## Chapter 2

# Strategic Management of Academic Human Resources: A Comparative Analysis of Flagship Universities in Norway, Finland, Switzerland, and Austria 

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#### Abstract

This chapter investigates whether and how institutional autonomy enhances strategic management of academic human resources. National regulatory frameworks, available resources, university policies, and practices at the working floor are compared in four European flagship universities. Disciplinary affiliation is taken into consideration through the selection of history and chemistry. The cases reflect different trajectories where substantial changes have been implemented in governance systems when it comes to centralization of decision making, to standardization of procedures, to re-configuration of actors and their room to maneuver. While professorial self-governance in personnel matters remains significant, new boundary conditions constrain substantially choice options in accordance with national, institutional, and disciplinary features. Uncertainty, identity, and flexibility emerge as major dimensions in human resources management, pointing to tensions but also to opportunities for strategic change.


## INTRODUCTION

The specific nature of universities as organizations has been stressed in scholarly debate: following Cohen and March work on academia (1974), university distinctive characteristics would allow organizational change only to a limited extent (Whitley 2008, Musselin 2006). Hence, educa-
tion and research cannot be coordinated and controlled because of their inherent unclearness and ambiguity (Cohen \& March 1974, p. 3). On the one hand, core operations of teaching and research are unclear processes which cannot be copied, prescribed or reproduced. On the other hand, they are ambiguous, as precise goals cannot be defined or scheduled. Multiple uncertainties
influence knowledge production and dissemination (Musselin, 2006; Gläser, 2007) and hamper the possibility to build a strategy based on distinctive organizational capabilities (Whitley, 2008; Bonaccorsi \& Daraio, 2007).

Besides, the scientific community has its own distinctive rules characterizing its uniqueness and the conditions of its existence (Merton, 1973). In the professional bureaucracy described by Mintzberg (1979, p. 348) the academic oligarchy coordinates university functioning by establishing standards of quality and by determining entry requirements for new members, based on distinctive skills and training. More specifically in university personnel policies professors apply theirown (collegial) system in order to recruit and promote their peers. This is based on scientific and disciplinary criteria that traditionally shape the overall assessment of candidates. More recently, the increasing role of the university board, of the rectorate and of the central administration as well as the formalization and standardization of procedures of recruitment, have put under pressure these practices historically carried out by professors (Fumasoli, 2011, 2013; Fumasoli \& Goastellec, 2014).

At the same time, in the last decades public authorities have granted, at different degrees and paces, institutional autonomy to higher education institutions (Brunsson \& Sahlin-Andersson 2000; Paradeise et al., 2009; Huisman, 2009; Kehm \& Lanzendorf, 2006) with the explicit intent to increase their strategic behavior (Verhoest et al., 2004). Nowadays goals are set for the whole organization; financially, block grants are provided according to contracts of performance. In a governance perspective, university leadership seems to profit from increasing power, while external systems of evaluation have been introduced to standardize education and research (for research see Whitley \& Gläser, 2007).

It is then relevant to understand how universities are coping with their human resources ${ }^{1}$, to what extent increasing institutional autonomy
has transformed the traditional practices held by the academic profession, where criteria for recruitment and career advancement were based on academic merits and university politics. In sum, it is significant to observe whether and how strategic management of human resources has been developed. The objective of this chapter is to investigate how and to what extent personnel policies have been modified by the recent reforms in European higher education systems. Personnel policies have been addressed as a key organizational area to control and coordinate academic staff, which represents the most important asset for universities. By shedding light on the (shifting) authority between academics, academic leaders and external stakeholders in the management of human resources and the dynamics underlining such changes, it is possible to understand change and stability in higher education. To do so regulatory frameworks, university policies and practices at the work-floor level are analyzed through a multi-level case study, which takes into account national systems, institutional settings, as well as departments, conceived as organizational structures embodying disciplinary fields.

