EXCELLENCE IN RESEARCH AT THE INTERNATIONAL LEVEL

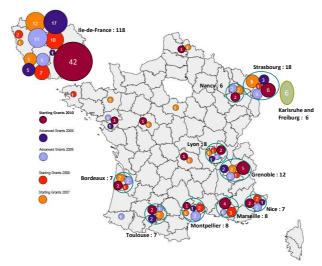
The University of Strasbourg is one of the leading French research-intensive universities as shown in international rankings, but also through bibliometric indicators (when relevant) or when looking at national and European academic distinctions:

- First French university outside the Paris area in the Shanghai University Ranking 2010 as well in the ranking of the Taiwan assessment agency; first French university in Chemistry (worldwide rank 14, the only French university in the top 100); first French university outside Paris area in Mathematics (worldwide rank 77-100);
- Second French institution (and first university) outside the Paris area in the QS World University Ranking 2010, it also ranks in the worldwide top 200 in Natural Sciences, Arts & Humanities, Life Sciences & Medicine;
- First institution in France for the impact factor of its scientific publications (Thomson Reuters bibliometric indices, 2008), as processed by the French Observatory for Science and Technology (OST). Outstanding disciplines in this respect are Chemistry, Material Sciences, Fundamental Biology, Engineering Sciences (first national rank) and Physics (second national rank);
- 4th French institution in the number of CNRS Medals (all disciplines) and members of the "Institut Universitaire de France" (IUF)\*, with half of them from Social Sciences and Humanities;
- One active Nobel Prize winner, Prof. Jean-Marie Lehn (Chemistry, 1987), 14 members of the French Academy of Sciences and 5 professors of the "Collège de France";

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• 2<sup>nd</sup> French institution for the number of European Research Council (ERC) grants with 18 advanced and starting grants (as of 2010), as shown on the map below:



**EUROPEAN RESEARCH COUNCIL GRANTS 2008-2010** 

The most recent assessments of the AERES\*, the National Agency for Research and Higher Education Evaluation, in 2008 have highlighted a globally positive assessment of research at the University of Strasbourg with almost 50% of the research units ranked A or A+ (on an A+ to C scale). At an individual level, the assessments of AERES confirm a very positive ratio of the activity of research staff, with 70% lecturers and researchers identified as "actively publishing", 2/3 of which are members of A and A+ research units (or about 1,200 active researchers in A or A+ research units).

#### **EXCELLENCE IN THREE ACADEMIC DOMAINS**

Excellence in research at the University of Strasbourg is present in all the three academic sectors distinguished below, with the strongest position in the fields of Sciences & Technologies, and Life Sciences & Health.

#### Sciences & Technologies - A brief overview

Sciences & Technologies hold a premium position within the university with several key disciplines. This domain encompasses 20 research units, among which 16 have been rated A or A+ by the AERES. 10 faculty members belong currently to the IUF.

This field is especially recognised in Chemistry with Prof. Jean-Marie Lehn, Nobel Prize, and the founder of the ISIS\* Institute. Chemistry in Strasbourg is the only French Excellence Institute (RTRA) in this discipline and is ranked the 14th worldwide in the Shanghai University ranking (it is the only French university in the top 100).

Physics (2<sup>nd</sup> national Impact Factor), Engineering Sciences (1<sup>st</sup> national Impact Factor) and Mathematics (1<sup>st</sup> university outside Paris area in the top 100) are the other leading disciplines. Finally the interdisciplinary domain on Materials and Nano-sciences, combining Chemistry and Physics is particularly dynamic in Strasbourg.

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SCIENCES &	SPECIALISATION INDEX			SCIENTIFIC PRODUCTION (WORLD PART - %)			IMPACT FACTOR		
Technologies (2008)	UNISTRA	FRANCE	NATIONAL RANK	UNISTRA	FRANCE	NATIONAL RANK	UNISTRA	FRANCE	NATIONAL RANK
Chemistry	1,72	0,99	1 <sup>st</sup>	2,06	38,6	3 <sup>rd</sup>	1,66	1,12	<b>1</b> <sup>st</sup>
Engineering Sciences	0,46	0,99	22 <sup>nd</sup>	0,80	41,4	11 <sup>th</sup>	1,46	1,07	<b>1</b> st
Physics	0,91	1,13	12 <sup>th</sup>	1,43	47,5	7 <sup>th</sup>	2,52	1,10	2 <sup>nd</sup>

### Life sciences & Health - A brief overview

Life Sciences & Health is a key scientific domain in Strasbourg with a significant number of internationally recognised researchers. 24 research units are present in this field, with 16 rated A or A+ by the AERES. The international recognition of Strasbourg in this domain derives mainly from the work of prestigious institutes such as the IGBMC\*, the IBMC\* and the IBMP\* as well as internationally renowned senior researchers.

The University of Strasbourg is especially recognised in Fundamental Biology, including genetics and molecular biology, and Applied Biology, including vegetal biology, with the best impact factor in France and the second national rank for the number of its IUF members. Moreover, the University of Strasbourg is strongly involved in the Alsace BioValley competitiveness cluster, which is one of the top French clusters in the health sector.

LIFE SCIENCES &	SPECIALISATION INDEX		SCIENTIFIC PRODUCTION (WORLD PART - %)			IMPACT FACTOR			
HEALTH (2008)	UNISTRA	FRANCE	NATIONAL RANK	UNISTRA	FRANCE	NATIONAL RANK	UNISTRA	FRANCE	NATIONAL RANK
Fundamental Biology	1,51	0,92	2 <sup>nd</sup>	1,81	46,8	5 <sup>th</sup>	1,26	0,99	1 <sup>st</sup>
Applied biology & Ecology	0,36	0,77	18 <sup>th</sup>	0,91	32,2	15 <sup>th</sup>	2,10	1,28	1st

### Social sciences and Humanities - A brief overview

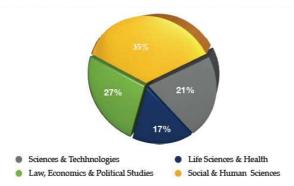
Economics & Political Studies, Law, Social and Human Sciences encompass 33 research units. With 13 rated A or A+ by AERES, they appear as the 9th AA+ researcher community in France in Economics and Political Studies and as the 16th AA+ researcher's community in France in the other disciplines, with well recognised specialties in History, Germanic and European Studies, Arts, Languages and Literatures, Religious sciences. Research units in Law, Economics and European Studies have received five "Jean Monnet Chairs" from the European Union since 2004.

### 2.1.2. A LEADING TEACHING INSTITUTION IN FRANCE AT THE FRONTIER OF KNOWLEDGE

The biggest university in France: 42,260 students are enrolled at the University of Strasbourg (as of Fall 2010), including 56% undergraduate students and 44% graduate and

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PhD students. These are distributed in the different academic sectors as shown in the graph below:



Academic courses attractive both in France and internationally – The degrees offered by the University of Strasbourg enjoy a significant attractiveness, with 30% of the student body coming from other French regions. Our university is also a leading French university in terms of its proportion of foreign students, with 20% of our students coming from all around the world. Strasbourg is the first university in France in terms of the proportion of foreign PhD students. In attracting such students and program participants, the University of Strasbourg introduces an important element of diversity with 150 different nationalities present on our campus, thereby reinforcing the circulation of knowledge and learning through discussion and teamwork.



These ratios show that the higher the degree, the higher the attractiveness, with around 40% of students from France (outside Alsace) and more than 32% from abroad in Master and PhD taken together. It is worth noting that there is a higher proportion of graduate students in Strasbourg than in the average French university (38% in Master and 6% in PhD programs).

A major centre for PhD studies in France – With ten Doctoral Schools and about 2,600 PhD students (47% are foreign), PhD programs are a priority for the University of Strasbourg. Admittance to a Doctoral School is highly competitive. The University currently spends around 12 M $\epsilon$  a year to support PhD students, with approximately 150 PhD grants per year, while 350 other PhD students have external grants or support. In other words, the vast majority of PhD students in the experimental sciences are paid either by the university or from external grants.

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In addition to several joint PhD programs, the "European Doctoral College" is a key actor in promoting the international visibility of PhD programs of the university. It is an interdisciplinary host structure managed jointly by the Doctoral Schools. It hosts about 100 PhD students from all disciplines and provides them with low-price accommodation on the campus, favouring sociability and academic exchanges, access to dedicated courses and several financial advantages (especially for travel costs). Admittance is competitive and all applicants must be registered for a PhD both in Strasbourg and in a foreign university, through the "cotutelle" scheme.

A strong multidisciplinary offer – Beyond disciplinary courses in its fields of excellence, the University of Strasbourg offers specific multidisciplinary curricula in its departments and in several schools or intitutes such as:

- Institute of Political Studies Founded in 1945, the Institute of Political Studies (IEP or Sciences Po Strasbourg) is the oldest IEP outside Paris. It trains a thousand students (following a five-year program) from all around the world in political science, economics, law, history and international relations.
- Centre for Intellectual Property Studies The International Centre for Intellectual Property Studies (CEIPI) was founded in 1963. Since its creation, the CEIPI has been committed to training intellectual property specialists: engineers, holders of scientific degrees, legal scholars or practitioners, for a wide range of professions in the IP field, especially French or European patent attorneys.
- Strasbourg School of Management The EM Strasbourg is the only management school within a university in France. It trains students to become trilingual managers to develop quality entrepreneurial skills and spirit and thereby contributes to business development.

An education strategy for the university – As a newly merged university, the University of Strasbourg has launched a wide ranging reflection to elaborate a new teaching strategy for the period 2013-2017. The curriculum blueprint was adopted by the Administration Council of the university in December 2010. It is based on a large consultation, has taken into account the last AERES assessments of 2008, as well as the results of internal programs "Success for Bachelor students" and "Study support workshops".

The curriculum blueprint for 2013-2017 is built around the following objectives:

- Setting up accelerated courses for the brightest students at both Bachelors and Masters levels;
- Creating interdisciplinary and multidisciplinary programs with a major/minor degree structure at Bachelors and Master levels;
- Reinforcing the articulation between course contents and the research activities as was advised by the 2008 AERES assessment;
- Better adapting our curriculum to the requirements of the workplace of tomorrow and to student demand;

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- Developing the international dimension of the curriculum by proposing more lectures and seminars taught in foreign languages;
- Fostering a sharing of courses between different Masters programs in order to reinforce pluridisciplinarity and gain leeway to create new innovative courses;
- Relying heavily on innovative pedagogic methods and digital tools;
- Developing the relations and exchanges with alumni in order to facilitate the orientation of new students and the access to the workplace, as well as reinforce the international attractiveness of the university.

The "Excellence Initiative" represents a key instrument and a catalyst to facilitate and accelerate the implementation of this ambitious curriculum blueprint.

#### 2.1.3. A RECOGNISED COMPETENCE IN TECHNOLOGY AND KNOWLEDGE TRANSFER

The University of Strasbourg has a strong commitment to strengthen its relationships with its partners in the business world, with the aim of contributing to the economy through codevelopment and exploitation of research results.

Its Technology Transfer Office founded the **Conectus Alsace** network, incorporating all regional public technology transfer services (including the universities of Strasbourg and Haute Alsace, the CNRS, the INSERM and the Strasbourg University Hospital). It is one of the first such structures developed in a French university. It strives to promote and develop applied research and to facilitate partnerships with economic and institutional actors. Alsace is one of 6 regions in France (out of 22) in which public R&D represents more than 40% of total R&D spending. Thanks to this structure, the quality of its research activities and the strength of its relations to the private sector, the university secured 14.4 M€ in private contracts in 2009 (research contracts, innovation support, royalties on patents ...).

The high level of integration of the innovation ecosystem makes Alsace a benchmark in France in this vital area. This is due to a remarkable collaboration involving:

- the Conectus Alsace network, sponsoring a "proof of concept" fund (over 4M€), unique in France. In the framework of the "Investissements d'avenir", this network prefigures the SATT dedicated to accelerating technology transfer in Alsace;
- a strong partnership between the University of Strasbourg and the INSERM, the only one of its kind in France, in which the university TTO office manages all private research contracts for the INSERM;
- a network of "competitiveness clusters" such as **Alsace Biovalley**, a world-class cluster on biotechnologies and medicine, which associates businesses, technology transfer centres and research institutes;
- the development of **SEMIA**, an outstanding regional start-up incubator service.

This local policy was confirmed one year ago by the Regional authorities, who elaborated a "Regional Innovation Strategy" to further economic development in three key areas:

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- "green" economy (environmental challenges, new energies, green chemistry ...);
- quality of life and healthcare issues (biodiversity, agriculture, new medical devices, therapeutic innovations ...);
- humanism and social development (cultural industries and creativity, social innovations ...).

The City of Strasbourg has also defined an ambitious economic strategy "Strasbourg Eco 2020", which seeks to stimulate investments in innovative medical devices, cultural and creative industries, mobility and sustainable development.

Because the domains identified by local and regional authorities largely correspond to the areas of excellence of the University of Strasbourg, the "Initiative d'excellence" project can provide tools to reinforce these partnerships which will be vital to meeting the challenges of the 21st century.

### 2.1.4. ACADEMIC FACILITIES, SOCIAL AND CULTURAL LIFE ON THE CAMPUS

**Information system (IS) and language facilities** – The university campus is already well equipped with computer rooms, Wifi access and multimedia terminals as well as wideranging electronic resources available for students and staff through their personal "digital workplace", with access to e-mail, online learning tools, virtual library, campus news and administrative services. The University of Strasbourg has been the first French university to develop an IS master plan, adopted in January 2010, to develop digital infrastructures for all members of the university community.

The University of Strasbourg, offers language courses in 25 languages and training in French for foreign students, and provides further support through "Language Resource Centres". Our university certificates accreditations for languages skills, which enhance the students' mastery of many languages and facilitate multilingualism.

**Libraries** – The library network of the university consists of 31 libraries, with almost two million volumes and more than 27,000 periodicals and data bases covering all disciplines. Moreover the National University Library in Strasbourg (BNU), the second largest in France, is associated with the university and contains more than three million volumes, covering in particular Social Sciences, Humanities and Law. The BNU is particularly renowned at the international level for its collections on Antiquity, Germanic languages and culture, and Religious studies.

**Social & cultural life** – Cultural life is animated by a cultural service of the university which organises and sponsors many events throughout the year. Culture on campus benefits from a university orchestra, a university theatre troop, a WebTV channel and associative activities (chorus, film club, multiple sports clubs ...) as well as optional art courses (poetry, photography ...). The university supports student associations, encouraging them to enrich life both on the campus and in the local community. Specific procedures and facilities are in place to welcome and integrate foreign students and a House for international students is planned in the framework of the "Opération Campus" of the university (see below).

