DEFINE THEMATIC REPORT: FUNDING FOR EXCELLENCE

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Funding for excellence

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1. Introduction

Today higher education institutions across Europe face demanding and complex financial circumstances in which traditional modes of funding have been transformed and continue to evolve. Moreover, public funding in many countries is not as generous as it once was, and in many cases is becoming more demanding and competitive. These changes are particularly significant in Europe where universities have traditionally been more reliant on public funding. The current economic and financial crisis has exacerbated these problems even further, with growing stress upon the sustainability of existing public higher education funding regimes, and pressure mounting to explore new sources of income. The efficiency of funding, which is reflected by the capability to meet certain policy goals in a cost-effective way, is therefore becoming increasingly important.

The DEFINE project, the findings of which underpin the present analysis, has taken funding efficiency in higher education as the main focus of its research and activities, thereby providing data and recommendations which will support the development of strategies to increase the efficiency of funding. The project notably included the setting up of international focus groups of university practitioners to identify good practice, challenges and pitfalls as well as to assess the impact of funding efficiency measures such as performance-based mechanisms, institutional mergers and excellence schemes.

The project aims at contributing to the improved design and implementation of higher education funding policy and, in so doing, to enhance funding efficiency in the sector.

In the context of ongoing higher education funding policy developments at national and European level, the European University Association will use this study's findings to support universities in responding to these changes.

The present report focuses on public funding for excellence; it provides an analysis of existing schemes and explores related challenges and success factors. It focuses in particular on the institutional impact of such schemes on beneficiary institutions, and notably on the potential unintended effects, with a view to providing recommendations to policy makers, funders and university managers for their planning and implementation.

Data was first collected from 29 European systems through a questionnaire, followed by several rounds of consultation and interviews with EUA's collective members, the National Rectors Conferences, to verify the data. This was complemented by the institutional case study of the Friedrich-Alexander University of Erlangen-Nuremberg (Germany), in the form of a self-evaluation report and a site visit, as well as a focus group where university managers and leaders from different European countries discussed their experience of public funding for excellence and its impact on universities.

The report draws on this information and presents EUA's analysis of the use of public funding for excellence in the university sector across Europe.

2. Scope of the report

This report focuses on public funding mechanisms aiming to raise the performance of certain higher education institutions to an "excellent" level. It should be noted from the outset that identifying such measures, or initiatives, proves highly challenging, considering the diversity of situations and practices

in the field throughout Europe. In the absence of a clear-cut definition, the study identified a series of key features to determine the scope of research.

The first definition used in this study addressed "large-scale initiatives where public funding is directed to universities on a competitive basis not related to specific projects, and focus[ed] on the development of wider institutional strategies" (for example, the excellence initiatives in Germany or France). This definition helped distinguish between the mechanisms considered and "regular" competitive funding, which typically awards funds on the basis of a proposal for a given set of activities brought together in a project format.

Responses to the first questionnaire submitted to National Rectors' Conferences revealed, however, a wider variety of understandings and as a consequence it was possible to draft a longer list of various measures that could be considered as "public funding for excellence". In a second round, these additional understandings were therefore included, adopting the definition of "public funding schemes that have as their main objective the fostering of excellence". This kept a broad spectrum approach and took into account a large variety of mechanisms. In order to enhance readability, in the rest of this report we refer to "excellence schemes" as a global term encompassing the various mechanisms detailed below.

In a few cases, it becomes difficult to distinguish between the measure considered and regular competitive funding rounds or between the measure and regular "performance-based" funding. This may be, for instance, because public authorities decided to retain schemes beyond their original life cycle. In some systems the "funding for excellence" constitutes an integral part of the main funding mechanism. This is the case in the United Kingdom, where the Research Excellence Framework (REF) provides data to one of the principal public funding tools for the universities' research activities and involves nevertheless a certain degree of selectivity, which as explained above is considered a feature of the schemes examined in this report (although nearly all concerned higher education institutions receive a research grant through this mechanism, it is awarded on the basis of their performance in specific subject fields). Another example is Hungary, where there is a scheme in place that permits the funding of research activities at a limited number of universities that are given the status of "research university of national excellence". However, research is only funded outside of this mechanism via the Scientific Research Councils on a competitive project basis. One can therefore consider this scheme as performance-based funding, accessible to universities that fulfill criteria linked to scientific publications and staff.

The period considered in this report extends from mid-2000 to 2014. The limited nature of this timeframe means that the possible consequences and impact of such schemes have not necessarily been identified nor thoroughly analysed by stakeholders.

The higher education systems studied in the DEFINE project are the following:

Austria	Hungary	Poland	
Belgium - Flanders	Ireland	Portugal	
Belgium - French-speaking Community	Iceland	Spain	
Czech Republic	Italy	Slovakia	
Denmark	Latvia	Sweden	
Estonia	Lithuania	Switzerland	
France	Netherlands	Turkey	

Finland	Norway	United Kingdom (England)
Germany		

The schemes featured in the present analysis are the following:

System	Scheme				
Austria	Creation of Institute of Science and Technology				
France	Excellence Initiatives (IDEX)				
Finland	Centres of Excellence in Research Creation of Aalto University				
Germany	Excellence Initiative				
Hungary	"Universities of National Excellence"				
Norway	"Centres of Excellence"				
Poland	"Leading National Research Centres" (KNOWs)				
Russia	"5-100" programme				
Spain	"Campus of International Excellence" Programme (CEI)				
United "Research Excellence Framework" (REF, previously the Research Kingdom Exercise)					

All of the above schemes present different characteristics, timeframes, and scales, which are further detailed in annex.