The sample comprises four European Flagship universities: University of Oslo (Norway), University of Helsinki (Finland), University of Basel (Switzerland) and University of Vienna (Austria). Two disciplines have been observed: chemistry (Oslo and Helsinki), history (Basel and Vienna). A Flagship university is defined as a comprehensive, research intensive university, located in a major urban area. In general it is among the oldest and largesthigher education institutions of its country. This focus on 'flagships' has implications for the nature of organizational change under scrutiny here, since this category of universities can be expected to be given more leeway than others because of their scientific leading role at the national level (Fumasoli et al., 2014).

The following research questions are addressed:

1. What are the main factors that over the last 10 years have affected the organised university settings and institutional characteristics when it comes to human resources management?
2. How is the increased institutional autonomy in personnel policies interpreted and practised inside European Flagship universities?
3. How do intra-institutional governance relationships play out?

- To what extent are university internal and external actors involved in key decisions on human resources?
- How do they differ according to national higher education systems, universities and disciplines?

DRIVERS OF CHANGE: POLICY REFORMS, UNIVERSITY STRATEGIES AND ACADEMIC TRADITIONS

We propose an institutional approach to university autonomy (Olsen, 2009; March \& Olsen, 1989, 1995). An institutional approach conceives of institutions as playing a partly autonomous role as well as acting independently, that is beyond environmental determination and strategic choice. In the broader perspective on political and social order university legitimacy is shaped by connections and interdependencies with other actors and institutions (Gornitzka et al., 2007; Olsen, 2009). Moreover universities as institutionalized organizations are infused with values beyond the technical requirements of their task (Selznick, 1957), in this sense their resilience to external influence has to be analyzed against their distinctive structures, routines and identities (Fumasoli \& Stensaker, 2013).

Against this backdrop, three main drivers of institutional change are conceptualized here as political ambitions, that is reforms of higher education in the national system; organizational
strategies, which represent leadership intentionality and rational definition of goals; and academic traditions, or the different cultures and identities in which universities are traditionally embedded.

Political ambitions reflect the rationale of policy reforms in highereducation. This resonates with the assumption that granting increasing institutional autonomy will enhance university effectiveness, efficiency and economy. Free to manage itself, the university will develop a strategic profile, which allows it to compete with other universities. When it comes to human resources, reforms have attempted to centralize, standardize and formalize personnel policies. This means that a shift in the authority from professorial oligarchy to university leadership has been promoted. This should be visible in recruitment processes, which determine entry to academia and have been traditionally controlled by professors. Not only university leadership has been strengthened both at levels of rectorate, of the deans and of the heads of department. Also the university administration has acquired increasingly importance in the implementation of procedures. The re-design of regulatory frameworks is expected to push universities to redefine and implement human resources management in order to support their organizational strategy. For instance, Flagship universities aim to attract the best international researchers in order to compete in the ranking race.

Organizational strategies have emerged as instruments in the hands of academic leadership to shape a specific profile of the university. Here the assumption is that the more a university positions itself strategically, the more it can compete in selected arenas. With respect to personnel policies, it is expected that strategies link organizational objectives to incentive systems to recruit and promote high performing academic staff. This way academics are supposed to concur in enhancing the ambitions of their institution. When it comes to control systems, universities try to cope with a highly diversified academic workforce, which act autonomously according to its professional
and disciplinary identities. Flagship universities are expected to put in place incentives for excellent academics - such as performance-related salaries, research funding allocation, additional personnel, increasing academic freedom, minor teaching load. Symbolic and material rewards are also expected to play a role in differentiating high from low performers.

Academic traditions entail academic cultures, identities, practices and routines that make universities resilient organizations (Maassen \& Olsen, 2007). In this respect, norms and values of both the academic profession and the disciplinary affiliation, are expected to hinder (but also enable) desired change by reform and managerial intentionality. The structure of academic careers has been in the hands of academics: they decide the different stages, the criteria for evaluation, the degrees and expertise necessary to advance. Even though national regulatory framework contribute to shape academic careers, these practices represent a crucial prerogative of academics, for instance in the case of the Habilitation in countries of German tradition (Fumasoli \& Goastellec, 2014). It is then reasonable to expect that academic traditions are difficult to change and that they intertwine with reforms and strategies giving rise to diverse and unexpected outcomes were formal and informal rules, norms and values come into play.