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Cultural life also derives substantial benefits from the location of the main campus in the city centre. In order to facilitate student access to cultural events in the city (concerts, exhibitions, theatre performances, master classes ...), the University of Strasbourg has developed partnerships with cultural institutions, such as the Opéra du Rhin, the Théâtre National de Strasbourg and the Fonds régional d'art contemporain. An innovative student "Culture Card" offers discount access to a large number of cultural events such as concerts or movies and free admission to several museums.

The University of Strasbourg has itself one of the most prestigious ensembles of academic collections in Europe: a botanical garden, an astronomical observatory, scientific museums and collections in mineralogy, zoology, seismology or plaster casts which are accessible to the general public. The popularization of scientific and technical culture is another priority for the university: a space dedicated to scientific exhibitions has been set up and open societal debates are regularly organised through the initiatives "Savoir(s) en commun", "Théâtre des Sciences" and "Jardin des Sciences".

#### 2.1.5. STRATEGIC ASSETS OF THE UNIVERSITY AS THE PROJECT LEADER

#### A REAL STRATEGIC CAPACITY AS A SINGLE UNIVERSITY

A single governance structure since 2009 – Because the "Initiative d'excellence" targets not institutions but regional sites, a merger or federation of universities can constitute an objective in itself for other candidates. The University of Strasbourg has already attained this objective, and our proposal builds upon several years of long-term strategic reflection dating back to the preparation for the 2009 fusion. The current proposal is therefore built into a long term evolving learning process, and is not an *ad hoc* project seeking to satisfy (at short notice) the requirements and specifications of the "Initiative d'excellence". Thanks to this merger and its access to autonomy in 2009, the university disposes a unique coherence and reactivity to develop and implement its strategic vision. It has already adopted in December 2010 a curriculum blueprint for 2013-2017 and is currently working intensively on its long term strategic plan for research. The experience of the merger has also demonstrated the capacity of mobilisation and transformation of the university on a large scale, involving all members of our academic community and this lends further credibility to its project.

The University of Strasbourg is the project leader of this "Initiative d'excellence" in the name of all its partners on site in Strasbourg. The actual governing bodies of the university will in this respect be responsible for its implementation and success (see section 4). It is, in this respect, the only university in France able to answer this call for projects without first undertaking a major overhaul of its governing bodies. But, considering the specific requirements and challenges implied by this project, three original operational structures will be involved in the management of the "Initiative d'excellence" (see section 4):

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- The collegiums<sup>4</sup>, which will play a role in the definition of the long term scientific priorities under the responsibility of the Scientific Council;
- The Strategic Orientation Committee, which will be in charge of the strategic supervision of the Initiative;
- The Foundation of the university, established in 2009, which will be responsible for the management of the "Initiative d'excellence" funds and will coordinate the related fundraising activities.

The Foundation of the University of Strasbourg is a subsidiary of the university whose goal is to promote development by raising funds and managing endowments. It launched its first campaign in 2009 with the objective of raising 20 M€ by the end of 2014. By November 2010, 35% of this target has already been reached. The first donations obtained from individuals and companies have funded post-doctoral grants, need-based scholarships and the endowment of two chairs: one in Supramolecular Chemistry and the other in Creativity Management. Its board of directors is composed of representatives of the founding members, staff representatives, and external qualified personalities.

The progressive implementation of a management policy based on relevance and performance – In 2009, the creation of the university established an integrated management policy defined at the university level but also declined at the level of departments. The funding policy is in large part based on the achievements and the innovative projects of the departments, and how they contribute to the university strategy as a whole. Based on a stringent evaluation process covering education, research, finance, HR, real estate, health and safety rules, an annual review process strengthens the relationship between the university central services and the departments and also allows for an evaluation of policy over time.

The positive context of the "Opération Campus" – In 2008, the University of Strasbourg was one of the first universities in France to be selected for the competitive "Opération Campus" programme launched by the French ministry of Research and Higher Education. This programme will fund major building projects such as a Learning Centre, a Faculty Club, a House for International Students, a House of Arts and Sciences and several renovation projects. It will end by 2020 and benefit from a 375 M€ endowment from the government and 300 M€ from local authorities. Through this programme, many of the projects of the Initiative will therefore be housed in state-of-the-art facilities.

#### **EUROPEAN BY NATURE, INTERNATIONAL BY DESIGN**

The University of Strasbourg is a member of the European University Association (EUA), the pan-European platform for universities and Higher Education policies. It has significant

<sup>&</sup>lt;sup>4</sup> Nine collegiums were set up during the merger, each encompassing the departments within their disciplinary area. They have no management responsibilities but they play a major role in fostering cooperation in teaching and providing a platform for exchange of information and devising of new curricula. In the domain of research, they assess and rank research projects submitted by departments and research units for internal funding. As such, they prepare the decisions of the Scientific Council on the allocation of internal research funds.

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international assets that demonstrate the attractiveness of its education and research activities and the strength of its international cooperation as one of Europe's leading research universities. For instance, 12% of its lecturers and researchers are foreign nationals (ranking 2<sup>nd</sup> among French universities), and they often hold important responsibilities within the university (heads of research teams or degree programs...). Furthermore, 50% of research publications involve international collaborations.

### A founding member of the LERU and EUCOR international networks

- The LERU (League of European Research Universities) associates 22 leading researchintensive universities, among which Universities of Oxford and Cambridge, Imperial College London, Universiteit Leiden, Universitat de Barcelona, Ludwig-Maximilans-Universität München, etc. They all share a focus on research and high-quality education;
- EUCOR (Confédération Européenne des Universités du Rhin Supérieur) is a French-German-Swiss network created in 1989 associating the universities of Basel, Freiburg, Karlsruhe, Strasbourg and Haute-Alsace (100,000 students, 8,000 PhD students, 11,000 teaching and research staff) offering 16 bi- or tri-national degrees at Bachelors and Master levels. On its twentieth anniversary in 2009, a joint declaration was adopted to encourage student mobility, the implementation of the Bologna process in the Upper Rhine region, the promotion of transnational PhD programs, cooperation in research and joint representation on the international scene.

### Strong partnerships with two German universities of the Exzellenzinitiative

Among the 9 German universities distinguished by the *Exzellenzinitiative*, two are situated within one hour of the University of Strasbourg, thus constituting a "golden triangle" of academic excellence:

- Partnerships with the **Albert-Ludwigs-Universität Freiburg** covers research and teaching activities, with a specific focus on joint PhD programs especially in Biology and Soft Matter Science. Co-supervised PhD students are also underway in Chemistry, Life sciences and Medicine, Mathematics, Antiquity sciences, German studies and Law. In September 2010, the two universities signed a Letter of Intent to engage a new kind of partnership characterised by a more comprehensive approach, covering a wide spectrum of cooperation, a contribution to the respective status of excellence of both universities and its impetus to the development of science in the Upper Rhine region. Our LabEx\* projects propose to reinforce these activities through new joint research projects and Masters and PhD programs.
- Strong partnerships with the Karlsruhe Institute of Technology exist in Economics, Mathematics, Theoretical mechanics and Earth sciences, Chemistry and Nanosciences, for example. Two LabEx projects include KIT research teams as full-fledged partners, one on Materials and Nano-sciences and the other on the economic challenges of sustainability and creativity.

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These international partnerships will be essential in the framework of the "Initiative d'excellence" project of the University of Strasbourg, as developed in section 3 below.

### 2.2. APPLICATION TO THE ACTIONS OF THE PROGRAMME "INVESTISSEMENTS D'AVENIR"

The applications of the University of Strasbourg to the "Investissements d'avenir" calls for projects, together with its partners (National research organisations, Strasbourg University Hospital, the National University Library in Strasbourg, competitiveness clusters …), rely on an overall multidisciplinary strategy involving research, education, technology transfer and international attractiveness. The "Initiative d'excellence" project is the keystone on which the answers to the different calls depend in order to produce a dynamic effect on its "Excellence Perimeter" and beyond, on the university as a whole.

### 2.2.1. APPLICATIONS TO THE LABEX, EQUIPEX AND INFRASTRUCTURES CALLS

The thirteen LabEx projects presented in the "Investissements d'avenir" programme have been conceived as the core driving force for the university research strategy. Within the three academic domains, they associate most of the best research teams around cutting-edge research projects while also including ambitious teaching and technology transfer programs. They are furthermore supported by the projects submitted by the university in answer to the other calls of the "Investissements d'avenir", such as EquipEx and National infrastructures.

Sciences & Technologies - Overview on the "Investissements d'avenir" projects

Major	LabEx	Manager
Chemistry	CSC: Chemistry of Complex Systems	Jean-Marie Lehn
Materials	N3Lab: From Individual nano-objects to nano-structured materials and devices	Marc Drillon
Transversal	ISNG: New Generation of Scientific Instrumentation	Christelle Roy
Mathematics	IRMIA: Mathematics, Interactions and Applications	Thomas Delzant
Earth sciences	G-eau-thermie: Geothermal exploitation of aquifers	Jean Schmittbuhl

These five LabEx projects associate 14 of the best research units and the most advanced projects of the university within this domain. They also include a strong educational dimension, as with for instance the LabEx in Mathematics. This project proposes high-level graduate courses: Master classes are key features in the proposal and come from intensive

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collaborations with the Universities of Basel and Karlsruhe, in order to reinforce existing links between researchers and graduate students in the Upper Rhine region.

They are reinforced by **four EquipEx** projects (CRIC, UNION, 4GCG, iStep-FEGER) and **six participations in national platforms** (EQUIP@MESO, ROBOTEX, RESIF-CORE, FIT, EFG, MIND).

### Life Sciences & Health - Overview on the "Investissements d'avenir" projects

Major	LabEx	Manager
Biology	INRT: Integrative Biology - Nuclear dynamics, Regenerative and Translational medicine	Olivier Pourquié
Medicine	Medalis: Drug Discovery Center	Sylviane Muller
Genetics	NetRNA: Networks of Regulatory RNAs across kingdoms and dynamical responses to biotic and abiotic stresses	Eric Westhof
Medicine	HepGen: Functional genomics of Viral Hepatitis and liver disease	Thomas Baumert

These LabEx projects gather 11 research units and are reinforced by **seven EquipEx** projects (SysBioDis, CARMEN, METRICETI, TechMed, METACIB, Insectarium, CIRADT), **three infrastructure** projects (PHENOMIN, FRISBI, FR-OPENSCREEN) and **two participations in other national platforms** (INDIGEN, proFI).

Research teams in Health and in Engineering from the university, the national research organisations, the Strasbourg University Hospital and the IRCAD\* are associated in the IHU project on **Image Guided Minimally Invasive Hybrid Surgery**. Moreover, University of Strasbourg is strongly involved in the Alsace BioValley cluster, which will be a candidate to a future call to develop industrial platforms.

Here again, each LabEx has elaborated an innovative teaching dimension strongly linked to the research project. For instance, the LabEx project proposed by the IGBMC implicates its staff in a range of education and training activities, from teaching high-school pupils, to training students and postdoctoral fellows, to international advanced training for experienced research staff.

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### Social sciences and Humanities - Overview on the "Investissements d'avenir" projects

Major	LabEx	Manager
Economics	CSG: Creativity, Sustainability, Growth	Robin Cowan
Political Science, Law, and History	3ES: Strasbourg School of European Studies	Didier Georgakakis
Religious Sciences	RESO: Religions and Society: texts, norms and practices	Francis Messner
Arts	GREAM: Experimental Research Group on the Creative Musical Act	Pierre Michel

These LabEx projects gather 11 research units. In the field of economics, the laboratory BETA proposed a structured research and training programme on creativity and sustainability in collaboration with KIT (Karlsruhe) and HEC Montréal, and with a large interdisciplinary approach, including engineering, law and arts, around economics and management as the core disciplines. In addition, two "University degrees" in continuing education are delivered on Engineering of Innovative Projects and Intellectual Property Rights and Strategy. Strasbourg is one of the major places in Europe in this topic.

In the field of European studies, an interdisciplinary LabEx includes a resource portal putting documentary and databases at the disposition of the scientific community, policy makers and the general public. Thematic workshops associating senior researchers and PhD students are part of the innovative teaching through research plan. Research will also find its way into continuing education of top French and European civil servants through the association of the Ecole Nationale d'Administration which is a partner of this LabEx.

Finally the LabEx project in Religious sciences proposes the creation of an ambitious Graduate program in "Religious Law and Religious studies", with a particular focus on Law and Islamic studies, in order to offer a comprehensive range of courses.

All these projects are strongly interdisciplinary, have potential synergies between them and present opportunities build bridges with LabEx in natural sciences, in particular the LabEx project on creativity and sustainable development and the LabEx on European studies, given that industrial norms and regulations have an impact on applied research. **Three EquipEx** projects (CHARMED, RE3, ALFO) reinforce research infrastructures in this area.

### 2.2.2. THE SATT PROJECT

The Alsace SATT project will build on the experience and assets of the integrated Conectus Alsace structure to merge all services working in the field of technology and research transfer in the region, and to serve as the central instrument for research-based economic development.

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Its fundamental missions will be to create value for its shareholders (the two Alsatian universities, others Higher Education institutions and the national research organisations) and to participate actively in economic development by supporting start-ups and job creation. It will integrate the local technology transfer offices and set up strong partnerships with the regional incubator, the competitiveness clusters, and the technology transfer centres.

The SATT project will be closely articulated with the national research and technology transfer strategies and the "Regional Innovation Strategy" adopted in December 2009.

### 2.2.3. THE IHU PROJECT

The IHU Strasbourg will lead the next revolution of medical procedures to Image-Guided Minimally Invasive Hybrid Surgery (MIX-Surg). It will combine minimally invasive techniques to create optimal hybrid approaches for improved patient care. The IHU will then enhance hybrid approaches through cutting-edge research, develop the next generation of medical devices and train the physicians of the future. After proof of concept in abdominal diseases, the IHU will expand its scope in other medical disciplines. To achieve this goal the IHU will:

- build on a track record of revolutionizing surgery. IRCAD, leader of the project, is recognized worldwide as a preeminent center for laparoscopic surgical training; it also produces innovative research in minimally invasive surgery with a track record of multidisciplinary teams transferring technology through public-private collaboration. The University and Hospital of Strasbourg and National research organisations (CNRS, INRIA and INSERM) are associated with the project;
- construct a new infrastructure for patient care, research and technology transfer;
- attract renowned physicians and industry leaders;
- expand an ambitious translational R&D program: The IHU will bring together R&D labs with leaders in science, engineering and clinical practice. The focus of R&D will be on patient-specific computer assisted surgery, targeted therapies, robotics, and hybrid medical device;
- create a new training paradigm: Indeed, the evolution of surgery requires a paradigm shift in the training of physicians, engineers, and other healthcare workers;
- Invest in the local and national economy: the project is a part of the ambitious TechMed Campus program supported by the City of Strasbourg.