3. Excellence schemes in higher education systems

3.1. Characteristics

This study thus takes into consideration a variety of mechanisms which are of a selective nature – the funds distributed are not meant to benefit all universities in the sector, unlike core funding. However, these mechanisms differ from regular competitive funding because they are essentially characterised as "exceptional", meaning that they are introduced as separate measures outside of the existing funding mechanisms. They are also often intended to be limited in time, with the possibility to renew the initiative in case of perceived success. This constitutes another difference with regular competitive funding mechanisms, which in many cases operate on a recurrent basis.

They also differ from regular competitive funding in their scope and intended recipients. Competitive funding often tends to address individual researchers, research teams or researchers' networks, whereas excellence schemes may be aimed at institutional level, more often than not involving strategic choices and commitment by the institutional leadership.

A common point with regular competitive funding is the concept of selection and the associated use of peer review via jury panels, typically of an international nature. High-level academics have thus sat

on jury panels for different schemes. The concept of selection at the level of the institution (rather than at the level of research teams), represents an important move away from the prevailing equality paradigm in a number of higher education systems in Europe.

The British "Research Excellence Framework", the results of which inform the funding formula determining the universities' core research grant in the United Kingdom, is also considered in the present analysis, as it shares some of the characteristics (notably peer-review) and broader narrative referred to above. However, it should be considered as a particular case since the "excellence" mechanism is a component of the core funding system.

Excellence schemes most commonly address excellence in research; nevertheless, some systems have set up schemes focusing on teaching excellence. This is for instance the case of the French "IDEFI" scheme, which funds innovative teaching, or the "Quality Pact for Teaching" in Germany, which aims at improving the conditions of study and teaching quality.

The creation of a new institution may also be regarded, in specific cases, as a form of public funding for excellence, in particular given the concentration of resources and the narrative surrounding these processes. The merger of three higher education institutions to create Aalto University in Finland is an example. While Aalto University has ambitious aims in the field of research, excellent teaching was an explicit objective of the merger, with the perspective of generating new skills for the Finnish economy. The creation of a new institution out of a merger may also be an outcome of the excellence scheme, although it may not have been part of the direct objectives of the programme, such as in the case of the Karlsruhe Institute of Technology, which emerged out of the first round of the German "Exzellenzinitiative" as a strategic merger between the University and the Research Centre of Karlsruhe. Another scenario is the creation of a new "institution of excellence" outside of the existing university system, as happened in Austria with the foundation of the Institute of Science and Technology, which received about one billion Euros from the federal government over a period of ten years.

Funding for excellence: modalities		АТ	DE	DK	ES	FI	FR	HU	NL	NO	PL	RU	UK- EN
	n of new tution	•				•							
Dedicated	university level		•		•		•					•	
schemes	sub- institutional level		•			•	•			•	•		
Embedded in regular competitive funding				•					•				
Embedded in core funding								•					•

Finally, the schemes focused on in this study have mostly been set up since the second half of the 2000s; Germany's Exzellenzinitiative was launched in 2006; the Polish and French initiatives started in 2011, while the Spanish programme took place between 2009 and 2014. This is an important fact to take into consideration when seeking to assess the impact of the scheme on the higher education system and the extent to which it has achieved its objectives.

The following sections explore the multiple aspects of excellence schemes in their wider academic and funding environment and the associated challenges and opportunities for universities.

3.2. Rationale and objectives

Public authorities may choose to implement such measures for a variety of reasons, including achieving enhanced international visibility of the institutions concerned, improving research and/or teaching quality, and matching better supply and demand in the higher education market. However, in a context of constrained resources, excellence schemes are also meant to increase funding efficiency, whether as a main objective or not. They often have as an ambition the removal of inefficiencies and the concentration of funding by creating hierarchies between institutions.

The most commonly cited aim of "excellence schemes" refers to enhancing the competitiveness of a given system's research landscape in a perspective of international competition. Restructuring the higher education and research landscape is another common objective, by introducing further differentiation in the system and concentrating resources. Related to that is the strong focus on reforming the internal governance of the institutions. In some cases, the goals pursued are to be measured very concretely via, for instance, an improved position of key universities in international rankings. This is the case for instance in the Russian "5-100" project, whose title relates directly to the objective of placing at least five Russian universities in the "world's top 100 universities" by 2020. Other considerations range from better integration of universities in their economic environment (an objective of the Spanish programme), fostering cooperation among research actors, and further internationalisation of the higher education institutions.

Objectives

Enhancing the competitiveness of the system's research landscape in the context of international competition

Restructuring the higher education/research landscape

Enhancing the international visibility of the research system

Improving the system and related quality objectives

Internationalisation

Improving HEIs' positions in international rankings

3.3. Excellence schemes in their financial environment

From the outset, it is important to state that excellence schemes should not be considered in isolation from the general funding framework. Excellence schemes are usually special initiatives that generally

exist as an addition to an already complex array of mechanisms that channel funding to universities. EUA's previous work on income diversification¹ revealed that universities may have to manage a wide array of funding mechanisms that often come with different types of participation rules, cost coverage and financial reporting requirements.