Finally, structural conditions are taken into account in our comparative analysis: financial situation as well as student numbers constitute boundary conditions to actors' behavior, since universities can thrive only when material resources are available. It is expected that university main public funding - the block grant - is based on student enrolment, thus affecting substantially financial conditions of universities and departments. At the same time, intensive competition for the acquisition of external research funding may limit research activities within departments.

Along this line, depending on national, institutional and disciplinary characteristics, different
types and degrees of change are expected. Central in this paper is to understand how universities adapt to pressures for change and develop their strategic management of human resources.

## PERSONNEL POLICIES IN ACADEMIA

Human resources are fundamental for universities, which need highly qualified individuals to produce and transmit scientific knowledge. Hence, personnel policies represent a major dimension when examining how and to what extent university leadership (members of rectorate, deans, heads of department) are able to manage academic staff. Indeed this has been traditionally controlled by the academic profession, which prescribes skills and training to enter academia. Even existing national regulations, which usually define broad criteria, are negotiated between public authorities, the academic profession and universities, through their associations, e.g. national rectors' conferences and academies. Thus, the shifting authority over recruitment and career advancement comes into play while observing universities as organizations, for managerial control on human resources is instrumental to organizational change (Mintzberg, 1979, 379).

Personnel policies are analyzed according to three components: recruiting, reward and control systems (Aldrich \& Ruef, 2006, p. 106). Academic recruitment is a process divided in different stages: defining the need for a position, preparing the call, assessing and selecting candidates and negotiating working conditions with the selected applicant (Musselin, 2005). Academic recruitment, therefore, constitutes an organizational practice within universities: patterns of action are interdependent (e.g. one has to receive applications in order to assess and select a proper candidate). These patterns are collectively recognized by university members who contribute to their enactment (e.g. the heads of department, the professors, the
external experts) and share the understanding of the practice's underlying rationale (Feldman \& Pentland, 2004).

Reward systems are put in place to attract the best teachers and researchers and to help retain them, while the creation of control structures and routines protects internal structure and coherence of the organization. Indeed, reforms strengthening university leadership and increasing institutional autonomy has been designed to mitigate the perceived internal fragmentation of academia, where severalfields, disciplines and sub-disciplines coexist in separated compartments. Procedures related to reward and control systems are performance evaluation, job compensation, and control over workflow. Incentives are usually a mix of material (e.g. salary, infrastructure such as laboratories, technical and academic assistants), symbolic (e.g. reputation), identity-related (sense of personal belonging) components (Aldrich \& Ruef, 2006, p. 106). Control of the core activities can be carried out formally, based on conformity with existing procedures and written rules; through peer culture, by informal socialization of staff; and professionally, by means of internalized norms and formal education at entry. Within academia professional control has been historically prominent, however, strengthened administrative and managerial logics may shift the balance towards formal and peer culture oversight.

## METHODOLOGY: COMPARATIVE CASE STUDY

In order to investigate change in personnel policies according to regulatory frameworks, organizational strategies, as well as in practices at the work floor, a comparative analysis with four cases has been conducted. The cases are constituted by four flagship universities: University of Oslo (Norway), University of Helsinki (Finland), University of Basel (Switzerland), and University of Vienna (Austria). Four departments
were analyzed: chemistry at Oslo and Helsinki, history at Basel and Economic and Social History at Vienna. This selection supports the attempt to balance similarity and variety. Our four cases have several commonalities: they are located in four smaller WesternEuropean countries whose higher education systems are similar as of size, funding schemes, recent reforms and binary structure.

This analysis is based on data from the project European Flagship Universities: balancing academic excellence and socio-economic relevance (FLAGSHIP 212422), funded by the Research council of Norway and coordinated by ARENA, Centre for European Studies, University of Oslo (Fumasoli et al., 2014; Friedrich, 2013). Additionally it draws on data gathered in the framework of EuroAC - The Academic Profession in Europe: Reponses to Societal Challenges, a project of the European Science Foundation and coordinated by INCHER, University of Kassel and on related research (Fumasoli \& Goastellec, forthcoming 2015) as well as previous research of the author (Fumasoli, 2011).