The investment in the IHU Strasbourg is expected to improve the practice of medicine, serve as a platform for healthcare innovation and technology transfer, and establish the presence of France in the international medical devices industry.

#### 2.3. EXCELLENCE PERIMETER, ENVIRONMENT, PROSPECTS AND ADDED VALUE

The University of Strasbourg will focus its resources on an "Excellence Perimeter", which will include research teams with international recognition in their field. It has decided not to

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define this "Excellence Perimeter" in disciplinary terms, because excellence is nearly by definition distributed across many different disciplines in a university whose identity is multidisciplinary and research driven. In addition, it is through interdisciplinary approaches and in a dynamic dialogue between disciplines that the frontiers of knowledge are pushed back in the most innovative ways.

The "Initiative d'excellence" project has been furthermore elaborated through a set of strategic instruments (see below section 3) aiming both at strengthening excellence within its perimeter and to promote fields that could generate a dynamic of excellence in the future. This justifies an approach allowing for an evolution of the "Excellence Perimeter" based on a continual process of high quality evaluation.

#### 2.3.1. EXCELLENCE INDICATORS AND EXCELLENCE PERIMETER IN 2010

Excellence defined in terms of research teams and not disciplines – Excellence in research is indeed present at the University of Strasbourg in all the three academic sectors defined above, as shown, among other indicators, by the evaluations by the AERES. Therefore, if the "Excellence Perimeter" must be selective so as to guarantee a maximum impact of the "Initiative d'excellence" and the best use of available resources, it can not be restricted to a few disciplines and must on the contrary be cross-cutting.

In this context, the "Excellence Perimeter" will include research teams whose expertise has been recognised at the international and national levels with currently-accepted indicators for research, education and technology transfer. These encompass:

- research production indicators: H-index, Impact factor, number of citations, number of peer-reviewed publications in major journals, of communications and chapters;
- academic recognitions and awards;
- attractiveness of degree courses;
- number of patents, spin-offs and licenses.

An initial perimeter defined in strong relation to the LabEx projects of the university – The precise set of indicators will be progressively defined and refined, so as to ensure their capacity to accurately reflect performance, while respecting specificities in each discipline. The initial "Excellence Perimeter" will be defined in relation to the research teams involved in the LabEx projects submitted by the University.

The applications to the LabEx call involve 33.5% of the global research staff on the campus (805 out of 2,400 permanent research staff)<sup>5</sup>. They involve 36 research units (out of 77) and associate 22% of all PhD students. It must be noted that this perimeter is more restrictive than the A or A+ research units designated by the AERES in 2008 (covering 50% of the permanent research staff of the university). These research units constitute not only the core of excellence in their domains, but they are also leaders of the most cutting edge projects in

<sup>&</sup>lt;sup>5</sup> This is a mean ratio for the whole set of LabEx. Most of them, such as the one in Chemistry, are more selective by choosing only A or A+ teams inside the research units, whatever their overall ranking.

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research and curriculum in the university. Their distribution across the three academic sectors also reinforces their ability to engender positive pull effects throughout the whole university.

The global contours of the initial perimeter will not be significantly modified by the result of the LabEx selection process, but the reports of the international jury will be closely studied so as to finalise the initial perimeter and take into account specific remarks and assessments.



OVERVIEW OF THE "EXCELLENCE PERIMETER"

#### 2.3.2. DYNAMICS FOR EXCELLENCE

Excellence as an evolving reality within the university – While present excellence is a key asset for the university, it should be seen as a perpetual challenge rather than a given set in stone. The history of the university bears witness to the fundamental evolutions of excellence, for example with the re-emergence of Chemistry in the 1960s to the highest international level. The university must strategically be prepared not only to reinforce existing fields of excellence but also to support emerging teams and promising young researchers to reach their potential of excellence.

Indeed, there is no clear and definitive dividing line between "excellent" and "not excellent" research teams. A more refined perspective is necessary to grasp the internal and interdisciplinary dynamics of research. Different situations must be distinguished in this respect, such as:

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- Excellent research teams which as a whole represent a significant critical mass in their domain, and which should be supported to remain at the highest international level;
- Excellent research teams which do not have yet the critical mass to gain international visibility and in which additional means could produce a breakthrough to internationally recognised excellence;
- Excellent emerging research teams (or individuals) should be encouraged and supported to develop their potential, particularly in new research fields at the intersection of existing disciplines or research fields.

In this respect, excellence in research is dynamic with both qualitative and quantitative dimensions. Each situation has to be analysed in its specificity with respect to its current achievements and future potential.

The University of Strasbourg, with its **Strategic Orientation Committee** will address these challenges in the framework of the preparation of its research and education strategies 2013-2017, which have begun in 2010. The curriculum blueprint was adopted in December 2010 (see section 2.2 above). The Research strategy is currently being elaborated by the Scientific Council of the university in coordination with the collegiums. It strives to precisely identify future challenges, particularly in terms of rejuvenation of research staff in strategic fields, and to organise a consultation on the future of disciplines present in Strasbourg, whether they be excellent, emergent or in need of revamping Such a prospective reflection has already been launched in Physics; it is foreseen to expand to other disciplines and academic sectors, most notably on the basis of the work done in the scope of the LabEx projects.

The "Initiative d'excellence" project is conceived as a key tool to foster excellence in all its diverse dimensions through:

- a restrictive definition of the "Excellence Perimeter", with at least 70% of funding allocated to teams within it, so as to ensure that resources go to the most innovative and dynamic research teams, thereby maximizing the impact of the "Initiative d'excellence" funding;
- a set of instruments open to all university staff, so as not to be cut off from innovative projects which do not fall into the existing international "Excellence Perimeter", in order to adjust to emerging research dynamics, particularly concerning promising young scholars who will carry the innovative projects of tomorrow. Financial means will be allocated upon internal calls for proposals opened to all research teams, funded by the remaining 30%;
- a legitimate, strong and reactive governance able to define strategic priorities, focus
  the bulk of the funding on the identified perimeter and also support emerging
  clusters of excellence. Applications will be reviewed by external and independent
  academic experts and final decision will be taken by the legitimate bodies of the
  university;
- an evolving "Excellence Perimeter", with the possibility of eviction and integration of research teams throughout time. The "Excellence Perimeter" will be revisited every two years by the Scientific Council of the university, relying on the advice of the

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collegiums and external academic expertise. It is expected that this evolutive dynamic will generate positive effects throughout the institution, by maintaining motivation of teams and developing multidisciplinary collaboration.

Furthermore, the University of Strasbourg will pay specific attention to the teaching impact of its "Initiative d'excellence" instruments, with the following four objectives in mind:

- the national and international attractiveness of its courses;
- the reinforcement of links between teaching and research;
- the development of new curricula and teaching innovations that promote multidisciplinary and individual projects;
- the improved employability of undergraduate and graduate students.

### 3. PROJECT AND PROSPECTS

### 3.1. BEYOND FRONTIERS ALONG FIVE STRATEGIC PRIORITIES

Through the "Initiative d'excellence" framework, the University of Strasbourg has the ambition to strengthen its position as an **attractive research-intensive university at the international level**, being both a reference in Europe in research and higher education and a main **actor of Franco-German cooperation** through close partnerships with neighbouring universities in the Upper Rhine region.

In order to achieve this ambition, the university will strive to transcend frontiers along **five strategic priorities**:

- Surpassing research frontiers through attractiveness and interdisciplinarity to develop excellence in research at the international level,
- Transcending education frontiers through excellence, innovation and outreach, to increase the attractiveness of curricula at national and international levels,
- Breaking down frontiers between the academic and economic worlds to position the university as a key socio-economic actor,
- Going beyond frontiers between sciences, arts and society to increase the sociocultural outreach of the university,
- **Crossing a new frontier in university management,** by relying on the foundation of the university in 2009 to help implement a strategic project for the future.

These priorities meet the challenges that the University of Strasbourg as a whole has to address in the next ten years. They are meant to exercise a strategic leverage effect on the "Excellence Perimeter" and a pull effect on the entire university by stimulating a strong dynamic of change through incentives and emulation. However, the governance set-up for the "Initiative d'excellence" will guarantee that the majority of funds will be concentrated on the "Excellence Perimeter", so as to ensure maximum leverage.

Each of these priorities has been specified in a set of **instruments** designed as a coherent and mutually reinforcing whole. These instruments will provide space for the continuing

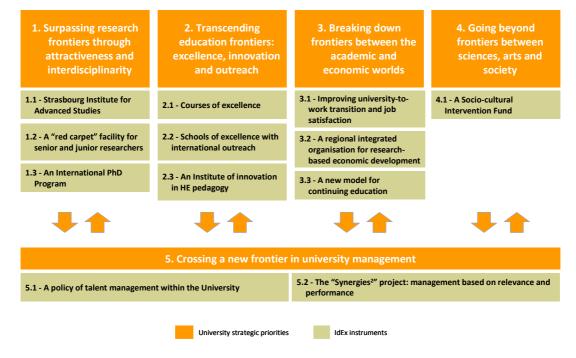
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emergence of projects, whereas a collection of projects designed from the outset would severely constrain the "Initiative d'excellence" strategic leverage. More precisely, such an approach secures three strategic issues of the framework as a whole:

- **Sustainability**: instruments remain relevant throughout time whereas projects would need revision and renewal well within the next decade;
- **Emulation**: instruments are focused on excellence but formally opened to all, thereby stimulating efforts and emulation across the university;
- **Responsiveness**: instruments allow for swift adaptation should exceptional needs or new structuring ideas arise, whereas a collection of projects would impede reactivity.

The table below presents the list of instruments related to the strategic priorities set up by the university in the "Initiative d'excellence" framework.



These instruments will be managed by regular internal calls for projects. The design of these calls will be kept transparent (the criteria of selection being public) and simple (no need for extensive hundred page submission forms ...).

The university's particular focus on **Franco-German cooperation** has been streamlined through most of the instruments, as for instance with:

- the Strasbourg Institute of Advanced Studies, which foresees strong collaborations with its counterpart at the University of Freiburg in Germany;
- the Red Carpet facility, with chairs and post-doc fellowships meant to attract a significant number of researchers from Germany;
- the Degrees or Schools of excellence, which will aim in particular at attracting the best students from France and Germany with a bilingual background such as AbiBac students (the Franco-German A Levels);

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- the socio-economic instruments, which will pay specific attention to German firms and German economy as a whole;
- the Sociocultural Intervention Fund, which will favour, among others, cooperations within the Upper Rhine region.

### 3.2. STRATEGIC PRIORITY N°1 - SURPASSING RESEARCH FRONTIERS THROUGH ATTRACTIVENESS AND INTERDISCIPLINARITY

### **Key objectives**

- To reinforce the scientific presence of the university at the international level;
- To develop attractiveness for high potential junior talents in order to prepare the replacement of leading scholars as they retire;
- To foster cross-disciplinary research and PhD programs.

### Main challenges

- To offer competitive salaries and working conditions and environments;
- To retain excellent researchers in the long term;
- To provide the conditions for the emergence of new fields of excellence within the multidisciplinary scope of the university;
- To foster interdisciplinary research without losing sight of the disciplinary structures of international scientific excellence.

#### **Instruments**

- 1. The "Strasbourg Institute for Advanced Studies" (SIAS)
- 2. The "red carpet" facility for Junior and Senior researchers
- 3. An International PhD Program of excellence

### 3.2.1. THE "STRASBOURG INSTITUTE FOR ADVANCED STUDIES" (SIAS)

Concept and purpose - The Institute for Advanced Studies of the University of Strasbourg will strive to encourage and support research in science and humanities at the highest level. Like the Institutes for Advanced Studies present in some foreign universities, our IAS will be a place of intellectual innovation by bringing together local and foreign scholars from diverse disciplines, so as to foster interactions among researchers and with the wider community of the university. It will seek to remove boundaries between scientific disciplines and thereby strive to encourage interdisciplinary research and help new multidisciplinary questions to emerge by relying on the disciplinary strengths within the university. The SIAS will fund interdisciplinary research projects involving highly innovative researchers from both the University of Strasbourg and foreign universities. Its members will conduct their research independently within a community of scientific excellence.

In this respect, the SIAS will aim in particular at:

- enhancing the attractiveness of the University of Strasbourg as a whole;

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- incubating groundbreaking research at the intersection of disciplines, possibly leading to the creation of new research teams within the university;
- facilitating the renewal of major talents on campus.

The institution will have a transforming impact on the research strategy of the University of Strasbourg as a whole and act as a catalyst accelerating new research orientations. Far from being an "ivory tower" within the university, it will be a privileged space for research providing opportunities to meet and to work together, share experiences and new ideas. Indeed it is expected that individual projects and interactions among researchers should lead to the building of learning communities and research clusters.

**Chairs and Fellows -** The aim for the IAS will be to fund up to 30 scholars at any given time:

- Of these about a dozen will be permanent Chair positions from the university and will initially consist of members selected by the University Presidency among its very top scholars in all fields. The Chair holders will be internationally recognised and thereby give the SIAS the necessary visibility to attract other researchers. They will have reduced teaching and administrative duties in order to focus on their research project. Moreover, post-doctoral fellowships are envisaged which will be closely associated with the research projects of the chairs;
- The rest will be fellowships attributed to junior and senior researchers. Fellows will be appointed for a fixed duration to undertake a specific project. They will typically be persons from outside Strasbourg, but not exclusively, who wish to carry out research on campus to benefit from the interaction with scholars on campus and/or use the available facilities (library, collections, instruments, etc). The duration of the fellowships will vary from a few months to 36 months, depending on the nature of the project.

In order to ensure the attractiveness of the SIAS, we will provide the Fellows with the working conditions and the academic environment necessary for the successful completion of their project:

- Specific funds for the organisation of seminars, invitations, travel and publications;
- The necessary space and administrative support to allow them to focus on research, with hosting capacity (offices, spaces for collective work, social functions, laboratory space) provided by the existing institutions such as the European Doctoral College, the MISHA and the various science institutes on the campus;
- A stimulating multidisciplinary environment, with the best researchers in Strasbourg to learn with and to learn from.

The SIAS is expected to contribute to the university as a whole, and not remain isolated. In this respect, it will encourage its Fellows to cooperate actively with other departments, researchers, and groups within the University of Strasbourg. Each Fellow will present his or her research in the framework of the SIAS interdisciplinary seminars, which will be held monthly. The Fellows will also be expected to provide a final written report on their activities at the end of their fellowship.

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**Governance -** The SIAS will be governed by an "Assembly" composed of the permanent Chair holders. The international visibility of the members of the Assembly will be a key tool for the attractiveness and success of the SIAS. The Assembly will then make propositions for filling chair positions as they become available through funding or retirement. The President of the University of Strasbourg will make the actual appointments based solely on the propositions of the Assembly.

