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2. DOES SIZE MATTER? – THE EXAMPLE OF THE "EXCELLENCE INITIATIVE" AND ITS IMPACT ON SMALLER UNIVERSITIES IN GERMANY

BACKGROUND

The German Excellence Initiative (GEI) was introduced in 2007 with the aim of considerably increasing excellence in university research. It is a strategic, government-led response to the fact that research and higher education are becoming increasingly global, competitive for reputation, funding, professors and students – and therefore dependent on the prestige and visibility of the institutions in which they are carried out.

In a nutshell, the GEI can be characterised as follows:

- GEI is targeted, in its core element of 'institutional excellence', at entire universities, not individual Schools or departments, with the intention of creating 'top world-class-universities' in Germany. *Fachhochschulen* – universities of applied science – which focus mainly on teaching and applied research, cannot apply. Networks of cooperating universities, e.g., the three major universities in Berlin (Humboldt, Free and Technical University) or the two in Munich (LMU/TUM), are also excluded, as the primary intention was to encourage competition between institutions.
- It is focused almost exclusively on research performance. Teaching and learning have been only marginally recognized in the second round of the competition.
- The programme brings additional 'fresh' money into the universities: an extra 1.9 bn. € for the first funding period of five years, another 2.7 bn. € for the second period from 2012–2017.
- GEI is funded jointly by the federal state (*Bund*) (75%) and the *Länder* (25%), thus allowing the *Bund* to circumvent constitutional restrictions and pour additional money into the underfunded HE system.[1]

When the programme in its current shape runs out in 2017, it will have brought an additional 4.6 bn. € into German universities. Within the federal Constitution of Germany the right to and responsibility for institutional funding of higher education institutions (HEIs) lies exclusively with the *Länder*, who traditionally hold in high regard their independence in matters of education and culture. The GEI is an exception to this rule as it is a joint financial effort of the federal government and

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the *Länder*. This has created an opportunity to compensate for the imbalance in HE funding caused by differences in economic strength of *Länder*. Perhaps even more importantly, it has set a precedent for a constitutional reform that came into place in December 2014 (Bundesministerium für Bildung und Forschung, 2015). The GEI also has moral support from all major non-university research organisations in Germany such as Max Planck, Helmholtz or Fraunhofer-Institutes. This is remarkable, as much of the world-class research in Germany is conducted in research institutes outside the universities, which makes them both competitors and cooperation partners for universities. In supporting the GEI, these organisations recognise the central role of universities in the research system and their need for additional support.

The GEI provides funding for three programme lines:

- *Graduate Schools* with an annual sum of 1–2.5 million € and a total budget of 100 million € over all funding periods 2007–2017.
- *Research Clusters* (large networks of cooperation between university, research institutes and industry) with an annual sum of ca. 6.5 million € and a total budget of 487 million €.
- *Institutional excellence* (*Eliteuniversitäten*), rewarding innovative strategic concepts and institutional management with the aim of securing sustainability with an annual sum of about 13–20 million € and a total budget of 352 million € (see Gemeinsame Wissenschaftskommission, 2005; Wissenschaftsrat, 2009; Deutsche Forschungsgemeinschaft, 2010).

Initial target numbers were for 40 graduate schools, 30 research clusters and 10 awards for institutional excellence.

The GEI has attracted a lot of attention from policy makers in other countries such as France, Spain, China, Korea and Japan, all of which have initiated their own programmes to build "world class universities" (Shin & Kehm, 2013). But compared to other programmes it is unique in a number of ways:

- Unlike the RAE/REF in the UK, which is also focused on rewarding excellence in university research but does so by re-distributing an existing budget, the GEI brings a substantial amount of additional funding into the universities (see Wissenschaftsrat, 2015).
- The sums handed out are large enough to give institutions a real boost beyond the gain in reputation and visibility, unlike the much smaller schemes in France or Spain.
- Still the GEI, being an open competition, is much less rigorous than similar plans in China, which have a very clear focus on creating a few permanent elite institutions.
- Unlike the Netherlands, Germany does not aim to improve the system as a whole (Klumpp et al., 2014).