The overall balance and nature of funding granted to universities thus matters when assessing the impact of excellence schemes on both successful and unsuccessful institutions. In a context where regular public funding to universities is cut, excellence schemes take on a different meaning. In these circumstances, although an excellence scheme may originally have been intended to serve as an instrument to reward and lift up capacities of the best performing institutions, it may become a tool to "fix holes" and enable universities to sustain their daily business. As an example, Spanish universities have seen their block grants diminish by about 15% over the period 2008-2014 (taking into account inflation²), with a loss of over 1.1 billion Euros³, while the "Campus of International Excellence" programme has provided around 700 million Euros to the sector between 2009-2011.

The introduction of excellence schemes, not unlike the increasing share of competitive funding in the overall funding framework, may also reflect a shift in the nature of funding provided to universities, with a trend towards more focused grants geared towards the completion of specific objectives.

The interaction with other sources of funding is also relevant when considering the creation of excellence schemes; part of the narrative surrounding these initiatives is that these are additional, albeit temporary, funds that are meant to give a "boost" to the institutions, and provide leverage in helping to generate further funds from private partners in particular. This is a clear objective of the Spanish and German programmes. For instance, the amount of externally generated funding is sometimes used as a proxy to assess the success of an excellence scheme. Therefore these schemes provide the best results in regions with well-developed economies in which universities maintain strong relationships with other actors, notably in the business and industry sectors. It is also important to note that, because of this notion of "additionality", excellence schemes tend to offer limited indirect cost coverage and may only fund parts of the activities considered, which may in turn cause major issues for the beneficiary universities and lead to significant internal reallocation of resources to cover indirect costs linked to the new activities.

Very much like for regular competitive funding, excellence schemes also generate costs of their own, which also need to be covered. Costs at the level of the participating institutions include the use of significant resources in the preparation of the applications. This may involve organising a preapplication assessment of the proposal by external peers. In the case of large schemes focusing on overall institutional strategies, these proposals involve a large number of key university stakeholders, with a large role for the institutional leadership and extensive consultation rounds, which also consume considerable staff time and financial resources. The ensuing management of the project, notably as regards the reporting requirements, also generates costs. Feedback on institutional experiences with such schemes shows that there is little awareness of the full costs of participation, and that these are often underestimated and unaccounted for.

¹ See EUA's EUDIS study: http://www.eua.be/eudis/

² See EUA's Public Funding Observatory: http://www.eua.be/publicfundingobservatory

³ Comparison between public funding distributed to public universities in 2014 and 2008 in Euros (inflation not taken into acount).

The management of the mechanism itself is also cost-intensive, in particular in large schemes such as in Germany. One significant source of expense is the number of international panels that need to be set up for a variety of disciplines (as well as interdisciplinary panels) and the number of selection rounds involved. The resource intensiveness of the German Excellence Initiative is viewed as a major reason by certain stakeholders for putting an end to an experience which is otherwise perceived as successful.

Excellence schemes should be implemented in a stable economic and regulatory environment and a solid funding framework to ensure that this special instrument does not become a replacement for regular public funds, thereby creating inefficiencies in the wider delivery of funding to the university sector.

3.4. The administration of excellence schemes

Large-scale funding mechanisms such as excellence schemes require significant administrative capacities, both at the level of public authorities and/or funding councils, as well as at the level of the participating institutions. From the design of the scheme, to its implementation and evaluation, a number of pitfalls need to be addressed.

It is clear that, to work successfully towards the intended goals, the rules of the scheme must be known in advance and should remain consistent throughout the process. This does not mean that there is no room for adaptation following a proper review exercise. However, without a doubt the objectives of the scheme should not be jeopardised by uncertainty and volatility in the process.

Stakeholders have, for instance, sometimes reported that, at the last stage of selection, considerations other than those communicated may play a role in the final decisions made. The selection procedure should be fully transparent, with detailed criteria known by all parties. The members of the jury panels should receive clear instructions as to the hierarchy of criteria used to evaluate the proposals. This is all the more important as excellence schemes explicitly seek to reward scientific excellence, and as such jury panels should hold an important, if not exclusive, role in the final decision. The fact that many panels have an interdisciplinary composition further adds to the difficulty of the exercise.

It is therefore essential that the process includes adequate checks and balances, as well as a degree of flexibility for further improvements. A specific concern in that regard is the status of "prolonged" projects – successful proposals that are given additional funding for further activities after the end of the initial funding period – when this possibility exists. The Norwegian "Centres of excellent research" programme includes a separate strand for those, which allows for modifications in the rules while maintaining continuity and consistency in the rules for beneficiary institutions who obtain prolonged funding.

Flexibility is also crucial to ensure fair treatment of the different academic disciplines, a question that is further explored in the next section. This can be done by taking into account the differing work cultures and practices when assessing the proposal submitted, as well as using differentiated proxies to measure productivity in the various academic fields.

Crucially, most of the issues covered above can be identified once an evaluation of the scheme has been carried out. However, the study reveals that, in the field of excellence schemes, evaluation is an exception rather than the rule. This may partly be due to the fact that most of the mechanisms

considered in this study have been implemented fairly recently, but it is nonetheless a worrying finding which needs to be addressed.

Public authorities should establish clear objectives and corresponding criteria for selection, while seeking to maintain a high degree of transparency in all processes. Administrative procedures need to be kept as simple as possible, so that reporting and other requirements do not take precedence over the stated goals of the scheme.

The funding body should collect feedback from the sector and review selection mechanisms accordingly; constant monitoring should help evaluate the attainment of the scheme's goals and assess the costs incurred.