The Assembly will also include the Vice-President for Research of the university as a permanent member to ensure that the SIAS will be well integrated into the research strategy of the university and its Scientific Council.

The selection of Fellows by the Assembly will be based on the highest international standards, with a peer review process and ad-hoc committees when necessary. All fellowships will be selected through international calls for projects, including a pre-selection, an invitation of the pre-selected researchers to present their research in a seminar in Strasbourg, and a final decision reached by the Assembly of the SIAS with the help of an international advisory board.

A close partnership with FRIAS (University of Freiburg, Germany) - A close partnership with the FRIAS has been jointly decided in September 2010, as part of a wider and ambitious agreement between the two universities. The ultimate goal of the partnership is to develop a common umbrella "brand" between the two institutions and elaborate a shared scientific strategy (in whole or in part), in order to optimise visibility and attractivity. The implementation of the partnership will be progressive following the establishment of the IAS of Strasbourg: joint seminars and summer schools, joint calls for projects appointing joint fellows and, possibly, joints academies. The Assembly will invite representatives of FRIAS to its meetings to discuss common strategy.

Other partnerships - The SIAS will develop special partnerships with the LabEx and other research and education entities within the University of Strasbourg. It will also be actively involved in different networks such as the "Réseau français des IAS" (RFIEA), the UBIAS (university-based IAS) and the EURIAS networks.

### 3.2.2. A "RED CARPET" FACILITY FOR JUNIOR AND SENIOR RESEARCHERS

Concept and purpose - The reinforcement and emergence of excellence in research at the University of Strasbourg requires both attracting junior talents and replacing senior scholars as they retire, by offering "welcoming packages" in a context of strong international competition. The so-called "red carpet" facility will be composed of chairs and post-doc fellowships meant to enable the university to offer internationally competitive salaries and thereby address one of the biggest obstacles to the international competitiveness of French universities. In order to be able not only to attract, but also to retain excellent researchers, specific and complementary tools are foreseen in the instrument "A policy of talent management within the university" (see section 3.6.1).

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**Chairs** - The chairs will be conceived as packages including salary, research funding, post-doc and/or PhD fellowships. The Chairs will be set up on a case by case basis, but two main populations are targeted:

- Junior Chairs, reserved for young promising scientists and conceived as a tenure track process;
- Senior Chairs, targeted towards established scholars, represent a responsive installation tool aiming towards integration into the permanent university staff.

Approximately two chairs will be awarded each year, one junior and one senior. This system complements an existing one, the "Gutenberg Chairs", funded by the regional executive. The university commits itself to the creation of "industrial chairs of excellence", funded in whole or in part by private sector partners. This will require an important effort in fundraising, in which the university Foundation will be the driving force (it has already acquired valuable experience in this field with a chair in Supramolecular chemistry).

**Post-doc fellowships -** The University of Strasbourg has a strategic interest in attracting high potential young researchers for post-doc positions after completion of their PhD. The mobility of researchers is arguably at its highest at this career stage; it is therefore crucial for the university to be competitive and attract the best researchers in their respective fields of excellence.

Post-doc positions are usually rather poorly funded in France, and insufficient in number despite the efforts of national research organisations or the ANR\*. However, the University of Strasbourg has awarded 14 such fellowships in 2009 for an annual budget of 500 k $\in$ . 20 such two to three year post-doc positions are planned in this instrument for talented young researchers with a PhD coming from another university with particular emphasis on foreign post-docs.

**Mentoring** - The university further commits itself to set up a mentoring process to accompany all researchers recruited through the "red carpet" facility in order to ensure their smooth and rapid integration in the university and the rapid development of their full research potential.

**Selection process -** The aim is to focus this funding capacity on the most promising research areas within the university, especially but not exclusively within in its "Excellence Perimeter". The Steering Committee of the "Investissements d'avenir" in Strasbourg will guarantee that funds will be primarily concentrated on the "Excellence Perimeter".

The selection of disciplines and themes for the calls for projects to be advertised by the university will be managed in a process similar to that of the present allocation of research funding within the university: 1. The Vice-President for Research issues an internal call to which all researchers can apply. 2. The applications are then submitted to the collegiums for advice and classification. 3. The ultimate decision is made by the Scientific Council of the university on the basis of a proposal submitted by the Steering Committee. This process guarantees a fair access to the competition within the university, openness to innovation in new emergent fields, the allocation of the main bulk of funds to research units within the

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"Excellence Perimeter", the relevancy of the research themes to achieving the goals of the research strategy of university, and a selection of the best projects within the scientific domain of each collegium.

Once the number and profile of chairs and post-docs is fixed, an international call will be issued and candidates will be selected based on reports by international experts and a defence of pre-selected researchers in an open seminar. A fast-track process will be exceptionally used to allow reactivity for retaining a promising talent or recruiting someone in a climate of particularly strong competition.

#### 3.2.3. AN INTERNATIONAL PHD PROGRAM OF EXCELLENCE

**Concept and purpose** - The ambition of the University of Strasbourg is to bring its PhD education programs to the very best international level. This challenge is twofold as it encompasses the necessity to attract the best PhD candidates in an increasingly globalised academic market, and to provide all its PhD candidates with the best learning environment and working conditions, in order to facilitate their integration in the national and global academic environment and their smooth access to the job market.

The "International PhD Program of excellence" is meant both to attract excellent foreign students in all the fields of research to the University of Strasbourg and to provide them with the necessary support to become part of the international research community. It is composed of an International PhD Fund and a PhD Support Fund.

**International PhD Fund** - The International PhD program first includes 40 PhD fellowships to be advertised for selected PhD projects originating from faculty members. Among these, a pool of fellowships will be reserved for the PhD projects proposed either by the Chairs and fellows of the Strasbourg Institute for Advanced Studies or to support of the installation of new faculty at the university, especially "red carpet" Chairs.

Conditions of application – the selected PhD projects must be part of a wider research project within the university supported by a faculty member acting as sponsor and supervisor, so as to ensure a dedicated and continuous supervision of the PhD candidate, an environment conducive to teamwork and a maximum added value for both the PhD candidate and the hosting research team.

Selection process – The pre-selected candidates will be invited to Strasbourg for an interview before an *ad hoc* formation of the Scientific Council (a panel of recognised national and international scientists). Alternatively video-conference interviews will be proposed for candidates who cannot afford the travel. The Scientific Council will select the students with the best credentials and potential to carry out the selected projects.

Even though no specific national quotas will be set, so as to keep the selection of PhD candidates focused on academic excellence only, the University will strive to attract a significant number of German applicants with its International PhD Program. This will be achieved through a particular effort to advertise the program in German reviews and

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universities and by mobilising existing cooperation frameworks with German Graduate Schools, such as joint PhD programs.

Working conditions - The selected PhD students will have priority access to the "European Doctoral College", which will provide them with supporting facilities such as a priority access to affordable accommodation.

**PhD Support Fund** - The International PhD program also encompasses a PhD Support Fund for the internationalization of PhD students in Strasbourg, providing both research funding to selected students and support to joint PhD Programs developed by faculty members with foreign universities.

Research funding for PhD students will to cover the costs of field work as well as research stays in universities and participation in conferences abroad. All PhD students benefitting from this fund will be expected to contribute to the organisation of a workshop once during their PhD. This initiative is meant to favour collective work and international contacts useful for obtaining a post-doctoral position and to improve access to the international job market.

*Funding joint PhD Programs* will boost the development of joint PhD programs with foreign universities. Extra grants will be launched for such projects in order to cover travel costs for supervisors and PhD students. The "European Doctoral College" will also play a role in this measure.

### 3.3. STRATEGIC PRIORITY N<sup>2</sup> - TRANSCENDING EDUCATION FRONTIERS: EXCELLENCE, INNOVATION AND OUTREACH

#### **Key objectives**

- To reinforce the visibility and attractiveness of the degrees offered by the university at Bachelor, Master and PhD levels, notably for high potential students;
- To position the university as a leader in innovation in digital pedagogic practices (developing distance learning and mixing e-learning and on-site training).

### Main challenges

- To combine a state-of-the-art disciplinary logic and a job-oriented approach so as to draw the best from both;
- To accelerate and facilitate the implementation of the curriculum blueprint for 2013-2017;
- To simplify the best education structures of the university to increase their visibility and attractiveness.

#### **Instruments**

- 1. Degrees of excellence
- 2. Schools of excellence with international outreach
- 3. An Institute for innovation in Higher Education pedagogy

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#### 3.3.1. DEGREES OF EXCELLENCE

The objective of the degrees of excellence is to attract and retain the most talented students by offering them top-notch working and learning conditions using the most innovative and flexible pedagogical methods. These courses will be typically pluridisciplinary in nature and/or international (bilingual teaching), where learning will largely occur through doing research.

Several departments have already successfully put into place such specific and demanding curricula which are highly attractive for local, national and international students. Some examples are:

- Double major bachelors in mathematics and physics, law and fine arts ...;
- The degrees preparing for competitive exams in the public sector, for example for secondary school teachers;
- A series of double-diploma programs at Bachelors or Masters level within the framework of the Franco-German University (UFA): for example in Law, Innovation management or in languages and intercultural careers;
- The Erasmus Mundus Masters in Business Law, European literary cultures or European politics.

The curriculum blueprint for 2013-2017 will facilitate the creation of similar degree programs by building on the successful examples and encouraging other disciplines to work in this direction. Such examples could also be adopted in a flexible way to existing degrees, for example by allowing for an accelerated completion of Bachelors degrees (by taking more than 30 ECTS per year) or through double masters programs spanning over 5 semesters.

General principles presiding over the degrees of excellence – The University of Strasbourg will use the "Initiative d'excellence" framework to promote such programs which will benefit from a "Degree of excellence" label.

To obtain the Degree of excellence label, departments must build their degree projects around research teams recognized for their excellence. Such degree programs can take several forms, for example:

- International degrees in which half of the coursework is accomplished in a foreign partner university, with a particular emphasis on Franco-German partnerships such as Karlsruhe or Freiburg, eventually with the support of the UFA;
- Double majors at a Bachelor's or Master's level (in 5 semesters) placing the emphasis on the complementarity between two disciplines to enrich the learning experience and provide students with a unique set of skills;
- Bachelor degrees with a strong research orientation in order to promote a precocious mastery of scientific methods and practice and thus prepare the brightest students for highly selective Master and PhD programs;
- Reinforce courses and provide innovation in degree courses preparing students for highly competitive professional exams.

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The "Degree of excellence" label of the University of Strasbourg will be attributed through a rigorous selection process based on an annual call for proposals. The aim is to incite departments to develop exciting new and innovative degree programs at Bachelor's and Master's levels. Funding will cover any additional costs and procedures linked to international aspects as well as other further costs covering reinforced curriculum and innovative practices (estimated at 20% per student on average). An additional envelope accompanying research projects will also be set aside to pay for internships in research teams for students with a reinforced curriculum in scientific research.

Student admissions to these programs will be based on their excellent academic record, their mastery of foreign languages (AbiBac for example) for international degrees and the number of students who can be admitted to these selective programs. Due to the additional costs and the additional workload for faculty, the goal will be to enrol about 5% of Bachelors students and 10% of Masters students in « Degree of excellence » programs by 2016.

**Additional support to the degrees of excellence** – To ensure the development, visibility and attractivity of these degree programs, the University of Strasbourg will:

- Incite faculty members participating in the elaboration of the curriculum of these
  degrees to share their experiences and innovative practices and work together to
  promote the their visibility in the academic community;
- Develop a proactive policy of information directed towards outstanding high school students in France, abroad and in local high schools;
- Assist departments in identifying the most talented students from the onset through standardised testing, assistance in analysing school records, the definition of standards ...;
- Rewarding outstanding performance by putting into place an "honour list" for the best students in Bachelors and Masters Degrees.

### 3.3.2. SCHOOLS OF EXCELLENCE WITH INTERNATIONAL OUTREACH

The objective of the "Schools of excellence" of the University of Strasbourg is to increase the visibility of the highest quality degree courses through an internal certification at the highest international standards. Such schools will need to be simultaneously oriented to training top level professionals, highly internationalised and backed up by top notch research teams. In general they will by positioned at a Masters level, but can integrate degree programs at the Bachelors level and maintain close ties with the Doctoral schools with the ultimate objective being the creation of integrated "Graduate Schools". In this respect, this instrument targets two types of "Schools of excellence", according to their specific academic project:

- "Professional Schools", for Bachelors and Master degrees;
- "Graduate Schools", which encompass Master and PhD programs.

The University of Strasbourg has departments with strong national and international recognition such as the School of Journalism or the Strasbourg School of Management, which

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is today among the top 20 schools of management in France. They could have a vocation to become "Professional Schools".

Other outstanding degree programs could integrate "Graduate Schools" in fields such as Intellectual property, innovation and economics, Religious studies, European politics (the Institute for Political Studies of Strasbourg ranks second among the eight prestigious French IEP's), but also Natural or Engineering sciences, Life Sciences and Health. A reflection is launched on a MD-PhD Program providing a dual medical and scientific degree. Such a program would greatly benefit from the internationally renowed research institutions in Strasbourg, which offer one of the best scientific environment for biomedical and translational research.

Some of these degree courses are double-diploma programs with partner universities in Germany; most are closely linked to LabEx projects and have planned such innovations in Masters and PhD programs.

The creation of these "Schools of excellence" will follow a blueprint set forth by the University of Strasbourg which will define criteria of eligibility and the distinguishing characteristics between "Professional schools" and "Graduate Schools". The labelling of these entities will proceed through a bottom-up approach through calls for proposals directed to the collegiums and departments of the university. Selection will be based on the following criteria:

- Visibility and the existence of a critical mass;
- The attractivity for outstanding students from France and abroad, and in particular Germany;
- The innovative nature of the teaching project and its interdisciplinary orientation;
- Strong links to excellent research teams and an integration of cutting-edge research into curricula;
- Job placement perspectives;
- The articulation to other departments of the university.

The implementation of this call for project will be structured in three phases: 1. strategic prospection by pre-selecting a few preliminary projects, 2. analysis of feasibility and potential, 3. implementation support and long term funding. The university will launch this selection process with the objective of setting up 3 to 5 Schools of excellence by 2015.

Subject to the authorisation by university authorities, departments already well advanced in the creation of a School of excellence will be allowed to implement and communicate on a common label of excellence during this process.

#### 3.3.3. AN INSTITUTE FOR INNOVATION IN HIGHER EDUCATION PEDAGOGY

**Purpose and context** – The creation of an Institute for innovation in Higher Education pedagogy aims to support the implementation of the curriculum blueprint for 2013-2017 by providing opportunities and support for lecturers to develop their teaching skills.