SIZE MATTERS: CORNERSTONES OF A POLICY OF VERTICAL STRATIFICATION

Ever since the early 1990s, policy makers and peer-led advisory councils in Germany as well as at European level have called for measures to increase the global competitiveness of universities, building a few very large, internationally visible and exceptionally well-funded 'beacon'-universities and encouraging business-like management structures. This policy was based on an assumption that was never seriously challenged, namely that the size of an HEI determines its ability to achieve excellence, and that only the largest universities (in terms of student numbers, range of disciplines, staff and, above all, funding) would ever be able to compete for world class status. As early as 2006 the then President of the *Deutsche Forschungsgemeinschaft* (DFG), the main distributor of federal research funding for universities, set the agenda by saying: "Among the 50 best universities of the world there can be no more than two or three in Germany" (Winnacker, 2006). Initially, there was little doubt about what it would take to create such world-class universities. The strategy was determined by the reputation race in international rankings. The priorities are: first, a focus on entire institutions rather than schools or departments, as reflected in virtually all international rankings, and, second, a selection process of 'informed peer-review' including classic performance indicators such as the total volume of third-party research funding, impact factors and citations as the main excellence criteria.

As a consequence, financially powerful large universities with technical and medical (life-science) schools have a great advantage over smaller universities with a focus on the less financially potent humanities and social sciences with less money and public visibility (Gerhards, 2013). The consensus underlying the GEI and the shift from a competition of researchers and projects (as for DFG-funding) to a competition of entire institutions has been very adequately described as follows:

> The Excellence Initiative, jointly supported by the *Bund* and the *Länder*, is an ambitious programme for the support of top class research in Germany. It is evidence of a paradigm change in German higher education policy. Up to now, this was governed by the underlying assumption of egalitarianism… Under those conditions, differences in profile and quality had but little opportunity to develop, while now the EI encourages competitive, research-led differentiation within the higher education system. (IAG, 2010, p. 35)

The GEI has sparked a substantial and remarkably critical debate on the role of institutions vs. individual research, on the growing impact of external governance by policy makers at national and European level, and on the challenges to internal governance for HEIs in times of increased international competition. Critics (e.g., Münch, 2007) have pointed to the dangers of a shift from the quality and impact of the actual research/researcher to size and visibility of institutions. Even if one does not share the severe criticism of "neo-liberal" concepts (Shin & Kehm, 2013, p. 1) in

higher education policy, it has been shown that a policy targeted at creating world-class institutions rather than research projects becomes a self-fulfilling prophecy, as it will be easier for large, well reputed universities to attract funds, staff, students and partners for research cooperation (Schreiterer, 2010, pp. 103–104).

But there are more issues that may trouble the GEI: for once, the German Constitution is very clear about the independence of teaching and research in German higher education. This means that linear, business-like managerial structures and strong institutional leadership cannot be introduced even in very large universities in Germany, as is the case in Anglo-Saxon universities, and as were introduced in Denmark some years ago. All leadership and all strategic and financial decisions that concern teaching and research need to be validated by representatives of the academics in each university, i.e. by the Academic Senate. This was only very recently confirmed by a ruling against a professional governing board in one of Germany's major medical schools (Bundesverfassungsgericht, 2014). It has been pointed out by Salmi (2009) that the three most relevant preconditions for world-class universities are: concentration of talent, abundant resources and favourable governance. The federal higher education system in Germany has considerable weaknesses in all of these areas. These will not be fundamentally remedied by the GEI, as the funding there, even though it is substantial, comes only for a limited period and universities will be thrown back upon their own resources afterwards.