Our data sources are threefold: documents, interviews and statistical data. The documents analyzed are university laws, university statutes and personnel policy regulations, strategic plans. Thirty-eight interviews have been conducted with academic leaders, administrators and academics. All respondents were located within the selected departments, academics where usually senior tenured professors with considerable research activities as of national and international funding. Statistical data has been retrieved from national statistical databases (Norwegian DBH, Statistics Finland, Swiss Federal Office for Statistics, Statistik Austria) and university websites have been accessed. The triangulation of data sources and data analysis has been paramount to derive accurate information on structural conditions, policy reforms, university strategies and academic practices.

Reflecting our analytical framework, the research design has focused on the different ac-
tors' positions in personnel policies and decisionmaking as well as on recruitment, reward and control systems. Interviews (Table 1) have been instrumental to observe how the relevant actors make sense of their roles, of their room to manoeuver, and to shed light on their narrative on ongoing practices.

Table 2 shows the differences among the cases when it comes to size (students, total staff, number of professors) and to annual budget. With respect to departments, there is a significant difference in student numbers between Oslo and Helsinki.

Human resources management is analyzed in the four cases according to the national higher education system and the recent reforms, to the university and department governance and strategy. Recruitment of academics, career structures and actors' configurations are highlighted

## CASE 1: UNIVERSITY OF OSLO, NORWAY

The Norwegian higher education system has eight public universities with about 102,700 enrolled students (2013). It has undergone major changes with the Quality Reform in 2003, which has granted institutional autonomy to universities in relation with their governance structures. In 2005 a law on public and private universities has been approved, providing a common framework to higher education institutions when it comes to accreditation, funding and quality. The funding formula is structured around basic state funding (60\%), students (credits, degrees, international students $-25 \%$ ) and research (partly result-based $-15 \%$ ). Norwegian universities remain part of the public sector (i.e. they do not have legal

Table 1. Interviews

| University | Country | Department | N | Date | Leaders | Academics | Administrators |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| University of Oslo | Norway | Chemistry | 6 | 2013 | 2 | 3 | 1 |
| University of <br> Helsinki | Finland | Chemistry | 5 | 2014 | 1 | 2 | 2 |
| University of <br> Basel | Switzerland | History | 11 | $2010-$ <br> 2011 | 1 | 9 | 1 |
| University of <br> Vienna | Austria | Social and <br> Economic History | 7 | 2013 | 1 | 5 | 1 |

## Table 2. Four cases ${ }^{2}$

| Cases |  | University |  |  | Department |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Students (2013) | Staff *Professors | Budget EUR million | Students | Staff <br> *Professors |
| University of Helsinki | Chemistry | 23,800 | $\begin{gathered} 8,600(2010) \\ * 500(\mathrm{ca.}) \end{gathered}$ | 645 | 800 (ca.) | $\begin{aligned} & 250 \\ & * 16 \end{aligned}$ |
| University of Oslo |  | 27,000 | $\begin{gathered} 6,600 \\ * 793 \end{gathered}$ | 831 | 148 | $\begin{aligned} & 156 \\ & * 26 \end{aligned}$ |
| University of Basel | History | 13,000 | $\begin{aligned} & 3,300 \\ & * 272 \end{aligned}$ | $\begin{gathered} 563 \\ (2012) \end{gathered}$ | $\begin{gathered} 158 \\ \text { (own count - } \\ 2014 \text { ) } \end{gathered}$ | $\begin{gathered} 135 \\ * 9 \\ \text { (own count-2014) } \\ \hline \end{gathered}$ |
| University of Vienna | Economic and Social History | $\begin{gathered} 92,000 \\ \text { (head-count) } \end{gathered}$ | $\begin{gathered} 9,500 \text { (head- } \\ \text { count) } \\ * 423 \end{gathered}$ | 522 | 164 | $\begin{gathered} 57 \\ * 12 \end{gathered}$ |

independence) and their staff - both permanent and temporary - is employed according to public service conditions as in all other Norwegian public sector organizations. Academic staff is basically organized in four positions: PhD student, postdoc, associate professor and professor, whereas associate professor and professor are tenured positions. The structure of salaries is regulated through fixed layers, so that professors' salaries can in principle differ quite substantially, from a yearly minimum of Euro 70,000 to a maximum of Euro 125,000 .