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Instead of applying recycling known methods and relying on traditional roles between lecturers and students, the goal of the Institute will be to develop and disseminate more interactive methods so as to not only transmit codified disciplinary knowledge, but also provide students with learning skills with more general applications. Time spent in classrooms should be increasingly used to prepare students for lifelong learning, and more emphasis should be put on linking theory to practice, to relational learning and improving transversal skills required in today's modern workplace.

The objective is to foster a new culture of teaching and learning which promotes a university less pent up in an "ivory tower" and more open to the outside world. This involves increasing interdisciplinary activities and approaches, often based on solving practical problems. Because knowledge becomes obsolete faster than it used to, lecturers must adapt and constantly acquire new skills, and the proposed Institute will seek to foster this adaptation. It will analyse **the student evaluations of all the university courses**, introduced in 2010, so as to help identify the priorities for quality improvement within the university as a whole.

A mix of approaches and a flexible implementation of teaching techniques will be developed and proposed to faculty by the Institute in order to further learning cultures focusing on collaboration, interdisciplinarity and participation. The Institute will act as a development tool in the long term to gradually change the educational culture within the university and improve the teaching-learning dynamic between students and lecturers. Providing spaces of communication and sharing of best practices, the Institute will provide faculty with new venues to exchange ideas and methods. This initiative should result in breaking the isolation that some lecturers can experience in their teaching activities.

Guidelines for the institute – For teaching and learning to be improved and adapted to the needs of the modern workplace, a proactive approach is required to bring about change. At the same time, this cannot be a top down standardized process, and must rely on collective learning and discussion to bring about a progressive and gradual transformation of mentalities and practice. To achieve this, the Institute for innovation in Higher Education pedagogy will be guided by three main principles:

- Research on questions linked to teaching and learning, such as planning curricula, self-assessment, quality evaluation, e-learning or innovation evaluation. Interested faculty could join an interdisciplinary team to work on research projects in these fields or document innovative or best practices to serve as resources for colleagues;
- **Sharing** experiences and resources. Spaces of discussion should be organised to discuss innovative ideas and experiments, to promote team-work and to gather useful resources for teaching and learning;
- **Support** for all lecturers and researchers involved in teaching and willing to develop their pedagogical skills, especially by using IC and multimedia technologies.

The appropriate structure is going to be built bottom-up. Lecturers' needs and questions will be considered as the foundations of the Institute and the first meetings will be aimed at defining training programmes according to their priorities. The structure will be run by a

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management committee composed of departments or collegiums representatives, representatives of the Presidency and project coordinators.

The different activities proposed will be varied and adapted to specific needs, both institutional and personal. Seminars, conferences, lectures, working groups, informal discussions as well as research projects and personal support are planned. Particular attention will be given to experiences from abroad, through seminars organised by foreign expert colleagues.

The Institute for innovation in Higher Education pedagogy will be part of the Education collegium. A mixed team of pedagogical and IT experts will be created to be the driving force of the Institute. They will collaborate closely with:

- the university service in charge new technologies usage, for pedagogical questions centred on e-learning and promoting the use of multimedia;
- the "Learning Centre", a new building which will be part of the "Opération Campus" program;
- German universities and particularly those within the EUCOR network.

### 3.4. STRATEGIC PRIORITY N<sup>3</sup> - BREAKING DOWN FRONTIERS BETWEEN THE ACADEMIC AND ECONOMIC WORLDS

#### **Key objectives**

- To help students prepare their access to a fulfilling professional life, whether it be in academia, in administration or the private sector;
- To contribute to improve perceptions in the private and the public sectors as to the value and skills of university graduates;
- To make the university a driving force for economic development and innovation;
- To maintain and reinforce the leading position of the university in continuing education in France.

#### Main challenges

- To mobilise economic partners through long-term "strategic partnerships" in order to contribute to improving the image of university graduates among private sector employers who have historically preferred graduates of the "grandes écoles";
- To spread best practices developed through the implementation of the "Success for Bachelor students" plan and the initiatives of the departments in terms of guidance and support for students;
- To draw on the experience and the dynamic developed by the Conectus Alsace network and the competitiveness clusters (particularly Alsace Biovalley) in order to set up a regional organisation for research-based economic development.

#### **Instruments**

- 1. Improving the university-to-work transition and job satisfaction
- 2. A regional integrated organisation for research-based economic development
- 3. A new model for continuing education

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#### 3.4.1. IMPROVING THE UNIVERSITY-TO-WORK TRANSITION AND JOB SATISFACTION

**Purpose and context** – Preparing students for a successful entry into the workplace in jobs corresponding to their qualifications is one of the central missions of the university and an integral dimension of its role in society and a responsibility to its graduates. Success in this domain is also essential to achieving the mission of the university as a key actor in economic development as well as contributing to its reputation among prospective students.

The University of Strasbourg, conscious of the fact that the transition to the workplace is a long-standing problem area in France, has devised a proactive approach to promote the professional success of its students, most notably with the implementation of the "Success for Bachelors students" plan. Among the policies and programs put into place by the university or several of its departments it is worth mentioning:

- The professional orientation and placement service "Espace Avenir";
- A policy of active orientation to help each Bachelors student in the development of a professional project;
- The integration of expectations of employers in the elaboration of degree curriculum (e.g. the ETENA project<sup>6</sup>);
- The publication of statistical indicators on job placement by degree by the Regional Observatory for Higher Education and Professional Integration (ORESIPE). This will provide students with information to facilitate their academic orientation and the selection of the most pertinent degree courses for their professional project.

In the framework of the "Initiative d'excellence", our university will reinforce these programs in an ambitious policy to support the professional success of our graduates.

**Proposal** – Beyond the orientation and personalised support that the university provides its students throughout their studies, the successful integration into an increasingly demanding job market will also require proactive measures to improve the perceptions of employers about the value of university degrees and the sets of skills which university graduates bring to any employer. The university and its different departments already cultivate close relationships with employers on a local, national and international level. By building on these relationships, an important mission of the University will consist in convincing employers of the added value and quality of university degree courses, from Bachelors level through to PhD's, by developing the following projects:

- To create improvement committees involving professionals from the private and public sectors for all Bachelor and Master degrees as well as for certificates delivered by the university in information systems and foreign languages (C2i, CLES). This will allow the university to better taylor training and curriculum to the requirements of the job market and facilitate the integration of professionals in the academic staff wherever relevant;

<sup>&</sup>lt;sup>6</sup> ETENA is a project put into place in Alsace by the the actors of professional training and innovation to promote and generalize entreprenneurship in degree courses.

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- To generalise job fairs at the university in all the departments and/or collegiums, with a specific focus on alumni participation (network building events with students, employers, alumni ...);
- To regularly organize highly visible conferences on themes pertaining to relations between universities and private firms, with presentations, debates and pannels involving academic staff and guests from the economic sector. Each conference will focus on a dimension of these relations: technology transfer, professional recognition of the PhD degree, research and development in the private sector, economic impact of higher education and research, etc.;
- To set up a certificate for professional skills acquired by the students in the course of their studies and in their professional life beyond their disciplinary specialisation. This system will help students to prepare their professional project throughout their course of study and contribute to making the potential contributions of university graduates more visible to employers (job experience, interpersonal skills, communication skills, adaptability). This policy will complete a national frame of reference promoting the professional skills of university graduates.

**Evaluation of costs** – These commitments require a concerted effort of outreach towards economic actors and will therefore necessitate an increase in human resources and general expenditures in order to:

- Increase the capacity of departments and collegiums to interact with employers, which will be put into practice through the hiring of an expert in relations with German employers (identifying job fairs, key partners, intensifying exchanges with Franco-German business associations...);
- Increase the capacity of the central administrative services in their support and expertise functions for departments and collegiums.

### 3.4.2. A REGIONAL INTEGRATED ORGANISATION FOR RESEARCH-BASED ECONOMIC DEVELOPMENT

The integrated organisation for research-based economic development in Alsace intends to bring together technology transfer, incubation, competiveness clusters and technical centres under a single strategic process, thus providing the University of Strasbourg, as well as regional and local authorities with a shared and performing tool for stimulating research-based economic development in Alsace and beyond. By devising a common strategy, pooling resources and serving as a one-stop-shop for industrial actors, it is meant to develop a limited number of large, transversal and ambitious research-based innovation projects, having a durable structuring role for the economic basin.

**Context** – Regional structures for research-based economic development are essential elements of competitiveness in the knowledge-based economy. In France, some structures derive from the local implementation of State-run programs, such as competitiveness clusters, while others stem from local and regional initiatives (Technological tranfer centres, industrial clusters ...). The unintended result is a highly fragmented and complicated

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environment for research-based economic development. This results in important challenges for both regional policy makers and the university, in developing and implementing a coherent policy at the regional level, and provides industrial actors with limited visibility.

In this context, the Alsace region is however a reference in France as it has achieved a remarkable level of integration within its innovation ecosystem thanks to a strong collaboration between local actors and regional government.

**Instrument** – The University of Strasbourg and its partners intend to build on these positive results by establishing a coherent and consolidated organisation for the actors in Alsace involved in the value chain of research-based economic development. The project is meant to draw on the high level of cooperation already in place to take an important step forward and federate all local actors within a common organisation conceived as:

- A "strategic consortium" ensuring a coherent strategy and the concentration of available funds for research-based economic development on a limited number of promising, large, structuring and collaborative projects. By integrating the University of Strasbourg and its partners, regional government and industry representatives in its governance, this consortium will provide Alsace with a modern tool for piloting research-based economic development policies well integrated in the "Regional Innovation Strategy";
- A pool of shared resources for support functions guaranteeing an efficient use of public and private investment, by pooling support functions: economic intelligence, legal expertise, financial management, communication, IS, project follow-up ...;
- A one-stop-shop offering a unique, dedicated and visible contact point to economic actors implicated in public-research related innovation.

The project aims at increasing the quantity (achieving more) and quality (performing more efficiently) of local and national research-based innovation projects by consolidating existing - and considerable - financial resources of participating actors (over 5 M€ in annual operating budgets, funded primarily by regional government and local authorities). The essential missions will consist in identifying, launching and developing a limited number of large structuring projects similar to those successfully implemented by the competitiveness cluster Alsace Biovalley. The first projects already identified are centred on Life Sciences and Health, with others in the pipes in other industries such as energy, Information systems or Image processing. The initial projects are:

- a hub for translational medicine, from "bench to bed": this program is based on a molecular imaging centre (about 60 M€ investment) currently developed through a consortium uniting the university along with the University Hospital, Alsace Biovalley and leading private partners such as GE HealthCare, Roche and Novartis. The program capitalises on the excellence of research in Biology, Chemistry and Physics at the university and aims at enlarging the gateway for public research capabilities in industry, to contribute to shaping and managing regulatory preclinical and clinical research programs;

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- the TechMed Campus is a project supported by the City of Strasbourg. Deployed over 2 acres of brown-site land within the perimeter of the University Hospital, the Campus will be ideally located in downtown Strasbourg, beside the site of the IHU project. It will provide industries and academics with platforms dedicated to the development, prototyping and testing of innovations in the field of minimally invasive surgery, biomaterials and implants.

For a first phase of deployment key structures have already shown interest in joining the project:

- the SATT Alsace for contracts, proof of concept, intellectual property, licensing, research-based training;
- the regional start-up incubator SEMIA;
- competitiveness clusters and major industrial actors or regional company clusters;
- technology transfer and pre-industrialization centres.

**Planning** – This project requires a strong long term commitment and gradual implementation involving:

- joint workshops on the definition of a common strategy and the identification of strategic projects;
- legal expertise to identify the most appropriate legal form and governance structures;
- gradual integration of support functions beginning with economic intelligence, legal expertise, communication, moving on to financial management, project follow-up.

The first innovation projects as well as the first pooling of support functions are expected to be launched by early 2013. Up to five large scale innovation projects are foreseen in the first ten years of existence.

#### 3.4.3. A NEW MODEL FOR CONTINUING EDUCATION

**Purpose and context** – The legal, social and technological context of continuing education has undergone sweeping changes over the last few years in France. With their interdisciplinary capacity and their research focus, universities are well positioned to play an increasing role as innovative actors in this field. The University of Strasbourg intends to draw on its leading position in the market of continuing education to promote a new model and bring closer the academic world and the public and private sectors at the national and international levels.

**Proposition** – The new model for continuing education currently being elaborated by the University of Strasbourg seeks to meet increasing social expectations and fully exploit the new legal means and structures made possible by recent reforms. It relies on short, qualifying and flexible training modules, which will allow students to flexibly accumulate new skills over time. Certification will be registered on a "**Pass'Compétences**", leading to a full-fledged university degree if necessary criteria are met (see paragraph below). It will also rely on state-of-the-art information technologies such as e-learning platforms and **blended learning** facilities with adapted working spaces.

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In contrast to the character of formal lecture halls and classrooms, modern learning space design seeks to provide free will of access and interaction with peers. From a physical point of observation, these places are increasingly conceived as comfortable, flexible spaces in which groups can act together and team up. Successful integration of technology and physical design into these kinds of spaces requires an understanding of emerging technology interfaces and new aim approaches.

The Pass'Compétences is a document specifying the required training modules for the obtention of a degree. The courses will be structured in short training modules covering specific know-hows, equivalent to a certain number of credits as in more traditional degree courses. The students will thereby be able to register either for a whole degree or only for a few training modules, but maintain the possibility to complete their degree later on with additional coursework or a validation of professional experience.

The Pass'Compétences will ensure the flexibility of continuing education courses, thereby meeting the needs of people unable to go to university full-time. This will facilitate the management of now mandatory job-training requirements by employers and optimize the continuing education business model of the University of Strasbourg.

This new model for continuing education will be set up over the two next years in close association with departments and services within the university and its public and private partners.

### 3.5. STRATEGIC PRIORITY N<sup>4</sup> - GOING BEYOND FRONTIERS BETWEEN SCIENCES, ARTS AND SOCIETY

#### **Key objectives**

- To develop the international attractiveness of the university by improving the quality of life on the campus and the visibility of its cultural activities;
- To make the university a socio-political actor involved in diffusing scientific culture as well as contributing to European public debates.

#### Main challenges

The University of Strasbourg has one of the highest proportions of foreign students among French universities, which is both an asset and a responsibility in terms of social and cultural integration. The university has the ambition to develop its international attractiveness as well as its capacity to integrate foreign students in campus life by building on its key assets:

- A geographic location at the heart of Europe The location of Strasbourg at the Franco-German border, close to Switzerland but also to Luxembourg, Belgium, the Netherlands, Austria and Italy, is a major asset which the university will seek to fully exploit by intensifying relationships with neighbouring universities and to position itself as an international centre of student cultural exchanges;
- An urban campus in the heart of the city The University of Strasbourg, whose community represents nearly 10% of the population of the greater Strasbourg area, is

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an essential component of the city and the region as a whole. Its location in the vibrant city centre is also a major asset for its national and international attractiveness. In this context, the university has both a responsibility and a strong interest to develop its relations with its partners in the city environment.