DISCUSSION: REFORMING THE REFORM – NEW PERSPECTIVES AND STRATEGIES FOR SMALLER UNIVERSITIES

The GEI in its current shape will come to an end in 2017, and it is still largely undecided what exactly will follow. The first outlines of a new policy are just emerging, the cornerstone being no less than the above-mentioned change in the German Constitution that will make it easier permanently to channel additional, federal funding into the *Länder*-governed universities. There is also talk about paying more attention to teaching, and the influential Council of the Sciences and Humanities (Wissenschaftsrat, 2013) is tirelessly recommending more attention to 'functional' horizontal stratification in addition to vertical competition. But currently the debate has not addressed what may be the key issue: what kind of a research and higher education system is it that Germany really needs, that fits the strengths and characteristics of the traditionally de-centralised German system? Smaller universities are a key player in higher education worldwide, and it is high time to address their role and their potential contribution to the German higher education system in their own right.

Taking a Fresh Look at Vertical Stratification

The GEI drew a lot of public, political and international attention to the higher education sector. Therefore it was very effective in encouraging vertical stratification,

leaving especially those universities that were successful in the third round as the top winners with a substantial reputational head-start in future competition (Schreiterer, 2010, pp. 103–104). Even professionals had underestimated the impact of the "excellence" label, the reward for institutional excellence in the third GEI round, both nationally and internationally. The press reported almost solely on these universities: "red carpets were rolled out" for the winners, as the then Rector of one of the successful institutions put it, for cooperation agreement from leading institutions worldwide. The former President of *Deutsche Forschungsgemeinschaft* (DFG), Matthias Kleiner, and of the *Wissenschaftsrat*, Peter Strohschneider frequently urged journalists, politicians and academics in press conferences and speeches to avoid the term "elite university", reminding press and public that much of the actual research excellence was identified in the less prestigious "Cluster" and "Graduate School" programmes.

Second thoughts arose soon despite the general enthusiasm: what about the importance of encouraging excellent teaching, what about the Humanities, what about the smaller universities that have traditionally formed the backbone of Humboldtian academic excellence in the federally organised state of Germany? Some of these concerns were taken on board when re-shaping the GEI for a second round in 2012. But the real shock came when it emerged that some of the *Exzellenzuniversitäten* had not been able to renew their status, as was the case with Karlsruhe Institute of Technology (KIT), the first merger of a university and a Helmholtz-Institute, or with the University of Göttingen. The Excellence Initiative is meant to be an on-going open competition in which universities can rise or fall, effectively 'downgrading' them. A formal evaluation will be conducted in 2015, but it has already become obvious to insiders and experts (Schreiterer, 2010, p. 112) that to lose the 'excellence' seal may be potentially more damaging than the initial gain in reputation upon winning. It affects, to name just a few of the impacts, the ability to make permanent academic appointments, to attract additional funding and to enter into prestigious international partnerships.

In December 2014 a consensus was reached to continue the GEI after 2017 (Gemeinsame Wissenschaftskommission, 2014), but it is still to be determined what conclusions policy-makers will draw from the evaluation and current research on the impact of GEI. Beyond trying to save and continue some of the most successful projects, it is becoming obvious that the formerly homogeneous university sector itself is breaking up into competing pressure groups. The large, research-intensive and rich universities have organised themselves into the "U15" group; the large technical universities are represented as "TU9". These universities are lobbying jointly, using their influence to ensure that the bulk of state funding will go to them and that public funding efforts will focus on them to help achieve world class status.

This has – not unexpectedly – sparked severe public criticism from the other institutions, which find themselves deprived of the opportunities they feel they deserve. A peer-group of medium-sized universities, which had formed after the first GEI round in 2007, has been revived recently but has not yet defined an agenda.

Similarly, out of the *Fachhochschule*-sector, a group of seven research-active institutions (UAS7) formed some years ago, is claiming their right to be more than 'teaching-only' institutions and insisting that their funding and legal framework should be reformed accordingly. This has led to some changes, allowing universities of applied science to be more research-active and facilitating cooperation with universities in doctoral training; but, in general, the binary system is still in place.