University of Oslo is the oldest university in Norway, founded in 1814 by the Danish king. It is structured in 8 faculties and 55 sub-units (mainly departments). It enrolls almost 27,000 students and has 6,066 staff (2013). Its budget is EUR 831 million, of which 136,5 million comes from external sources (2012). "Strategy 2020" is the central planning document, from which plans at faculty and department level derive. It defines six main objectives that connect to personnel policies: increasing quality, internationalization, interfaculty cooperation, management, improving working conditions and interaction in research. More specifically, it states that the balance between salaries and operating expenses has to be improved, career planning needs to be better organized. In 2013 the department of Chemistry has 155,5 staff (full time equivalent FTE), of which 26 professors. It enrolls 62 students and employs 86 PhD students. Following the quality reform in 2003, the department has been reorganized: research groups have been merged, priorities have been defined. Increasingly incentives have been offered to the best researchers in terms of equipment, administrative and technical support, PhD students and postdoctoral fellows. More flexibility in increasing salaries has also offered the possibility to acknowledge better performance (measured primarily in research project coordination and publications), so that the differences among professors' remunerations can be quite significant. Recruitment procedures are regulated by the Universities and Colleges Act of 2005, thus
they are the same in the whole higher education sector. In principle the university board is the responsible authority, however it can delegate this task downwards to a subordinate body, usually the department. The evaluation of candidates is based on expert assessment in relation to the description of the post and the advertisement. The appointing body can decide in addition whether to hold an interview, a trial lecture, or other tests. Teaching qualifications should be given separate consideration. In special cases an academic appointment can be made without advertisement, if the university board agrees on such a procedure.

At the chemistry department the recruitment process is organized as follows: the retirement of a professor opens the possibility for a new hiring. This is discussed between the relevant research group and the head of department in order to define which profile is needed. The drafting of the call is crucial, since the selection of applicants rigorously reflects the announcement. The head of department has the final word on the call's wording; then, depending on the applications received, he or she decides on the external reviewers, who rank the candidates based on academic merits, i.e. publications. Usually the first three candidates are invited for an interview and a trial lecture. At this point the head of department organizes an interview committee, which includes him- or herself, the head of administration, a relevant professor within the department, and other professors in the faculty. The head of department may check with the references in case of doubt, doing so usually over the phone. It can happen that the ranking is reshuffled after this stage. The departmental board has to approve the final decision and the faculty also formally agrees, mainly by checking that the process complies with rules and regulations in the university (for instance gender equality). At this point the head of department starts the negotiations, which include the definition of the salary layer and the starting package: equipment, research assistants and starting research grant. It is not rare that international applicants drop out of
the process, either because it is long (one year on average), because they have other opportunities, or because the negotiations fail, primarily due to the characteristics of the Norwegian system: relatively low salaries in an very expensive country, impossibility to keep one's own previous research group, poorly perceived starting package (research funding, facilities, PhD students and postdocs).

There are basically two leverages in the hands of the head of department to reward highly performing researchers: salary increase within the limit of what is set by the law and granting administrative, technical and research support for applying for funding, for conducting research and for running laboratories as well as for buying or renting technical equipment. Although the role of the head of department has become more central, there are still significant constraints. First, the financial situation of the department limits hiring and purchase of new equipment; second, the role unions play in salary negotiations. Even if the head of department makes up a list of those to be considered for pay increase, it is the faculty that discusses with unions in broader negotiations including all staff. Hence, the starting salary negotiated at the recruitment is crucial, as it defines an initial position that can only be modified and improved incrementally.