#### 3.5.1. A SOCIO-CULTURAL INTERVENTION FUND

The reinforcement of attractiveness by promoting highly visible cultural and social activities is built around three principles:

- To empower students as actors of the social and cultural life of the university. Specific attention will be paid to the integration of foreign students in an effort to harness the richness and talents of a such a diverse student body as a means to improve the quality of life on campus;
- To enhance the role of alumni in the socio-cultural animation of the campus. Through their networking potential, alumni can contribute to events and strengthen the influence and the development of the university, particularly through their involvement in the Foundation of University of Strasbourg;
- To strengthen the social and cultural visibility and attractiveness of the university at the international level, in keeping with its long-standing humanist tradition and European identity.

The University of Strasbourg will create a socio-cultural intervention fund to support specific actions with international visibility and outreach such as major student creations in the field of the performing arts, an international Artist-in-residence program, an annual international student Festival and regular thematic conferences on issues pertaining to the European political agenda. This Fund will rely on a systematic matching funds approach with the university's public and private partners, such as local authorities and cultural institutions.

A support for a few major student creations in the field of performing arts (concerts, theater, dance and/or public performances...) with a view to contribute to the cultural life both on the campus and at the regional, national and international levels, as each selected project will be expected to prepare an ambitious, possibly European, tour program. Collaborations with professional artists and local cultural institutions (Strasbourg schools of arts, Théâtre National de Strasbourg, Opéra du Rhin...) will also be a prerequisite for funding.

An international Artist-in-residence program – International artists from all artistic disciplines will be invited for one to three months. They will be provide with facilities and access to the academic staff and students and participate in conferences and interdisciplinary workshops. This program is meant to enhance the access of students to contemporary art creation and innovative forms of expression, and strengthen the existing partnerships between the university and the surrounding cultural actors and institutions. Each residency will be structured around a scientific program around the work of the artist and an artistic program associating students with the creation of a work of art which could be eventually be bestowed to the university.

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The University of Strasbourg has already acquired significant experience in this field, for instance with the invitation of Michael Haneke in 2009. Each project will have to demonstrate its artistic ambition as well as its added-value for the university and its students. Collaborations and co-funding by local cultural institutions will also be required, so as to ensure a broader impact and contribute to strengthening local and regional partnerships.

An international festival for student art creations – The university will create an annual week long international event gathering the best European student creations in a specific artistic field. The festival will be based on an international call for projects, and selection will be carried out by a jury composed of internationally recognised artists and local faculty. Several universities in France and in Europe have developed similar projects, and the University of Strasbourg will ensure that its annual project will be complementary and innovative. In 2008 it co-organised the Rhenalia festival the framework of EUCOR, the Franco-German academic network of the upper Rhine region. The Strasbourg project will draw on the experience and the visibility of existing regional festivals such as Ososphère on digital arts, organised every year by La Laiterie/Artefact.

Thematic conferences on issues pertaining to the European political agenda – The University of Strasbourg plans to organise conferences opened to the public around the main debates and scientific controversies of the European political debate (GMOs, nanotechnologies, growth and sustainable development, agricultural practices and policies, economic and monetary policies, the European social agenda, etc...). Held during the monthly plenary sessions of the European Parliament in Strasbourg, their objective is both to contribute to the diffusion of scientific culture and to participate in the development of an informed and critical European public space. The presence in Strasbourg every month of members of the European Parliament as well as journalists from all over Europe and private and NGO actors is a key asset for this project. These conferences could be organised jointly with the European Science Foundation and European media like Arte TV, based in Strasbourg.

### 3.6. STRATEGIC PRIORITY N<sup>5</sup> - CROSSING A NEW FRONTIER IN UNIVERSITY MANAGEMENT

#### **Key objectives**

- To improve the reactive capacity of the university in order be better equipped for increasing national and international competition in teaching and research;
- To secure the replacement of researchers and lecturers as they retire, especially leading scholars with international renown;
- To reinforce the quality of administrative support for researchers, lecturers and students;
- To evaluate the contribution and the impact of university activities on its socioeconomic environment and improve the relevance and impact of its response to societal needs, be they educational, cultural or technological.

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#### Main challenges

- To set up a dynamic and differentiated talent management policy attuned to the desires, talents and capacities of each staff member;
- To combat the phenomenon of isolation experienced by some researchers and lecturers by offering improved guidance and support;
- To strengthen synergies between departments, by giving increased responsibilities to the collegiums and/or reduce the number of departments, when justified;
- To simplify the management and administrative processes of the university, by reinforcing management based on the relevance and performance.

#### **Instruments**

- 1. A policy of talent management within the University
- 2. The "Synergies2" project: management based on relevance and performance

#### 3.6.1. A POLICY OF "TALENT MANAGEMENT" WITHIN THE UNIVERSITY

In a modern university, all faculty members should be allowed to exercise their talents in the different aspects of their profession such as research, innovation in teaching, administrative responsabilities or the dissemination of science or knowledge transfer. The university therefore has a responsability to implement a dynamic and differentiated management of human ressources in order to allow aspirations and talents in particular areas to express themselves. This is integral to maintaining a high level of motivation, job satisfaction and creativity, and therefore an essential ingredient to the vitality of the university. Improvement in this domain, both at the time of hiring and throughout the careers of faculty members will require putting into place a series of new tools and procedures as well as building upon those that are already in use.

Indeed, the university has already put into place a certain number of policies which are part of a proactive management of talents, most notably:

- An ambitious policy of reducing the courseload of newly appointed lecturers (Maîtres de Conférences) to allow them to have time for research and improve the quality of their lectures;
- An evaluation of professional activities by a national disciplinary committee to allocate Scientific Excellence bonuses.

The crucial moment of faculty hiring – Despite some recent reforms in the French system, the legal framework governing recrutment procedure of a lecturer or a professor, his or her professional status and uniform national pay scales, imposes constraints which can hamper reactivity, for example in the case of a position of strategic importance to the university. In order to become more reactive in such cases, two procedures will be mobilised:

- The system of Chairs presented in section 3.2.2 which will be implemented in the perspective of tenure track for Junior Chairs and as a trial period or relay for Senior Chairs before engaging legally defined recruitment procedures for full professorship;

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For the recruitment of full professors at the highest international level an innovative procedure will be put into place to attract the best talents through an international campaign of targeted advertisement of the position, the organisation of seminars where candidates pre-selected by the recrutement commission will present their work and finally, through the posibility to negociate the working conditions of candidates the university wishes to hire.

Career development of faculty – Our goal is that each faculty member of the university has the best possible chances to attain the highest possible status. This requires putting into place policies which will allow each faculty member to develop his or her talents in a variety of capacities – teaching, research, administrative responsibilities, etc. This will imply more rigourous evaluation, career planning and support, training, and recognising and valuing achievements.

**Improved individual evaluation** – Recent national reforms have set forth the obligation to evaluate all university faculty every four years at a national level. These procedures will likely begin in the near future but have as yet to be specifically defined. At the level of the university, a group of senior faculty members with extensive experience in evaluation have proposed specific measures tailored to our own needs:

- As the national procedure will likely be centred on research activity, other forms of faculty implication at the university, and above all in teaching will be locally evaluated. The university will put into place an ad hoc structure, with members coming from the existing councils to evaluate such activities based on intial evaluations emanating from departments;
- Until now, evaluation of research activities of individual faculty members is done in a piecemeal way when faculty members apply for "Excellence in science" bonuses. The university would like to put into place a more elaborate and systematic system based on best practices at an international level. As such, if the national evaluation scheme is delayed or never takes shape, the University of Strasbourg will take the intiative to create, alongside other universities with similar objectives, a systematic evaluation system for individual faculty members. The first contacts with other French universities have shown that such a project is feasable.

**Career planning and support** – This individual evaluation will be a precious source of information to assist a personalised approach to career planning by the Human resources service, particularly at key junctures in academic careers. Among other measures, it is worth mentioning:

- The designation of a "mentor" to guide the successful integration of newly appointed lecturers;
- The preparing phase for an application to habilitations to supervise research (HDR)\* and to professorships often requires specific guidance and support. The university will see to it that lecturers obtain their HDR within the average timeframe of their discipline. In case of delay, an interview will be proposed which could lead to a

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contractual agreement with the university foreseeing for instance a reduction of courseload to help finalise a HDR thesis or finish a knowledge transfer project;

- For university professors, the key junctures in their careers will be anticipated on the basis of the individual quadriennal assessment and at least one interview will be proposed covering all dimensions of their activity (research, teaching, administrative responsibilities, temporary international mobility ...);
- Particular attention will need to be paid to faculty members who have exercised particularly time consuming responsibilities. Beyond possible sabbatical semesters to help return to a high level of research activity they will be offered individualised support to help them adjust to the new perimeters of their activity.

#### An innovative training policy -

Training in management – Strong teaching and research competences are not necessarily enough to meet the needs of management responsibilities for collective activities within a modern university. The objective is to professionalise the management of the university at all levels, most notably on finance and human resources management, and to foster the emergence of a common culture of university management. The University of Strasbourg intends in this respect to develop the "management course" it set up in 2009, which targets faculty, administrative staff and students elected to the university governance councils as well as heads of departments and research teams.

Support for pedagogic innovation – The faculty will also be encouraged to participate in the activities of the Institute for innovation in Higher Education pedagogy (see section 3.3.3) to develop new teaching practices and the use of blended learning approaches.

**Recognising and rewarding achievement** – A dynamic policy of salary supplements will be implemented by the University of Strasbourg. This can be achieved within the civil servant status, but private contractual bases will also be envisaged accompanied with career evolution perspectives.

Simple mechanisms will be proposed to faculty members, at certain critical periods of their career, to focus on research through for instance at least one "sabbatical" semester every six years. More generally, rewarding achievements in research, knowledge transfer, pedagogic innovation and or administrative responsibilities (heads of departments, directors of degree programs or research teams, etc...) will help maintain motivation through a relevant and flexible use of reductions of courseload, salary supplements and symbolic recognition.

This project will be based on a facility fund for talent management covering the costs of salary supplements and courseload reductions without reducing the quantity or the quality of courses offered.

### 3.6.2. THE "SYNERGIES<sup>2</sup>" PROJECT: MANAGEMENT BASED ON RELEVANCE AND PERFORMANCE

The "Synergies2" project seeks to reap all possible benefits deriving from the merger of the university in 2009 in order to foster excellence in research and education. It relies on the

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implementation of a management policy based on relevance and performance, in order to optimise the allocation of resources in line with its strategic objectives. It is not primarily an instrument to cut costs, but rather seeks to redeploy resources in areas where they produce the greatest positive impact for students and faculty, and make sure that the means are directed to the best initiatives, by simplifying the administrative structure of the university and providing matching funds to support innovative projects.

In a nutshell, the strategy is based on incitement tools by awarding matching funds to reward efforts to promote relevance and performance within the university. This initiative will seek to streamline often cumbersome administrative processes and put into place a regular assessment of the university relevance and performance with regards to societal needs. Its implementation will be progressive and will draw in large part on the initiatives and lessons learned in the framework of the "Investissements d'avenir" projects, notably with the LabEx dynamics.

The continuous improvement of the management system will require securing the reliability of the management IS, as outlined in the IS master plan of the university, but also the fine tuning of the internal model for allocating funds and defining long-term objectives and means for all departments and research teams of the university. This continuous effort will lead to a better understanding of the activities and specificities of the departments, based on an evaluation of their relevance and performance, an improved capacity for forward looking strategic planning and the long-term definition of the contributions of each department and research team to the overall objectives of the university.

A matching fund for management based on relevance and performance – This fund is the key element of the "Synergies<sup>2</sup>" project. It aims at supporting quality management and efficiency. Its philosophy is based on inciting departments and research teams to adhere more closely to the relevance and performance approach, and it will be mobilised in the framework of the management dialogue between the university and its departments.

The University of Strasbourg has already put into place internal incitement tools, most notably to minimize the environmental impact and overhead costs of departments (reprography, heating costs ...). The "Synergies<sup>2</sup>" project aims at strengthening and extending these tools in order to facilitate the generation of internal resources through savings (by merging and streamlining internal organisations and optimising expenditures), and to support highly innovative initiatives to improve working conditions of staff and faculty members and the overall quality of education.

The structuring projects, for instance those involving a merger of departments or a significant strengthening of a collegium, will take place in a framework defined by the Administration Council of the university. The departments and the collegiums will be entirely responsible for the identification and implementation of mergers or mutualisation projects, as well as the elaboration of innovative initiatives supported by the fund.

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The Synergies<sup>2</sup> project : A permanent effort for relevance and performance Mergers of collegiums and/or departments to increase their potential Creation of new courses in relation to the latest developments in research and prospective socio-economic needs and visibility Mutualisation of support functions and/or Specific support and initiatives for lectures between masters to reduce improving the studying conditions and costs while preserving the specialties success of students Development of internally generated Improving the working conditions of resources (continuing education, young lecturers and researchers international courses, expertise (mentoring programs, facilities...) partnerships with public and private actors outside the university...)

**Complementary actions** – In the framework of the "Synergies<sup>2</sup>" project, the university commits itself to implement complementary actions in order to facilitate the introduction of management by relevance and performance.

Simplification of management processes within the university - A key component of the university relevance and performance management policy is the simplification of administrative processes in accounting, human resources, building management, logistics, tendering and IT. This will help harmonise procedures, reduce transaction costs and develop a common administrative culture within the university based on efficiency.

A regular assessment of the relevance and performance of the university - The university is a central actor in the social, cultural and economic system of a territory – a role which is even more crucial in the context of a knowledge-based economy. A university is indeed a producer of essential public goods, in particular education, culture, science and technology.

In this context, the university regularly assesses its relevance for the contemporary economic and social system. At least two dimensions will be capital:

- the economic "footprint" of the university in the short and medium terms as an economic agent (large employer of high-skilled employees), and as a knowledge developer and diffuser (technology transfer, value creation, start-ups ...);
- the reputation of the university with key external stakeholders (local authorities, population, cultural institutions, economic actors, other academics ...), including the degree of recognition of its activities as legitimate publicly funded activities.

These assessments will be conducted independently for the key missions of the university.