3.5. Excellence schemes and the academic disciplines

Do excellence schemes treat all disciplines equally? It may be argued that commonly used selection mechanisms favour some academic fields over others that are less reliant on quantitative track records or team work. The type of expenditure being funded through the excellence scheme may also fit STEM proposals better if the focus is on large equipment rather than on personnel costs, which, by comparison, represent the largest expenditure in humanities and social sciences.

The excellence schemes must be designed in full consideration of these aspects, and avoid creating unnecessary barriers. Peer-review panels are expected to naturally correct some of the inherent bias of the mechanism. Different logics may however create tensions; for instance, the wish to submit proposals to international evaluation panels may lead to the requirement to draft proposals in English, which may not be relevant for specific fields. Research topics particularly rooted in a regional or national context may also find it difficult to resonate in international evaluation mechanisms.

The increasingly interdisciplinary nature of research also represents a particular challenge in the framework of excellence schemes, notably in relation to the setting up of adequate international review panels for certain fields. University leaders warned against giving undue preference to "niche" interdisciplinary proposals, or on the contrary, underrating proposals because of a lack of adequate reviewing capacity for highly specific fields. Thus whether excellence schemes promote or hinder interdisciplinarity remains to be seen. However, it should be taken into consideration in the design of such schemes.

Different adaptation strategies may be observed, either at system level or within the academic community. The selection mechanisms of excellence schemes may be adapted, in particular as regards the measurements of productivity in humanities disciplines to better reflect the characteristics of scientific production in these fields. For its part, the academic community may develop working modalities that improve their capacity to submit proposals, for example, by adopting a culture of working in teams.

Checks and balances should be set up in the selection mechanisms to ensure a fair review of the different disciplines and of the interdisciplinary applications. Evaluation panels should be briefed thoroughly and subsequently monitored; unambiguous instructions should be given as to how to evaluate the submitted proposals.

4. The impact of excellence schemes on universities

4.1 Excellence schemes as drivers for strategic institutional profiling

Heightened international competition for talent and funds requires universities to make themselves more visible on the international stage, and distinguish themselves from competitors by developing a strategic profile. Excellence schemes are an instrument available to public authorities to promote this, with strategic profiling becoming a dimension of the application and granting process. Universities are therefore encouraged to identify, strengthen and capitalise on their strengths and assets. Universities may choose to invest internally in a strategic way to create a leveraging effect. They may provide seed funding to high-potential initiatives in order to help them reach a level where they can be turned into excellence scheme proposals, creating de facto an "internal excellence scheme" focused on the young generation.

The Emerging Fields Initiative of the Friedrich-Alexander University of Erlangen-Nuremberg

In 2010, the university leadership decided to take up on a self-funding basis the "Emerging Fields Initiative" (EFI), a project initially submitted but not selected in the German "Exzellenzinitiative" competition.

The initiative aims to promote outstanding, preferably interdisciplinary, research projects at an early stage and in a flexible and non-bureaucratic way, and prepare them for external funding.

This internal funding scheme for excellent research is expected to enhance the university's reputation as a leading university, develop its unique selling points, improve its attractiveness as an employer for excellent researchers both from Germany and from abroad, and expand its strategic alliances with key partners.

Funding for this project is derived from resources released from vacancies and indirect costs of other projects. The university applies a policy whereby a percentage of indirect costs of each externally funded project is directed to central university management.

The extent to which this mechanism mirrors that of the German "Exzellenzinitiative" is interesting. The EFI is focused on promoting high-risk research in emerging fields and seeks to combine excellence and interdisciplinarity. Thus the EFI is seen as a promotion of novel but promising interdisciplinary research projects and partly as a compensation mechanism for the imbalances within the institution resulting from the German "Exzellenzinitiative". However, with the excellence criterion explicitly prevailing, the intiative reinforces the new overall institutional dynamic. Due to their international reputation, the engineering and natural sciences faculties indeed benefit from a virtuous cycle of financial reinforcement within a large multidisciplinary institution.

Source: Friedrich-Alexander University of Erlangen-Nuremberg self-evaluation report and site visit report (unpublished).

Such initiatives may thus be seen as a stepping stone towards success in the large-scale excellence scheme. However, they may also be envisaged as a corrective mechanism to perceived shortcomings of the excellence scheme, given that they tend to privilege established research teams over promising ones, disciplinary over interdisciplinary work, and certain types of academic fields over others. The institution may also seek to adapt its internal structure to improve its capacity to meet the excellence scheme requirements in terms of governance and flexibility, as well as enhance its ability to profile itself strategically (see next section).

Communication within the university and towards external partners is also paramount in this process; the former in order to foster acceptance of the evolutions triggered by the participation in the excellence scheme, and the latter to generate or further enhance partnerships and collaborations that will in turn strengthen the university's vision and project.

In Germany, the "Exzellenzinitiative" puts pressure on universities to identify a limited number of overarching priority research areas and thus paves the way towards a more specialised, differentiated higher education and research landscape in Germany. At Friedrich-Alexander University of Erlangen-Nuremberg (FAU), this has translated into the creation of a matrix structure, identifying eight main research areas covering different academic fields, broken down into focus areas in each faculty. A process has been set up to keep this structure up to date, on the basis of various indicators used as proxies for the importance of a research area to the university (number of research-active staff in the area, third-party funding, scientific impact and international reputation).

This drive towards "profiling", or to some extent towards specialisation, inevitably creates tensions within universities which, as comprehensive institutions, have a tradition of maintaining wide academic portfolios. In a context where institutions have often struggled to keep an acceptable balance between disciplines and academic fields, the pressure to focus on a limited number of flagship or specialist disciplines requires a concerted effort and innovative decision-making in the university. Some institutions have for instance embarked on strategic review exercises, defining a selection of thematic foci to which most disciplines represented in the university can contribute towards.