All this shows very clearly that Germany needs a strategy for the higher education sector as a whole which defines complementary roles for all types of institutions and reduces competition to the areas in which it is productive and beneficial.

Re-Discovering the 'Middle'

The winners of the GEI were very clearly the big, research-intensive '*Volluniversitäten*' that cover a wide range of disciplines including the particularly well-funded medical and technical sciences. In the run-up to the second competition, for which results were announced in 2012, concerns about unintended side effects on teaching within smaller institutions had been raised. There were only two mid-sized universities (Bremen and Tübingen with less than 25,000 students each) and a small one (Konstanz with less than 9,000 students) among the winners.

It is remarkable and unique in international comparison that, despite this increase in competitiveness, the German HE system tends to be viewed not so much as that of a linear ranking but rather as that of a pyramid, with a broad base narrowing into a narrow tip. There have been efforts to draw attention to the 'middle' of that pyramid, trying to get away from the notion that 'middle' equals 'mediocrity'. This has led to some remarkable mixed metaphors, most famously by Andreas Voßkuhle (2011), President of the Constitutional Court and President of Freiburg University, before he was appointed to the third most important position in the State. He coined the oxymoron of a 'broad tip' which is fed and supported by a fertile intermediate level: "It is particularly the middle that gives room to individualisation and multiple developments. It is the soil on which not only few but very many can develop with their specific talents and abilities, thus creating a broad tip." The dilemma which Voßkuhle addresses here is crucial when considering the lessons to learn from the GEI: the need to define the 'middle' of a higher education system, to appreciate its role and to re-define institutional strategies to grow, improve and succeed in accordance with their mission.

As long as policy makers, funding bodies and university administrators strictly and uniformly adhere to a reputational hierarchy focused on size, research intensiveness and funds, those who do not make it to the top in such ranking will be primarily perceived – and perceive themselves – as losing out: either because they did not even feel able to apply in the GEI, or because they were not among the winners. Voßkuhle (following the *Wissenschaftsrat*'s recommendations from as early as 2000) suggests adopting a policy by which the 'middle' carries responsibility for training future top researchers and developing ideas on which the few world class universities can

draw for talent and research innovation. This would be a dual role, as it would also encompass a strong commitment to teaching and some regional involvement. This seems feasible, especially as – unlike in the US and UK – the German market for academic careers is still quite open and allows for upward mobility between 'middle' and 'top' universities (see Baier & Münch, 2013, pp. 131–132).

This may be a realistic option for many institutions. They are smaller, poorer, less research-intensive, more teaching oriented, more regional, more applied; and they differ from top universities in terms of the number of students, the student-staff ratio, the range of disciplines, the number of programmes offered, research co-operation, involvement in knowledge transfer, regional involvement, outreach activities, internationalisation, financial situation or extent of institutional autonomy. Yet, some of these differences might be viewed as strengths and 'unique selling points', though not adequately recognised by policy makers, academic leaders and the public in Germany. As Klumpp et al. (2014) show, the Netherlands were relatively more successful even in international rankings through a policy that aimed to support the diversity of institutional profiles rather than top universities only. It can justly be assumed that a strategy for a successful higher education system needs to build on the recognition and encouragement of all these characteristics (and more) as strengths rather than weaknesses, if it is to be successful in the long term perspective. But much depends on the vision and strategy that smaller universities choose for themselves. It is a positive unintended side-effect of the GEI that smaller universities have been encouraged to re-think their role and to identify strategies for themselves that enable them to excel in competition with larger institutions. On a very general note, three such approaches can be identified:

- Expanding: Creating relevant size through cooperation.
- Focusing: Concentrating resources and strategic efforts in a few (cooperating) disciplinary fields of excellence in order to become globally competitive in these fields.
- Marketing: Smaller universities can provide a more personal style in management and student supervision; they feature flat hierarchies and a general atmosphere of personal attention, involvement and participation for staff and students, thus creating a positive spirit that may be beneficial for recruitment and academic productivity.