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#### 4. GOVERNANCE, ORGANISATION AND MANAGEMENT

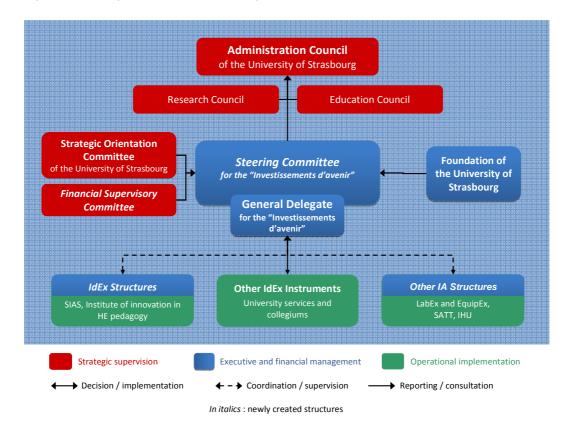
#### 4.1. OBJECTIVES AND GUIDELINES

Governance of the "Initiative d'excellence" in Strasbourg aims to manage, coordinate and evaluate the actions and means of the Initiative as a whole, in line with "Investissements d'avenir" objectives and the university's strategy. It will ensure equity in the endowment, simplicity and subsidiary in the application process, significant concentration of funds on the "Excellence Perimeter" and transparency of decisions according to the legal procedures and guidelines in vigour within the university.

#### 4.2. GOVERNANCE ORGANISATION

The governance of the "Initiative d'excellence" in Strasbourg will be structured around a limited number of supervisory and executive bodies. Three governance functions can be distinguished: strategic supervision, management and coordination, operational implementation.

The diagram below gives an overview of governance structures:



**Strategic supervision** – The strategic supervision of the "Investissements d'avenir", and in particular the "Initiative d'excellence", will be ensured by the two leading organs of the university: the Administration Council and the Strategic Orientation Committee.

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The **Administration Council** of the University of Strasbourg holds the ultimate responsibility for all the "Investissements d'avenir" programs selected in Strasbourg. It votes the budget and adopts the annual activity report on the "Investissement d'avenir" programs proposed by the Steering Committee. It will also be responsible for guaranteeing the coherence of IdEx\* activities with the overall strategy of the University and the concentration of IdEx funds on the "Excellence Perimeter".

The Administration Council is advised by the **Strategic Orientation Committee** of the university on all scientific issues. Its role is to propose or to assess the strategic orientations of the missions of the university. It is composed of external personalities (with the exception of Jean-Marie Lehn, a Strasbourg Nobel Prize winner in Chemistry) who are either world-class academics or leaders from the private sector. Its members are proposed by the President and appointed by the Administration Council. The Strategic Orientation Committee includes a significant number of high-profile German academics, reflecting the importance accorded to cross-border cooperation in the overall strategy of the University of Strasbourg.

In terms of financial oversight, the University will commission an annual **external audit** in order to control the quality of the financial management of the Foundation of the university. Its results will be analysed by an *ad hoc* **Financial Supervisory Committee**, created specifically for the purposes of the financial oversight of "Investissements d'avenir" programs. It will submit recommendations to the Steering Committee. The Financial Supervisory Committee, staffed by a handful of selected top financial and banking executives, will also be responsible for the analysis of the external audits conducted on the accounts of the university as a whole.

**Management and coordination** – The management of the "Initiative d'excellence" as well as the coordination of all the "Investissements d'avenir" projects in Strasbourg will be entrusted to a **Steering Committee** under the responsibility of the Administration Council of the university. A convention will be set up to precisely define its powers and ensure the greatest coherence and responsiveness in the management of the "Initiative d'excellence". Its responsibilities will include:

- the definition of the rules governing the functioning and the selection criteria of IdEx instruments;
- the elaboration of the framework and the timing of the internal calls for projects;
- the definition and the oversight of specific agreements with the beneficiaries of IdEx funding within the university, specifying the delegated objectives, actions, means and evaluation procedures;
- the assessment of the scientific and economic impact of the IdEx.

The Steering Committee will report to the Administration Council, which holds the final decision in all fields within its sphere of competence, including the evolution of the "Excellence Perimeter" and any decisions having an impact on the structures of the university. The Steering Committee will work with the Research Council and the Education Council, which hold delegated powers from the Administration Council. All proposals for

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the calls for projects will be submitted to and ranked by the collegiums, after consulting the departments of the university. Evaluations will be based on systematic recourse to external academic expertise for a critical assessment of the proposed project.

According to the principle of subsidiary, the structures set up in the framework of the "Initiative d'excellence" will enjoy a large degree of autonomy to define and implement their respective projects under the responsibility of the Steering Committee. They have all defined internal governance procedures and will benefit from executive powers in order to keep administrative overhead to a minimum.

For all the other instruments of the "Initiative d'excellence", which will not require a specific structure for their implementation, the Steering Committee will work with the administrative services of the university and take all decisions on the thematic orientation of the internal calls for projects, upon delegation of the Administration Council. In particular, it will have an explicit mandate to concentrate funding on the "Excellence Perimeter".

The Steering Committee will be composed of 10 to 15 members and will include highly qualified academics from the three disciplinary sectors defined above (section 2.1). The members will be proposed by the President of the university and confirmed by the Administration Council. The institutional members of the Steering Committee will be representatives of the IdEx partners – the university, the CNRS and the INSERM – and of the university hospital and the university Foundation. The representatives of the university are the President, the first Vice-President and the three Vice-Presidents for Research, Education and Industrial partnerships. It will be chaired by a **General Delegate** for "Investissements d'avenir", who will report directly to the President of the University. This position has already been established to coordinate the preparation of the "Investissements d'avenir" projects in Strasbourg.

Financial management – The Foundation of the University of Strasbourg is a subsidiary of the university and will be in charge of the financial management of all "Investissements d'avenir" funds, with the exception of the SATT, which will be a separate legal entity responsible for its own financial management. The Foundation will coordinate fund raising activities related to the "Investissements d'avenir", and in particular the LabEx projects.

The concentration of financial responsibilities in the Foundation will facilitate a highly professional management of finances and the coherence and mutualisation of fund raising initiatives, thereby ensuring the most efficient use and implementation of fundraising initiatives for the University of Strasbourg as a whole. Its private legal status will provide the necessary flexibility and adaptability in the management of the "Initiative d'excellence" endowment.

The Foundation will ensure the traceability and accountability of financial flows by setting up a specific budget line in its accounts and will provide the Steering Committee with annual financial reports in preparation for reporting to the ANR. An annual external independent financial audit will ascertain the quality of financial management.

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**Operational implementation** – The General Delegate for the "Investissements d'avenir" will hold the overall responsibility to coordinate and steer the operational implementation of the "Initiative d'excellence" instruments. In this capacity, he will chair the Steering Committee and be in charge of the relationships with the partners of the project: the academic entities or partners from the public, social and private sectors.

The General Delegate will have a similar role in relation to the coordinators and the governance structures of the "Investissements d'avenir" projects within the university:

- the LabEx and EquipEx coordinators and governance structures;
- the SIAS Director and Assembly;
- the heads of the IHU, the SATT, etc.

He will also provide guidance and support to these structures in order to assist them in implementing their projects and to foster coherence and synergies throughout the program.

He will be supported by a Management unit institutionally part of the "Service d'aide au pilotage"/"Steering support service" of the university, ensuring fluid information exchange and the maximal transformative impact of the IdEx management strategy on the university as a whole. The General Delegate will define and negotiate agreements with the various administrative services of the university assisting in the implementation of the "Initiative d'excellence" projects.

Focus on quality control and audit – Assessment and auditing of the IdEx program is a central component of the approach adopted by the University of Strasbourg in order to fully harness the leverage effects and flexibly adjust practices through collective learning made possible by precise and timely feedback on performance. Evaluation will be undertaken at four different levels:

- An annual financial audit accomplished by an external "Commissaire aux comptes", analysed by the Financial Supervisory Committee of the University and submitted to the Steering Committee. This audit will include controlling the level of funds invested by the university in relation to the "Initiative d'excellence";
- Continual monitoring by the Financial Supervisory Committee;
- A scientific assessment once every three years, directed by the Strategic Orientation Committee, possibly by mandating a specific group of academic experts from outside the university, and in close coordination with similar arrangements planned in the LabEx and other structures;
- A review of the organisation and processes once every three years, orchestrated by the "Internal control service" of the university, possibly with the recourse to external expertise. This analysis will also seek to assess the transformative impact of the IdEx management processes on the university as a whole.

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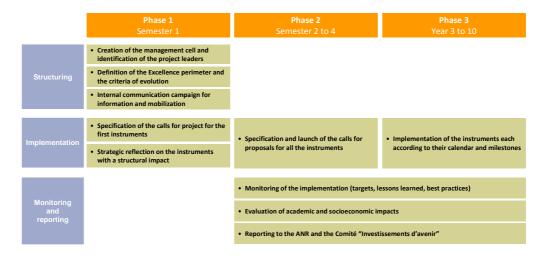
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#### 4.3. PROJECT ORGANISATION

The implementation of the IdEx project has been conceived by the university as a gradual process so as to maximize relevance and coherence, draw lessons learned progressively, and identify and spread the best practices observed.

Milestones and targets will be set up for each instrument, which will serve as a basis for the evaluation of their implementation and their academic and socio-economic impacts. Significant communication and consultation processes are foreseen to ensure the full mobilisation of the academic and administrative staff.

As a first approach, the implementation of the project has been structured in three phases:



First phase - Structuring of the program and first implementations (first semester)

*Organisation* - The university will first focus on the setting up of the management cell supporting the Delegate General (who is already in place), the identification of the project leaders within the university services (one for each instrument) and the definition of their relations. The university will also work on the definition of the initial excellence perimeter (on the basis of the outcome of the LabEx call for projects and the reports of the international jury) and the criteria and process for its evolution in the future.

*Implementation* - The main instruments will be detailed with the specification of the internal calls for project and the definition of the selection process. The university will draw for each instrument on a "lessons learned" exercise on previous related experiences as well as on analyses of the best practices in foreign universities. The first calls for project are expected to be launched at the end of the first semester of the project.

The university will also identify the instruments requiring further elaboration due to their level of complexity and their impact on the structures of the institution, as for instance the schools of excellence and the "Synergies<sup>2</sup>" project. For these structuring instruments, a strategic reflection will be led by the president of the university and submitted to the Administration Council. Working groups will be set up to ensure a wide consultation of the heads of departments, research units and collegiums.

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Communication - During the first phase, the university will organise a wide ranging internal communication in order to inform and mobilise its academic and administrative staff. Communication and consultation internal initiatives have already been launched during the elaboration of this pre-project, with a general call for ideas (130 answers received) and presentations to the Administration Council and the General Assembly in December 2010.

#### **Second phase - Gradual implementation within the first two years** (semesters 2 to 4)

The first calls for proposals for all the instruments are expected to have been launched in the first 18 months of the project, or by the end of the second year at the latest for the most demanding and structuring ones.

#### Third phase - Full implementation with continuous assessment of impact

From year three onwards, each instrument will follow its own calendar to meet the milestones set, and regular assessments of the IdEx as a whole will be conducted.

The Delegate General, supported by the project leaders and under the responsibility of the Administration Council, defines the calendar and milestones for each instrument, detailing the calls for projects, the selection and recruitment processes and the targets to be met.

The evaluation of the implementation and assessment of the impact of each instrument will be carried through in accordance with the demands of the ANR. In this respect, a general assessment of the implementation of the IdEx project is foreseen at the end of its third year (on the basis of the results of the first calls) to draw lessons, identify the best practices, improve the implementation and prepare for the ANR evaluation of the fourth year.

#### 5. MEANS

#### 5.1. FINANCIAL AND SCIENTIFIC JUSTIFICATION FOR THE MOBILISATION OF RESOURCES

The section below briefly describes the main costs and resources mobilised or generated by each instrument on an average annual basis. Three key elements need to be underlined:

- The funding by researcher is 4 times higher inside the excellence perimeter than outside. The university will indeed concentrate 70% of the funds on the excellence perimeter, while this perimeter represents only 1/3 of the total academic staff;
- The bulk of the funds will be concentrated on research (40%) and education (31%). Other priorities include relations with the economic sector (10%) and performance management within the university, talent management included (12.7%);
- The university also aims to mobilise and generate significant external resources through the "initiative d'excellence", thanks its partnerships with both local authorities and private firms, and through a stronger involvement in public and private research contracts.

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### 5.1.1. SURPASSING RESEARCH FRONTIERS THROUGH ATTRACTIVENESS AND INTERDISCIPLINARITY

#### The "Strasbourg Institute for Advanced Studies" (SIAS)

<u>Financial needs</u> - The bulk of the costs of SIAS are personnel costs for external and internal Fellows. The project also involves working costs for research facilities for the external Fellows. The total financial needs for the SIAS has been estimated at around **4,500**  $k \in a$  year. Contributions from the partners - The equipment costs such as building facilities, and the Chairs will be covered by the University of Strasbourg and its partners. The total overhead costs<sup>7</sup> have been estimated at **4,116**  $k \in a$  year.

External resources - The University of Strasbourg and its partners will draw on their experience to attract additional funding from private firms and local authorities, hence 1,891 k€ a year. Moreover the Foundation will contribute from its own resources and it is expected that the SIAS Fellows will improve the university capacity to attract both public and private research contracts. The total external resources expected are therefore 3,120 k€ a year.

#### A "red carpet" facility for Junior and Senior researchers

<u>Financial needs</u> - The bulk of the costs are personnel costs for the senior and junior chairs and the post-doctoral fellows. This has been estimated at 3,600 k $\in$  a year. The project also involves working costs to cover for research facilities for the chairs and the post-doctoral fellows and equipment costs to be attractive for fellows, which have been estimated at around 600 k $\in$  a year. The total financial needs is therefore of **4,200 k\in a year**.

<u>Contributions from the partners</u> - The equipment costs (e.g. building facilities) and some personnel costs (e.g. researchers involved) will be provided for by the University of Strasbourg and its partners. The total overhead costs are estimated at  $18,720 \text{ k} \in \text{a year}$ .

External resources - The University of Strasbourg and its partners will draw on their experience to establish extra chairs funded by private firms or local authorities. We have set the ambition in this respect at one fifth of the IdEx chairs for private chairs and one fourth for local authorities, hence  $1,891 \text{ k} \in \text{a year}$ . The latter are expected to contribute to 40% of the equipment costs. Moreover the Foundation will contribute on its own resources, and it is expected that the chairs and post-docs will improve the university capacity to attract both public and private research contracts. The total external resources expected are therefore  $4,962 \text{ k} \in \text{a year}$ .

#### **International PhD Program**

<u>Financial needs</u> - The bulk of the funds will cover the personnel costs for 30 PhD fellowships a year, estimated at around 2,700 k $\in$  a year. It will also include research facilities for the hosting research units, for around 300 k $\in$  a year. The PhD Support Fund will include extra research and travel funding for PhD students enrolled at the university, for circa 693 k $\in$  a year. The total financial needs therefore amount to 3,693 k $\in$  a year.