As a consequence of this trend, also enhanced by the various "clusters of excellence" components that can be found in the different excellence schemes, a need emerges to map the areas of excellence or focus of universities throughout Europe, as has been done at national level, notably in Germany.

In the longer run, the trend reinforced by excellence schemes may pose difficult questions as to the degree of diversity of the academic offer in a given system, and in particular as to the most relevant geographical level at which to measure such diversity (from regional to national, European, international level). While this trend primarily refers to profiling and specialisation of research activities, this is also a relevant question for research-based education, a core value of the Bologna process.

A final consideration under this topic relates to the necessary renewal and evolution of institutional strategies, as the environment changes and research progresses. It is therefore recommended that excellence schemes, when promoting institutional profiling, leave sufficient leeway for universities to adapt to new challenges.

4.2 Excellence schemes as drivers for institutional restructuring

The extent to which excellence schemes foster internal restructuring within the universities depends on their scope and financial means. It is certain that this is a factor in France and Germany. However, smaller-scale initiatives that, for instance, promote clustering among laboratories also raise governance and restructuring questions.

Achieving institutional profiling requires a significant degree of restructuring of the institution's governance, introducing greater flexibility to speed up decision-making on strategic choices and fostering their implementation.

Generally, certain trends or possible outcomes can be envisaged. One relates to the focus put on thematic "clusters" that tend not to match with the way academic structures are typically organised in comprehensive universities, and therefore encourage more transversal approaches. This may also contribute to a second observation, which is that restructuring leads to flatter structures, sometimes eliminating intermediary levels of management such as faculties, and also favours reduced numbers of sub-institutional entities (larger schools/faculties/departments). This was the chosen approach for Aalto University's merger process, as well as that of the Friedrich-Alexander University of Erlangen-Nuremberg when preparing for the German Excellence Initiative, a model since then emulated by other German universities.

Development of new structures in Aalto University and Friedrich-Alexander University of Erlangen-Nuremberg

The target of the Aalto merger in respect to governance was to create new opportunities that were not possible in the context of the previously extensive dependence on government decision-making processes and administrative systems. The merger, combined with the benefits of the wider university reform in Finland, aimed to bring about greater autonomy in internal decision-making processes and allow for new organisational structures to be created, which would be better adapted to the university's activities and missions. In addition, merging three universities with consolidated and streamlined structure was intended to result in leaner management and cost savings.

As a result, Aalto University is now structured in six schools which share service functions. The schools are led by Deans and consist of academic departments led by Department Heads. The schools are responsible for teaching and research within their disciplines and are academically independent within the University strategy, guidelines, annual plan and budget. The University shared service functions are organised in matrix, where the mutual service processes are defined centrally and the actual services are provided locally within the academic units.

Source: Aalto University's self-evaluation report and site visit report (unpublished).

At the University of Erlangen-Nuremberg, the central university leadership and management exploited synergies between an internal reform plan aiming at re-organising the university's structures and the bidding process to obtain "elite university" status through the German "Exzellenzinitiative", which itself strongly promoted governance reform. The restructuring included reducing the number of faculties, from eleven to five, introducing new department and management structures, and reducing the size of the university senate. An extended university governing board (executive board and deans) was created in addition to the supervisory board and the executive board. The process also entailed a reorganisation of the administration. This organisational restructuring aimed to facilitate decision-making and profiling of the institution. The university leadership reports that this radical reform significantly improved the decision-making, communication and information structures, interdisciplinary collaboration, and teaching. In this regard, the "Exzellenzinitiative" eased the implementation of this large-scale restructuring.

Source: Friedrich-Alexander University of Erlangen-Nuremberg's self-evaluation report and site visit report (unpublished).

Excellence schemes may require institutions to regroup and articulate a common strategic vision at the level of the region. In these cases, it becomes necessary to create new governance structures "above" the participating universities where institutional leaders can take decisions; it is also necessary to design working bodies that can monitor the implementation of these decisions. In certain cases, the

set up of governance bodies needs to reflect the collaborative nature of the scheme and therefore the involvement of other partners, such as large companies and SMEs, other public bodies, research performing organisations and other types of higher education institutions.

Some excellence schemes also promote and fund the setting up of new structures within universities, for instance the graduate schools supported under the first line of funding of the German Excellence Initiative. It can be a challenge for universities to incorporate these structures into the existing governance architecture and eco-system of the institution. Public authorities tend to consider it good practice to place these "jewels" of the university directly under central management, with short reporting lines fostering the continued commitment of the university leadership.

All of the above re-engineering of university governance structures may meet strong resistance within the institution and it is therefore crucial that the leadership gives due attention to communication with the various constituencies of the university as well as seeking to foster their involvement in the process. It appears necessary that sufficient room for manoeuvre is given to institutions to propose governance models that fit with their profile and characteristics. Models that are "imposed" as part and parcel of the funding scheme may lead to situations where the new structures are not seen as fully part of the university, diminishing the positive spin-off effects of the experience for other parts of the institution.