A successful strategy often is a mix of these approaches. It is worthwhile to look at them individually as they require different means.

Expanding: Creating 'Critical Mass'

For many years it has been a largely undisputed axiom of higher education policy that institutional size is perhaps *the* indispensible prerequisite for excellence. The notions associated with 'size' are visibility, reputation, privileged access to funding, political influence and attractiveness to external partners and highly qualified staff and

students. Thus in a creative interpretation the term 'critical mass' was borrowed from physics to describe an effect by which universities had to grow beyond a certain (yet undefined) limit in terms of money, professorships, students and disciplines to stand even a chance of competing successfully in the league of 'world-class-universities'. In response to this analysis a number of countries, among them Germany, France and Japan, adopted a strategy of 'capacity upgrading' to empower their universities, while other countries chose alternative routes of enforced internationalisation and capacity "incubation" (Shin & Kehm, 2013, p. 10), both of which are also available to less economically powerful systems.

Yet long before the GEI focused on strengthening a few individual universities, policy makers in Germany discussed the possibility of improving the HEIs' academic potential by creating "critical mass" through cooperation rather than through enforced competition, giving smaller universities and research institutes the opportunity to realise and boost their potential. Already in the year 2000 the *Wissenschaftsrat* published "Theses on the Future Development of the Higher Education and Research System in Germany", which called for better cooperation between universities, *Fachhochschulen*, research institutes and the private sector. It recommended that additional funding should be made available to boost research capacity in joint projects, make attractive offers to top people and improve knowledge transfer.

Much of this agenda has become reality over the last 15 years in Germany. But the change has largely gone unnoticed, as it was not reflected in rankings that attracted the attention of a wider public. With the support of national funding programmes such as the "*Pakt für Forschung und Innovation*" (Pact for Research and Innovation) universities and research institutes have initiated projects and established graduate Schools, even institutionalising their cooperation in some six "Science Campi" – the number is growing. Two universities, Karlsruhe University and the largest Medical School, the Charité in Berlin, have been merged with Helmholtz Institutes. Expertise in Health Research has been consolidated in so-called "*Zentren für Gesundheitsforschung*" (Centres for Health-related Research), large-scale cooperation between the public and the private research sector is encouraged through a national programme, and these so-called "Clusters" also form one line of the GEI. But although smaller universities are successfully competing in these initiatives, there is no evidence that they have been able to capitalise on their success in the reputation race.

The cooperation with research institutes like Max Planck, Helmholtz, Fraunhofer and Leibniz-*Gemeinschaft* offers flexibility and better funding opportunities to many of the financially starved universities. Those institutions, on the other hand, already compete among each other for their share in the market and for the best relations with universities which supply them with young talents. This looks like a classical win-win-situation, but unfortunately there are side effects that make the picture look less rosy. Academics in joint appointments often carry less teaching responsibility

if based at an external institution. Universities are in danger of being drained of staff (offering less attractive working conditions), projects and even entire research units by their independent partners who are much better funded (largely by the federal ministry). Financially strained *Länder* like Bremen even deliberate openly the option of handing excellent university research units over to those organisations in order to save funds.

A second set of 'strings attached' concerns the internal governance of the cooperating structures. Traditionally the German university is not a place of linear hierarchy and accountability. Decision making powers in all academic issues are subject to double legitimation by senior management and the Academic Senate, thus reflecting the strong position of academic freedom as laid down in Article 5.3 of the German constitution. This situation becomes more complicated if a university develops a number of additional 'centres of gravity' in addition to the traditional structure of faculties and departments. Successful research centres with external partners will tend to set their own agenda; they will bring different institutional cultures into the university; and their leaders, especially the successful ones, will see it as their natural right to influence institutional decisions so as to benefit their project – and they will have the power to do so (Gaehtgens, 2010, pp. 50–51).