The intrinsic uncertainty in personnel policies is perceived in different ways. For some it is about controlling the recruitment process: conflicting logics are observed as the academic logic - looking for the best candidate according to scientific merits and international competition - is challenged by the necessity of assessing also personal and social skills, by local traditions of inbreeding, by cultural issues (different perceptions of status in other higher education systems) and different institutional settings (e.g. department vs. chair organization). For others the reward system should, if not penalize low performers, at least better acknowledge high performers with more support in administrative, technical and research conditions. Finally, the control system should be
improved at university level, in order to keep track of all activities professors are carrying out, e.g. number of (co-) supervisions of doctoral students.

Greater flexibility emerges as a solution for coping with uncertainty: some recommend testing a professor in the first years (for instance by implementing a tenure track system), many would like to provide longer temporary contracts for researchers (according to Norwegian law the maximum is 4 years), others feel necessary to adapt scientific profiles and tasks of researchers according to rapid science dynamics instead of rigidly conforming to job descriptions.

## CASE 2: UNIVERSITY OF HELSINKI, FINLAND

Finland has a large network of 14 universities, of which two are private foundations, and 25 polytechnics. In 2010, there were around 111,800 students (FTE) in universities and 104,200 students (FTE) in polytechnics. The university Act in 2009 granted universities autonomous legal status. Against this backdrop universities can choose whether they want to be independent legal entities under public law or foundations subject to private law. Mergers have also taken place: Aalto University was created from the merger of the Helsinki School of Economics, Helsinki University of Technology and the University of Art and Design Helsinki. The University of Eastern Finland was established by the University of Joensuu and the University of Kuopio, while Turku School of Economics was merged with the University of Turku. Finally, the Finnish Academy of Fine Arts, Sibelius Academy and Theatre Academy Helsinki merged in the beginning of 2013 into the University of the Arts Helsinki.

University of Helsinki was founded in 1640 as a Swedish university and primarily trained clergy, civil servants, physicians and officers. Subsequently it became an Imperial Academy and University when Finland was a Grand Duchy
of Russia, until 1919 when it became a Finnish university. It enrolls around 23,800 students (FTE 2013) and employs more than 8,600 staff (2010), of which almost 4,400 are academics and about 500 are professors. It has a total budget of Euro 645 million, of which $60 \%$ is state funded (2011). With its 11 faculties University of Helsinki defines itself as a "multidisciplinary" top European university. Like at University of Oslo, the board is the supreme body, however faculties are autonomous on academic matters. The rectorate is endowed with some financial resources, which can be allocated autonomously. Employment relations were based on civil servant status until 2011, since 2012 the university employs its staff. After the autonomy reforms, state-university relationships have been organized around control mechanisms such as by legislation (university statutes for instance), budgeting and information. The instability of public funding is perceived as a significant difficulty for the university.

At the department of Chemistry the recruitment procedure is organized upon retirement, which means that the position must appear in the strategic plan. In order to cope with financial constraints joint professorships among faculties can be organized, so that different funds may be allocated for a full position. The head of department coordinates the whole process of hiring. After the faculty has agreed on the call, he or she selects and oversees a group of five internal professors who make a first round of selection and decide which candidates will be assessed by the scientific committee. References are also to be inquired about candidates. The main criteria for selection are ability to attract funds, as well as research plan clarity and sustainability in the long run. All in all the selection is moving towards a mix of $60 \%$ concerning research merits, $40 \%$ relating to social skills and ability to work with colleagues and with students. Teaching merits, assessed in a trial lecture, are evaluated by the faculty according to formal standards defined by the Faculty of Science. Research merits are assessed
by the external evaluators, it is thus considered strategic in the recruitment process whom the head of department invites in the committee. As of internationalization of staff, competition with other universities and other national higher education systems takes place at salary and starting package level. The latter notonly includes technical and research staff but also financial support for housing. Tensions emerge with respect to national duties, e.g. in the use of the Finnish language in teaching and services. At the same time, doubts are expressed on the argument that an international applicant with the same merits should be favored against a Finnish candidate. When it comes to salary negotiations, it appears that the head of department has increasing leeway on deciding the employment conditions. Before the 2005 reforms criteria for salary determination were more rigid but clearer. Today salaries offered by University of Helsinki are not considered truly competitive, even though they are better than before. Finland has introduced grants for visiting professors through the Funding Program for Visiting Top Researchers in Science and Technology (FiDiPro) financed by the Academy of Finland and Tekes (Finnish Agency for Innovation). These grants offer higher salaries for those international academics who want to carry out research in highly reputed fields like the Finnish Institute for Verification of the Chemical Weapons Convention (VERIFIN). External funding is the most important criteria for assessing performance of academic staff. The status of principal investigator (PI) appears to become more relevant than the status of professor. As professor and PI may not always overlap, favoring PI signals that symbolic rewards are being shifted to those researchers able to fund and coordinate big research projects.