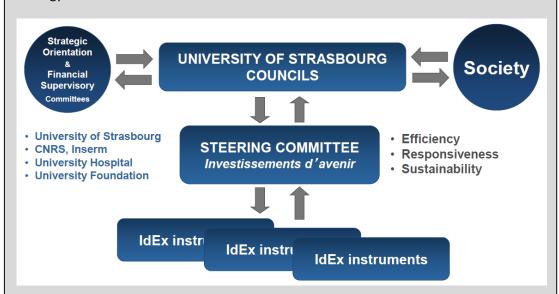
Governance structures in the Spanish CEI programme and example of the University of Strasbourg with the French Excellence Initiative

Campus Carlos III is an aggregate of different institutions led by the University Carlos III of Madrid (UC3M), in order to develop a sustainable interurban campus located in the Madrid Region. The aim of the clustering is international excellence in research, knowledge transfer and teaching in the fields of social sciences, engineering and humanities. The CEI "Campus Carlos III" project (2010-2014) has its own governance structures distinct from those of the university to ensure coordination of all activities related to the Campus and in order to guarantee that they are carried out efficiently. It comprises a board of 11 members, chaired by the university president and including representatives of the main groups (local and regional authorities, private sector, research centres). Other bodies (executive and monitoring) are composed of senior university leadership team members.

Source: Campus Carlos III final report

http://portal.uc3m.es/portal/page/portal/inicio/universidad/institucional/campus excel encia/final report/CEI09-0029%20Final%20Report.pdf

In France, the University of Strasbourg successfully applied for an Excellence Initative ("IdEx") grant in partnership with the National Centre for Scientific Research and the National Institute for Health and Medical Research. The governance structure set up reflects how embedded the project is within the university governance and institutional strategy.



Source: Presentation by Alain Beretz, President of the University of Strasbourg, at the second EUA Funding Forum, 9-10 October 2014, Bergamo, Italy.

4.3 The role of the university leadership

It is an observation common to the larger excellence schemes that the university's central leadership is a key actor in all processes, from bringing together the various communities of the institution to making strategic decisions linked to profiling. This role is more pivotal than in regular competitive funding, where the central university management tends to be in a semi-external stakeholder position, aside from its role in defining the strategic areas which should be focused upon at the level of the institution.

The university leadership takes decisions related to the strategic reallocation of resources, a particularly acute question since it results in privileging particular areas or groups within the university, often at the expense of others. It is the role of the university leadership to ensure the long-term sustainability of the activities funded under the excellence scheme, which by definition offers temporary support and therefore requires a carefully planned exit strategy.

The university leadership is also the main communicator within and outside the university community. Within the institution, the leadership must ensure that all communities are kept informed and involved, and therefore increasingly resorts to direct communication channels, in contrast with communication via the sub-units. The leadership must work towards the acceptance of sometimes difficult changes associated with restructuring and reallocation of resources. It must foster the development of an institution-wide strategy while preserving the institutional balance.

The role of the university leadership as regards excellence schemes is multifaceted. It is the leadership team's task to assess the opportunity for the institution to take part in such schemes and evaluate related costs and benefits. Their role is also to anticipate the possible effects on the university's internal balance and to take strategic action in response to this. Finally, the leadership is responsible for guaranteeing transparent communication (both internally and externally) at all stages of the process.

4.4 Added value and positive impact

Universities successful in applying for excellence scheme funding find themselves in an improved position in many ways. The financial support enables additional activities to be carried out, as well as the recruitment of high quality staff, contributing to raising the quality of research produced by the institution. Provided that the scheme structure rewards it, the institution may also benefit from more interdisciplinary research. This in turn may also have positive spill-over effects in education and training activities. However, in this regard it is important to seek to preserve an adequate balance between research and education so that the focus on the former does not come at the expense of the latter.

Universities also expect, and work towards, achieving internal synergies so that successful teams or structures "radiate excellence" towards the rest of the institution, helping to deepen a culture of excellence and spread group work across the various areas of the university.

French, German and Spanish universities notably report that participating in the excellence schemes fostered a cultural change within institutions, gradually accepting to profile themselves and use this as a strategic asset, in particular in their relations with external partners.

The "quality label" granted to the successful universities also helped raise their visibility and attractiveness, not only towards partners and academic staff but also towards students, especially at

the doctoral level. Industrial doctorates may also indirectly benefit from the excellence schemes and the boost they give to university-industry collaboration at the highest level. In general, excellence schemes are seen as having a positive impact on the development of doctoral education, not least because some schemes fund the creation of graduate or research schools, such as in Germany.

Finally, excellence schemes have a positive impact on recruitment practices of participating universities that need to address this dimension more proactively and build up capacity in terms of human resource management. A related aspect is the promotion of gender equality in cases where this features among the selection criteria.

At system level, it may be argued that excellence schemes have a positive impact on the overall higher education and research landscape, notably in terms of international visibility and attractiveness towards foreign academic staff and doctoral candidates.

4.5 The sustainability challenge

Crucially, excellence schemes are viewed as time-limited initiatives to drive change, rather than a permanent funding mechanism. While in some cases it is possible to apply for a second grant, the underlying concept is one of temporary support.

Consequently, the question of sustainability needs to be addressed. One aspect of this challenge relates to the duration of the financial support received by the institution. Grants under excellence schemes often have a lifetime of five to seven years. Time is indeed necessary to consolidate achieved outcomes, in particular in relation to collaborations developed with external partners.

Financial sustainability mechanisms in the French "Excellence Initiative" programme

In the second wave of the French "Initiative d'Excellence", the selected projects receive during a first period of four years the interests yielded by a special fund managed by the National Agency for Research. During this period, the beneficiary must use these funds towards the achievement of a series of objectives agreed to in the convention signed with the National Agency for Research as well as with the State. At the end of this four-year period, an evaluation is undertaken to assess whether these goals have been completed. In case of a positive evaluation, the beneficiary is transferred the capital grant permanently, and can continue using the yielded interests. In case of a negative evaluation, the probation period may be extended or the funding may be stopped completely.