To conclude: Increasing visibility and research potential through cooperation is certainly one of the best options for smaller universities that wish to develop their potential. But it is a strategy that will backfire unless the university is very much in the driving seat with a mature concept and an internal consensus about the road to take. If the university can capitalise on its strengths, set the agenda, choose the partners that meet its requirements, consciously agree on the necessary compromise in Senior Management and Academic Senate and adjust its internal governance, it will be a strong partner in the cooperation, which will be to the benefit of all partners involved.

Focus on Areas of Excellence

A realistic alternative to growth is, for some universities at least, the option to build excellence in a limited range of activities, carrying these to international competetiveness by bundling resources and consciously reducing activities in other areas. There are a number of options for this strategy:

- Focus the mode of academic involvement: It has been suggested that smaller universities that are not competitive in international research should focus on research-informed teaching and carry that to excellence (Wissenschaftsrat, 2013, pp. 49–50). Smaller universities tend to see this option as a danger looming, the reason being that there is currently no reward system or incentive that will recognise teaching at university level to the same extent as research. By taking such a step, universities would currently lose reputation and be perceived by their members and stakeholders as being 'reduced' to *Fachhochschule*-status.

- Focus on one group of disciplines such as medicine, law or economics. This is a model that a number of private universities such as *Bucerius Law School* in Hamburg and the *Frankfurt School of Finance and Management* have adopted quite successfully. In the public sector this mono-disciplinary structure is a tradition for schools of sports, art and music, but less for the traditional academic disciplines. The concept of *universitas* in university is still very strong. Even medical schools tend to maintain their complex relationship with other parts of the university for reasons of research integration.
- Building profile by prioritising: This is a path on which a number of smaller universities have embarked with considerable success. Good examples are the University of Bielefeld, which has been a hub for the social sciences for several decades without giving up its range of disciplines including teacher training, or Konstanz University, which was the only small university to win excellence status as a centre for the humanities.
- Other universities are beginning to mix disciplinary focus with a specific profile in the mode of delivery. Lüneburg University for example introduced new modes of teaching such as a first-year general course and is now at the forefront of introducing MOOCs; or Freiburg University, which gained excellence status for its integrated concept of graduate teaching and postgraduate research.
- Some universities are experimenting with other profiles, often as 'added value' to a specific teaching or research-profile, such as diversity, internationalisation, ecological concepts or bilateral cooperation; or they aim to attract staff and students by building an effective, efficient and caring environment.

CONCLUSION: FUNCTIONAL DIFFERENTIATION AS AN ALTERNATIVE TO VERTICAL STRATIFICATION

Despite many valuable insights into the need to develop the German higher education system as a whole, the incentives and reward systems currently do not encourage multidimensional development. As has been shown in this article, there are two strategic approaches competing rather than complementing each other: There are those that believe that building a few world-class universities with top positions in the international rankings will create enough academic and economic impact to uplift the entire system, and there are those who promote diversity and functional differentiation. In truth, these are not alternatives but two sides of a coin. It is by no means new to say this, but neither institutional nor political policies seem to take it seriously. What can be seen in Germany is a cultural gap between those who adhere strictly to the traditional ideal of independent, curiosity-driven research as an aim and value in its own right, and those (among them many stakeholders) who focus on the wide range of contributions that universities make to society at large: in research and innovation, teaching, training and knowledge transfer.

The lesson to learn from GEI is clear: Only if this gap can be bridged, if a consensus on the multiple values that universities of all sizes provide for society

can be reached, it will be possible to create incentives and rewards that will make it attractive for universities to really choose between different profiles. The GEI created one single pyramid which represents research performance. That is better than linear rankings, since it draws attention to the base and middle. But only if there are several pyramids of equal reward and visibility, reflecting excellence in the various functions that universities perform for society, will it be possible to effectively reward universities of smaller size and excellence in specific areas.

NOTE

[1] In most recent OECD-statistics, Germany still ranks only 22nd of 30 countries on expenditure for tertiary education as a percentage of GDP and clearly below the OECD average (see OECD. *Education at a Glance 2014.* Paris, France: OECD).

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