Within the boundaries provided by existing regulations salaries can be re-negotiated with the head of department according to performance, as such pay differences among professors are considered legitimate. When it comes to the allocation of resources to the different professors
and their (joint) laboratories, intensive bargaining takes place. This happens in the strategic planning process when objectives and priorities are discussed within departments, while the strategic plan frames specific boundary conditions as of allocation of resources.

## CASE 3: UNIVERSITY OF BASEL, SWITZERLAND

Swiss higher education has been restructured into a binary system in 1995. The university sector enrolls more than $138^{\prime} 000$ students in 10 cantonal universities and 2 federal institutes of technology (2013). Since 2012 a new federal law has provided a common legal framework for both universities and universities of applied sciences. This said, the ten cantonal universities have each their own specific cantonal public funding authorities and legal frameworks. Hence each university is funded by its canton(s), by the federal government (based on the number of students and research activities) and by competitive funding (mainly Swiss National Foundation, Innovation Promotion Agency, EU framework programs).

University of Basel is the oldest university in Switzerland and was funded through papal bull in 1460. It is located under the jurisdiction of the Canton of Basel-City. Since 2006 the Canton of Basel-Country has joined the tutelage authority. The university has 7 faculties (including medicine), enrolls around 13,000 students and employs 3,300 staff, of which two thirds are academics, and 272 professors (2012). The global budget is Euro 563 million (2012), of which $30 \%$ comes from external funding. In 1995 a new legal framework granted institutional autonomy in the explicit attempt of creating a unitary organization out of the scattered institutes and faculties. Today the university board decides on personnel policies and regulates the employment conditions of all staff. It rules on the opening for professorships on the basis of faculties' requests and is the highest
authority when it comes to hiring and dismissing a full professor, as well as withdrawing such title. The rectorate, upon request of the faculties, decides on assistant professors and lecturers. With the relevant faculty it prepares the decision on a full professorship to submit to the university board.

The procedure for hiring a full professor is decided by the university board reflecting the objectives stated in the strategic plan, which is also coordinated and finally adopted by the university board. The financial situation is, in this case too, a boundary condition for the opening of a professorial position. While initiating a procedure has to be approved by the institutional leadership, it is the faculty of humanities, in agreement with the rector, that decides the recruitment committee for hiring at the department of History. Equally, the faculty drafts the call that has to be finally approved by the rectorate. Such calls are open-rank and international. The publication in international channels is organized by the human resources section in the central administration. The recruitment committee has to fulfil several formal criteria: maximum 12 internal members, who reflect diversity of competences and of different groups of employees, who represent women, finally the committee chair has to belong to a different discipline. Additionally representatives of the equality office, of the rectorate and at least one external expert are also members of the commission. Candidates have to show quality of their research according to publications and funding, prove teaching merits partly based on experience, partly on formal training and in a trial lecture; they have to possess social skills and leadership qualities, which are assessed through the interview and the references. The final list has to be drafted based on the assessment of at least two external evaluators for research merits. Salary and employment conditions are negotiated by the rector and the administrative director of the university in agreement with the dean. Recruitment procedures have been standardized and substantially centralized in the hands of the institutional leadership
and, when it comes to the scientific content, to the faculty. The most significant stage is the definition of the recruitment commission: those who act more actively and convincingly appear to be able to steer the process to a certain extent. On the opposite women seem to remain in a weaker position: there are so few qualified female academics, that always the same are involved and might be overwhelmed by committee work. Research output is considered the most important criteria together with international networking.