As a rule, the university and its partners, the CNRS and the INSERM, have decided to cover for the overhead costs involved by the hosting of all the research and administrative personnel recruited in the framework of the "Initiative d'excellence". The reference used is that of the ANR Guide for the budget estimation of the proposals submitted to ANR calls for projects (2009). The overhead costs are estimated at 80% of the total salary cost. It includes management and secretary charges, office space and services, small equipment and accesses to the facilities of the university.

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<u>Contributions from the partners</u> - The University will cover the overhead costs estimated at 9,360 k€ a year.

External resources - The University of Strasbourg and its partners will draw on their experience to attract additional funding from private firms and local authorities. We have set the ambition in this respect at 1,350  $k \in a$  year.

### 5.1.2. TRANSCENDING EDUCATION FRONTIERS: EXCELLENCE, INNOVATION AND OUTREACH

#### Degrees of excellence

<u>Financial needs</u> - The personnel costs as for administration, communication and international development, estimated at 2,566 k $\in$  a year. The project also involves working costs for a total financial need of 3,075 k $\in$  a year.

<u>Contributions from the partners</u> - The total overhead costs and the student costs have been estimated at 17,204 k€ a year.

External resources - It is expected that these Degrees of excellence will have an improved capacity to attract both public and private financial support estimated at around 5% of their total costs. The total external resources expected are therefore 916  $k \in a$  year.

#### Schools of excellence

<u>Financial needs</u> - The bulk of the costs are personnel and working cost. The costs will also include fund to realize 5 projects of reengineering/change management each year for around 750 k€ by project. Equipment costs as specific materials are included and estimated at 368 k€ a year. The total financial needs is therefore of **5,175** k€ a year.

<u>Contributions from the partners</u> - The total overhead costs and the student costs have been estimated at 17,479 k€ a year.

External resources - It is expected that these Schools of excellence will have an improved capacity to attract both public and private financial support estimated at around 5% of their total costs. The total external resources expected are therefore 1,022  $k \in a$  year.

#### The Institute for innovation in Higher Education pedagogy

<u>Financial needs</u> - The bulk of the funds will cover 15 ETP for research, support to lecturers and administration, estimated at 1,188  $k \in a$  year. The project also involves working costs for administration / communication materials, which have been estimated at around 132  $k \in a$  year. The total financial needs for the institute is therefore of **1,320**  $k \in a$  year.

<u>Contributions from the partners</u> - Some of the working and personnel costs will be provided by the University of Strasbourg and its partners for total overhead costs estimated at 1,070 k€ a year. It is also committed to a complementary project of Learning Centre for student support, for an amount of 2,220 k€ a year, hence a total contribution of 3,290 k€ a year.

External resources - The University of Strasbourg expects to commercialize some of the contents created and provided through the institute. We have set the level of ambition at 5 % of the total costs (72 k $\in$  a year). The contribution of local authorities to the Learning Centre project is around 800 k $\in$  a year. The total external resources are therefore of 872 k $\in$  a year.

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#### 5.1.3. Breaking down frontiers between the academic and economic worlds

#### Improving university-to-work transition and job satisfaction

<u>Financial needs</u> - The bulk of the funds will cover personnel costs for 9 ETP and working costs for support and advice, estimated at around **720 k€ a year**.

Contributions from the partners - The University will cover for the overhead costs estimated at 461 k $\in$  a year, and mobilize its university-to-work transition service (2,000 k $\in$  a year), hence a total contribution of **2,661** k $\in$  a year.

#### A regional integrated structure for research-based economic development

<u>Financial needs</u> - The structure costs are estimated at **350 k**€ **a year** and the fund for projects implementation at 1,750 k€. The total financial needs is therefore of **2,100 k**€ **a year**.

Contributions from the partners - The University ants its partners will cover for the overhead costs estimated at  $461 \text{ k} \in \text{a year}$ , on top of the regular budget of the 4 entities, for a total amount of  $6,316 \text{ k} \in \text{a year}$ .

External resources – The University of Strasbourg and its partners will draw on their experience to establish extra chairs co-funded by private firms. We have set this ambition at half of the costs of the chairs, hence  $1,000 \text{ k} \in \text{a year}$ .

#### A new model for continuing education

<u>Financial needs</u> - The personnel costs are estimated at 165 k€ a year and the working costs to cover materials at around 53 k€ a year. The total financial needs is therefore of **218** k€ a year. <u>Contributions from the partners</u> - The University will cover for the overhead costs estimated at 132 k€ a year. The university will also mobilize its continuing education service (1,600 k€ a year) and provide the teaching staff (3,150 k€ a year), hence a total of **4,882** k€ a year.

External resources - Due to the experience of the University of Strasbourg in continuing education and the perspectives generated by this new model, we have set the ambition with an average increase of 10 % of the revenues of the continuing education, hence 800 k $\in$  a year.

#### 5.1.4. GOING BEYOND FRONTIERS BETWEEN SCIENCES, ARTS AND SOCIETY

#### A socio-cultural Intervention Fund

<u>Financial needs</u> - Personnel costs for the organization of the major cultural and social events of the university (4 ETP) have been estimated at 326 k $\in$  a year. The project also involves working costs in order to set up projects as artist residency or conferences. The total financial needs for this intervention fund is of **543** k $\in$  a year.

<u>Contributions from the partners</u> - The University will cover for the overhead costs estimated at 261 k $\in$  a year and mobilize its cultural service (2,000 k $\in$  a year). Moreover it is committed to major investment projects for the diffusion of arts and sciences (3,715 k $\in$  a year), hence a total of **4,882 k\in a year**.

External resources - The University of Strasbourg will draw on its experience to attract additional funding from cultural institutions (on an equal basis, hence 543 k $\in$  a year). The contribution of local authorities to the cultural investment projects is of 750 k $\in$  a year, hence a total of external resources of **1,293** k $\in$  a year.

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#### 5.1.5. CROSSING A NEW FRONTIER IN UNIVERSITY MANAGEMENT

#### A policy of "talent management" within the university

<u>Financial needs</u> - Salary supplements and reduction of courseload for 250 lectures and researchers, estimated at **2,500 k€ a year.** 

#### The "Synergies2" project: management based on relevance and performance

<u>Financial needs</u> - The personnel cost have been estimated at 855  $k \in a$  year, excluding working and equipment costs, for a total of **1,425**  $k \in a$  year.

<u>Contributions from the partners</u> - The University will cover the overhead costs estimated at 684 k€ a year and also contribute to the fund for a total estimated at **1,809 k€ a year**.

#### 5.2. ACTIONS OF THE PERIMETER OF EXCELLENCE

Table 1: Presentation of the resources and expenses for the actions within the perimeter of excellence cumulated over 10 years (in million euros)

	Resources				Expenses			
	IdEx grant	Other grants from Investissements d'Avenir	Partners contributions	External ressources	Investment costs (including real estate)	Working costs	Personnel Costs	
Surpassing research frontiers through attractiveness and interdisciplinarity	87		225	66	9	109	260	
Transcending education frontiers: excellence, innovation and outreach	67		266	20	20	72	261	
Breaking down frontiers between the academic and economic worlds	21		97	13	0	42	89	
Going beyond frontiers between sciences, arts and society	4		42	9	32	10	13	
Crossing a new frontier in university management	27		13	0	1	7	32	
IdEx governance	10		5	0	0	6	9	
Total IdEx for the excellence perimeter	217		648	107	61	246	664	
LabEx projects		162	980	355	94	317	1086	
Total IdEx +LabEx for the excellence perimeter	217	162	1 628	462	155	564	1 750	

#### 5.3. OTHER ACTIONS

Table 2: Presentation of the resources and expenses for the other actions of the "Initiative d'excellence" cumulated over 10 years (in million euros)

	Resources				Expenses		
	IdEx grant	Other grants from Investissements d'Avenir	Partners contributions	External ressources	Investment costs (including real estate)	Working costs	Personnel Costs
Surpassing research frontiers through attractiveness and interdisciplinarity	37		97	28	4	47	111
Transcending education frontiers: excellence, innovation and outreach	29		114	8	8	31	112
Breaking down frontiers between the academic and economic worlds	9		42	5	0	18	38
Going beyond frontiers between sciences, arts and society	2		18	4	14	4	6
Crossing a new frontier in university management	12		5	0	1	3	14
IdEx governance	4		2	0	0	3	4
Total IdEx - outside the excellence perimeter	93		278	46	26	106	285

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#### 6. GLOSSARY

**AERES**: the National Evaluation Agency for Research and Higher Education. As an independent administrative authority set up in 2007, the AERES is tasked with evaluating research and higher education institutions, research organisations, research units, higher education programmes and degrees and with approving their staff evaluation procedures.

**ANR**: the National Agency for Research. Institution founded in 2005, tasked with funding scientific research. The ANR funds scientific teams, both public and private, in the form of short-term research contracts.

**CNRS:** National Center for Scientific Research.

**EquipEx:** The "Equipements d'excellence" call for projects of the "Investissements d'avenir".

**HDR**: Habilitation à Diriger les Recherches. The French habilitation to supervise PhD students.

**IBMC**: Institut de Biologie Moléculaire et Cellulaire: the Institute for Molecular and Cellular Biology in Strasbourg comprises 3 CNRS laboratories. Even though they develop distinct research fields, the interest of merging them into the same building is an incentive toward the emergence of new research.

**IBMP**: Institut de Biologie Moléculaire des Plantes. It is a CNRS institute affiliated with the University of Strasbourg. This institute is presently the largest CNRS centre devoted to integrative plant biology.

**IdEx:** The "Initiatives d'excellence" call for projects of the "Investissements d'avenir".

**IGBMC**: Institut de Génétique et Biologie Moléculaire et Cellulaire (CNRS, Université de Strasbourg, INSERM). IGBMC is one of the leading European centres of biomedical research, it is devoted to the study of higher eukaryotic genomes and to the control of genetic expression as well as the analysis of the function of genes and proteins.

**IHU:** "Institut Hospitalo-Universitaire" call for projects of the "Investissements d'avenir".

**INRA:** National Institute for Agronomy Research.

**IRCAD**: Institut de Recherche contre les Cancers de l'Appareil Digestif. The Research Institute against Digestive Cancer was founded in 1994 by Prof. Jacques Marescaux. It pools digestive cancer research laboratories, a R&D department in computer sciences and robotics, and a training centre in minimally invasive surgery.

**INSERM:** French research organisation focused on medical research and health.

**ISIS**: Institut de Science et d'Ingénierie Supramoléculaires. The ISIS Institute was founded by Prof. Jean-Marie Lehn. It is shared between the CNRS and the University of Strasbourg. Its mission is to promote top level scientific research at the interface between Physics, Chemistry and Biology.

**IUF**: Institut Universitaire de France. It was created in 1991 under the form of a department of the French ministry of high education and research, to recognize the scientific activities of high level faculty members in their own universities. The mission of the IUF is to promote the development of a high quality university research, and to strengthen interdisciplinary projects The IUF members are selected by an international jury at both the junior and senior level. The members have a reduced teaching load (1/3) for 5 years for juniors or upto to 10 years for seniors. They also receive some extra research funding from the IUF.

**LabEx:** The "Laboratoires d'excellence" call for projects of the "Investissements d'avenir".

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**MISHA**: Maison Interuniversitaire des Sciences de l'Homme – Alsace. This Social Sciences and Humanities Research Institute is affiliated with the CNRS and the Universities in Alsace.

**RTRA**: Réseau Thématique de Recherche Avancée. Thematic network of excellence created by the French ministry of high education and research. 13 RTRA exist in France, the single one in Chemistry is in Strasbourg.

**SATT:** "Société d'accélération du Transfert de Technologie" call for projects of the "Investissements d'avenir".

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Monsieur Alain BERETZ Président Université Strasbourg 4 Rue Blaise Pascal CS 90032 67081 STRASBOURG Cedex



Campus Gérard Mégie 3, rue Michel-Ange 75794 Paris cedex 16

01 44 96 40 00 01 44 96 49 13 Cher collègue,

Nous avons pris connaissance avec beaucoup d'intérêt de votre projet d'initiative d'excellence (IDEX) dans le cadre de l'appel à projets des investissements d'avenir. Nous sommes impressionnés par l'ensemble du travail de réflexion, de mise en cohérence des forces en présence, ainsi que par la qualité de la prospective qui ressort de votre dossier.

Votre projet correspond à notre vision de la structuration territoriale de la recherche publique de notre pays. Nous souhaitons nous aussi l'émergence dans des délais rapprochés et raisonnables *d'universités de recherche* dont notre pays a besoin.

C'est pourquoi, le CNRS a décidé de vous apporter son soutien et sera heureux de participer à la structure de pilotage scientifique de votre initiative d'excellence. Nous vous souhaitons bonne chance dans vos projets.

Je vous prie de croire, cher Collègue en l'expression de mes sentiments très cordiaux.

Alain FUCHS

Dépasser les frontières Advancing the frontières

2010

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### Institut national de la santé et de la recherche médicale

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N/réf. EC/im 2011-14

Monsieur Alain Beretz Président Université de Strasbourg 4, rue Blaise Pascal CS 90032 67081 Strasbourg Cedex

Paris, le 5 janvier 2011

Objet : Appel à projets « Initiatives d'Excellence » des Investissements d'Avenir

#### Monsieur le Président,

J'ai pris connaissance avec beaucoup d'intérêt de la candidature que vous allez soumettre dans le cadre de l'appel à projets « Initiatives d'Excellence » des Investissements d'Avenir, pour laquelle vous avez sollicité l'Inserm. Conscient de l'effort important de structuration de la recherche que vous avez impulsé, je tiens à vous féliciter de la qualité du travail effectué.

Strasbourg constitue, comme vous le savez, un site majeur pour l'Inserm, particulièrement présent, et j'ai bien noté que les sciences de la vie et de la santé constituent un axe prioritaire de votre projet. L'Institut a par conséquent clairement vocation à y être pleinement associé et vous apporte tout son soutien.

A ce titre, l'Inserm est prêt à s'impliquer à la gouvernance resserrée de l'Initiative d'Excellence, représentée par le « Steering Committee », comme vous le proposez.

Votre projet s'inscrit pleinement dans le cadre du partenariat renforcé entre les universités et les organismes de recherche, qui permettra aux laboratoires les plus performants de répondre aux nouveaux enjeux des sciences de la vie et de la santé, de renforcer des approches pluridisciplinaires, d'interagir plus fortement avec la formation des étudiants et de s'inscrire ainsi avec les meilleures chances de succès dans la compétition internationale. Je vous renouvelle le total soutien de l'Inserm et notre volonté de relever avec vous ce défi majeur pour l'enseignement supérieur et la recherche.

Vous souhaitant bonne chance dans vos projets, je vous prie d'agréer, Monsieur le Président, mes salutations cordiales.

Pr. André Syrota Président-directeur général

Copie : M. Block, délégué régional de l'Inserm