

# Is there a European university model?

## New evidence on national path dependence and structural convergence

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**Conference Session:** Pitfalls and perils of internationally comparative higher education indicators: experiences and results from international research projects

**Research Subject:** The issue of diversity and differentiation in higher education has been repeatedly debated in the literature (Meek et al., 1996; Huisman, Meek and Wood, 2007). Analyzing a large dataset containing the full census of European higher education institutions which was constructed by the authors in the context of the EU-funded EUMIDA-project, this paper offers a fresh perspective on the discourse by using a quantitative approach. This allows a dedicatedly empirical assessment of diversity and differentiation in higher education institutions in Europe. Specifically, our objective here is to analyze whether there is a “*European University Model*” that overarches the national systems of higher education. Furthermore, we investigate also differences between the countries. In particular, we are interested in differences with respect to the *permeability* of the national systems, that is, whether legally or formally differentiated types of Higher Education Institutions (HEI) may actually show similarities in observable activity profiles or whether their differing formal organization induces a strict separation of activities.

**Data:** The database has been developed in the framework of the EUMIDA project under contract of the European Commission and includes 2 457 institutions in 27 countries, covering approximately 90% of the total number of students in tertiary education (ISCED 5 and 6 level).

The project was pioneered by an exploratory independent study (AQUAMETH), carried out between 2004 and 2009 under the Network of Excellence PRIME, which demonstrated the feasibility of integrating administrative information across European countries on individual universities, addressing a number of methodological and definitional issues (Bonaccorsi and Daraio, 2007). The EUMIDA-dataset provides information primarily on the activity profile of universities, in particular on their undergraduate and post-graduation teaching activities, their research-participation, their internationalization, and their organizational set-up. This information on the activities forms the basis for the following analysis.

**Methodology:** With respect to the question of the existence of a European model of higher education we make use of recently developed model-based clustering (compare e.g. Fraley and Raftery, 2007), where the analysis is performed on the previously described activity variables. Unlike regular methods (e.g. hierarchical Ward-clustering), model-based methodologies formulate the clustering problem in statistical terms and estimate the cluster configuration via Maximum Likelihood. The advantage is that this allows identifying the optimal configuration, implying that also the *number of clusters* is statistically determined rather than set by the researcher in advance. Thus the results are much less prone to arbitrary and subjective decisions. We use this modeling strategy to simultaneously determine the optimal number of clusters of different types of HEIs in Europe as well as the shape of these clusters. We also present some robustness checks. With respect to country differences in permeability we compare the observable activities profiles derived from the cluster analysis with the legal or formal categorization of the HEIs. Divergence between both classifications (e.g. if in one country the Universities of Applied Sciences largely invests in research) is taken as a sign of a greater degree of permeability.

**Results:** Our main findings suggest that there is a functional divide into higher education institutions (HEIs) in which *research and teaching coexist* and younger (usual small) *education-only organizations*. A further important result is that we do not find empirical support for the existence of other commonly applied and seemingly intuitive classifications, such as “the research university”. Despite some basic similarities in the European HEI landscape, however, we also find national differences and diversity: in particular we can show that in some countries (e.g. Norway, Portugal, Slovenia, Slovakia) the cluster configuration follows from the legal classification of the institutions, i.e. research-active HEIs are universities and those that fall into the cluster of undergraduate teaching-oriented are also legally classified as following a college model (e.g. Universities of Applied Sciences or the Polytechnical Universities). In other countries (e.g. Germany, Hungary, Cyprus, Switzerland) the systems appear to be more open in the

sense that also the HEIs institutionally categorized as following college models often have a research mission. Based on these results we argue that there seems to be a common mode of setting up the national HEI in Europe. This “European University model” is a differentiated system, and consists of teaching-only institutions and those that pursue both teaching and research tasks. There is no obvious strict and institutionalized differentiation along the lines of research, not precluding of course that one HEI may be more research-active than another. Notwithstanding this overall observation, some important differences between the national systems exist. In particular, we can show that in some countries like Germany, Hungary, Cyprus, and Switzerland (most likely also the Netherlands) the existing institutionalized boundaries are more permeable, while several other systems (most prevalent in Eastern Europe) are built on a strict division, implying that path dependency may be very important. Likewise, in the more open models, we interpret the results as a possibility for some degree of institutional convergence within the national systems, since differentiation is at least not enforced by law (acknowledging of course that rules and laws, e.g. when relating to resources, may create de facto differentiation).

## **References**

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