The interests yielded by the capital grant are set by an order published in the Official Journal.

The objectives set in the convention include several aspects, notably governance reforms, partnerships with the private sector, focusing of financial resources, leveraging external funding.

Source: IDEX-I-Site 2014 Call for proposal — "Second Programme d'Investissements d'Avenir" http://www.agence-nationale-recherche.fr/fileadmin/aap/2014/ia-idex-isite-2014.pdf

Exit strategies are another dimension of the sustainability challenge. Funding received by institutions in the framework of an excellence scheme supports additional, high-profile activities that in turn create high expectations and trigger new equipment and personnel costs. By the time the funds run out, the institution must have fully implemented a leverage strategy to generate additional funds from private partners in order to maintain – if not further raise – the new heightened level of activity. Candidate institutions often have to detail their sustainability plan at the selection stage.

Recruiting and retaining the personnel associated with the funded activities presents a specific challenge for universities. In some European countries, universities have a limited ability to recruit to short-term positions and must therefore create the financial leeway to open permanent positions. Universities participating in large-scale excellence schemes may thus have to think strategically about the internal allocation of resources over the long term. An example of this is the creation of a "pool" of internal positions, where all faculties or sub-institutional entities contribute their vacant positions; these positions are then reallocated to those areas of the university perceived as having strategic importance, such as areas temporarily funded through the excellence scheme. The same logic prevails for making resources available to cover the non-externally funded part of the activities, such as indirect costs.

Such funding mechanisms may therefore have extensive consequences on the internal resource management of the universities.

As a consequence, and at the level of the excellence scheme itself, there is a natural tension between two logics. On one side there is demand from the university sector to be able to re-apply in order to prolong the duration of funding of successful activities. On the other side, the cessation of grants after a specified period of time incentivises universities to design adequate exit strategies and take ownership of the sustainability challenge. Limiting the possibility to re-apply also helps maintain room for manoeuvre to accommodate newcomers in the excellence scheme.

Public authorities and the university sector need to agree on an exit strategy for the excellence scheme itself. The discussion is already ongoing in Germany after two rounds of the Excellence Initiative. The costs associated with the administration of the scheme lead a number of stakeholders to argue in favour of ending the scheme and transferring the funds to the overall university budget. All stakeholders need to consider how successfully started initiatives may be maintained over the longer term with other types of funders supporting the activities undertaken. This question is particularly acute in countries where the financial situation has significantly deteriorated over the lifetime of the excellence scheme, as is the case in Spain (see Excellence schemes in their financial environment).

The funding body should establish an exit strategy to ensure the sustainability of the outcomes achieved in the system when the scheme is brought to an end, for instance by integrating funding into the regular funding mechanisms. At institutional level, the leadership should also consider and establish such an exit strategy allowing the university to maintain the new level of activities after the excellence scheme funding comes to an end.

5. Recommendations

The emergence of "excellence schemes" is one of the most recent manifestations of the changing paradigms in the field of higher education, along with the multiplication of international rankings. While the latter has attracted widespread attention, the former remains relatively untouched, in part because it is difficult to assess the full impact of this trend given its long-term effects. Nevertheless, a series of observations can be made, which provide the basis for the following recommendations. The study has also revealed that there is a demand from public authorities and universities alike for a thorough mapping of the different schemes existing in Europe and beyond in order to enhance benchmarking and mutual learning.

5.1 Recommendations at system level

Funding

- Excellence schemes should be considered in their broader eco-system, taking into account how they fit with the regular funding modalities – notably the universities' block grants and regular competitive funding mechanisms.
- Excellence schemes should represent additional funding, and not take away basic funding granted to universities.
- When designing such a scheme, public authorities should seek to develop synergies with existing funding mechanisms, including from private sources, to avoid excessive financial dependence on the scheme and foster the long-term sustainability of the funded activities.
- Funding granted to universities through excellence schemes should primarily support the achievement of scientific goals and thus a certain level of flexibility in expense management should be preserved.

Evaluation processes

- Public authorities should establish clear objectives and corresponding criteria for selection, seeking to maintain a high degree of transparency in all processes.
- Two-round application processes are viewed positively by the sector as they reduce upfront proposal-writing work and thus help limit the diversion of resources in case of failure.
- Checks and balances should be set up in the selection mechanisms to ensure a fair review of the different disciplines and of interdisciplinary applications (if possible by combining specialist and broader expertise in the evaluation panels)
- Evaluation panels should be briefed thoroughly and subsequently monitored; unambiguous instructions should be given as to how to evaluate the submitted proposals. It should be clear whether past performance of the institution is considered in addition to the submitted proposal.

Objectives and vision

• Excellence schemes should avoid direct linkages with international rankings, particularly as the methodologies used by these rankings vary and the criteria they measure research with may differ from the "excellence" that the scheme seeks to foster.

- Excellence schemes should be instrumental in fostering risk-taking approaches; public
 authorities and evaluation panels should steer away from conservative, risk-adverse patterns
 that would only consolidate and widen existing disparities between leading players and other
 actors in the field.
- Excellence schemes should also seek to foster the development of teams of young academics and researchers, thus supporting the emergence of the next generation of scientists.

Management and monitoring

- Public authorities, funding councils and universities should not underestimate the administrative dimension of running such schemes, both on the side of the funding body and for institutions. Therefore it is important to assess these costs against the expected gains.
- Related administrative procedures need to be kept as simple as possible, so that reporting and other requirements do not take precedence over the stated goals of the scheme.
- The funding body should collect feedback from the sector and review selection mechanisms accordingly; constant monitoring should help evaluate the attainment of goals of the scheme and assess the incurred costs.
- The funding body should establish an exit strategy to ensure the sustainability of the outcomes
 achieved by the system when the scheme is brought to an end, for instance by integrating the
 funding into regular funding mechanisms.

5.2 Recommendations to institutions

- University leaders should assess the administrative costs of preparing applications and managing such large-scale projects against the expected gains.
- It is recommended to anticipate the possible unintended effects of the university's participation in the excellence scheme on the different constituencies and areas of the institution.
- This analysis should be complemented by an action plan to mitigate these negative effects, through the implementation of an institutional strategy re-assessing the university's priorities.
- The institutional strategy may usefully seek to redirect resources internally to support the identified priorities.
- The university may invest in a so-called "internal excellence scheme", designed according to the specific needs of the institution.
- The university should pay special attention to its communication with partners and external stakeholders, to explain and inform them about the activities established through participation in the excellence scheme. This will enhance the possibilities to develop further partnership and contribute to the sustainability of these activities.
- The university leadership should consider and establish an exit strategy allowing the university to maintain the new level of activities after the excellence scheme funding comes to an end.

6 Annex: excellence funding mechanisms considered in the report

Country	Finland	France	Germany	Hungary		
Programme	Centres of Excellence	Excellence Initiatives	Excellence Initiative	Universities of National Excellence		
Total funding	€49 million (first 3-year term of 2014-2019 programme)	€7.7 billion (mostly in capital grants)	First call: €1.9bn, second call: €2.7bn	ca. €20 million ("top three" universities share ca. €15 million and further three selected universities share ca. €5 million)		
Timescale	6-year programmes since 1995, with funding received in two payments (0 + 3 years)	First wave: 2010 (3 projects) Second wave: 2011 (5 projects) Third wave: 2014	2006-2011 2012-2017	2013-2016: 6 universities		
Objective	To regenerate and revitalise Finnish research and raise international profile	Foster excellence and raise international profile of French universities Goal: 5 to 10 excellent multidisciplinary "poles" able to compete with the best universities in the world	General improvement in the quality and international competitiveness of German universities and research	Enhance the international attractiveness of a group of top universities in Hungary and enhance research excellence		
Modality	Open call for proposals, chosen by Academy of Finland in line with strategic priorities	International jury - IDEX: institutional strategies - Also different streams of funding including more focused actions on laboratories (LABEX), research equipment (EQUIPEX) and teaching excellence (IDEFI)	International jury Call for proposals to three separate streams of funding: - Graduate schools - Clusters of excellence - Institutional strategies	Selection by Ministry for Education in consultation with Academy of Sciences and Accreditation Committee. Criteria: multidisciplinary research and training capacities, potential for advancement in the international rankings and demonstration of excellence in international student mobility.		
Main source	Academy of Finland website	http://www.enseignementsup- recherche.gouv.fr/cid51351/initiatives- d-excellence.html	http://www.excellence- initiative.com/excellence- initiative	Hungarian Rectors' Conference		

Country	Norway	Poland	Spain	Russia
Programme	Centres of Excellence	Leading National Research Centres	Campus of International Excellence	Project "5-100"
Total funding	ca. €2-2.5m per annum per centre	ca. €12 million per centre over 5 years (PLN 50 million)	€687m in total over five years (15% in grants, 85% in low interest loans)	estimated ca. €750 million for 2013-2016 (44 billion Rubles)
Timescale	Scheme set up in 2001 2002 (13 centres) 2007 (8 centres) Ten year contracts if successful mid-term review	2012-2017(6 centres) 2014-2019 (4 centres)	2009-2014	Selection in 2013, annual evaluation during 2014-2018
Objective	Establish time-limited centres of excellence in strategically important fields of research characterised by focused, long-term research efforts of a high international calibre	Promote research excellence in research and teaching and improve Polish HEI rankings	Creating "strategic aggregations" of HEIs to enable these institutions to develop an international reputation for excellence	Maximize the competitive position of a group of leading Russian universities in the global research and education market
Modality	Open competition between universities Decision by funding council	Research units submit proposals (typically in consortia) Successful centres selected by Ministry- nominated experts	International jury Open competition: 51 applications, 18 pre-selected, 5 successful	 Open competition: 54 applications, 15 selected universities Evaluation by Russian and international experts Criteria: current ranking position, bibliometrics, internationalisation indicators, external funding Set up of governing board overseeing rector's activity for selected universities
Main source	Research Council of Norway website	PAP – Science & Scholarship in Poland	Ministry of Education, Culture and Sports	5-100 Project website http://5top100.ru/

The European University Association (EUA) is the representative organisation of universities and national rectors' conferences in 47 European countries. EUA plays a crucial role in the Bologna Process and in influencing EU policies on higher education, research and innovation. Thanks to its interaction with a range of other European and international organisations EUA ensures that the independent voice of European universities is heard wherever decisions are being taken that will impact on their activities.

The Association provides a unique expertise in higher education and research as well as a forum for exchange of ideas and good practice among universities. The results of EUA's work are made available to members and stakeholders through conferences, seminars, website and publications.