However, the members of the committee might profit of large leeway in the initial selection stage, as external evaluators are systematically involved when the final list is being produced.

Professors appear to be more powerful when it comes to hiring research assistants and members of the intermediate corps whether funded internally or externally. In this framework professors are more in control of the process, which, even though formally competitive, for instance as of number of applicants, is based on selection of researchers with similar profiles and shared networks. Unlike the two previous cases, the department of history is organized around the chair model (Neave \& Rhoades, 1987). Full professors hold distinctive chairs to which the non-professorial academic staff is attached. This frames not only the workflow, but also opportunities for career advancement, which is perceived to be highly dependent on the will of chair holders.

However the recent introduction of nonstructural professorships allows for more independent junior professorships, able to establish autonomous research activities away from the department's dynamics. This said, the sustainability in the long-term of such positions may be questioned. All in all, while the procedures of selection and promotion have been partially shifted in the hands of faculty, rectorate and university board, the internal life of the department seems to remain organized among chair holders, who decide on research, teaching activities and career trajectories.

## CASE 4: UNIVERSITY OF VIENNA, AUSTRIA ${ }^{3}$

Austria has become a binary system some years before Switzerland, as universities of applied sciences were introduced in 1990. Since then a small private sector has developed and teacher training schools have been upgraded to tertiary education. In 2012 almost 221,000 students were enrolled in the 23 public universities, which total $78 \%$ of overall enrolments in Austrian tertiary education. After the 1993 and the 2002 reforms universities are now autonomous entities under public law, the institutional leadership has been strengthened and academics are employed by the university. Unlike Norway, Finland and Switzerland, Austrian universities are not publicly funded on the number of students. This might be explained by the open admission policy and the traditional free education which has boosted enrolments nationally and internationally (as a measure to counteract this development, since 2008 students overstaying the normal duration of their program have to pay Euro 700 per year).

University of Vienna was founded in 1365 by Duke Rudolph IV, in 1849, following students demand for freedom of teaching and learning, the Austrian basic law, article 17, states that "science and its teaching are free" (art. 17). Nowadays the university enrolls more than 92,000 students, has 15 faculties and 423 full professors (2012). Even though it increased substantially in recent years, the number of professor remains quite low, given the number of students and of employees: almost 9,500 , of which more than 6,300 are academics (2012). Equally the senate is composed by only 18 members representing professors, intermediate corps, administrators and students. Personnel planning is not only part of the university strategic plan, but also integrates the performance agreement with Austrian public authorities. The overall budget in 2012 was Euro 522 million. Since 2007 third party funding has increased about $65 \%$, contributing to global budget growth of $15 \%$. The
university personnel policies focus on tenure track and flexible management of PhD students, postdocs, lecturers and senior lecturers. Recruitment processes have been considerably centralized and standardized to reduce fragmentation of regulations and practices. Internationalization plays also an important role and a growing number of professors come from abroad.

The department of social and economic history is part of the faculty of historical and cultural studies. It has 5 chairs (full professorships), 7 extraordinary professors and 52 academic staff. The opening of a position takes place according to the development plan of the university and its financial conditions. The senate decides on the appointment commission upon advice of the faculty. The commission is formed by 5 professors, 3 teaching staff and 1 student, it must reflect a broad representation of the relevant discipline and $40 \%$ of its members have to be women. The rector approves the shortlist, hence the invitation list, while the head of department is involved in the interview phase. Compliance with internationalization policy and gender equality further shapes the selection of the members of the appointment commission. More significantly, internal appointments, which used to be the norm, have become increasingly rare. The chairman of the commission is very influential and has to come from a different department than the one concerned by hiring. Tenure track positions are decided by the relevant dean and the rectorate, without the department being involved. Salary negotiations are now possible and University of Vienna has been able, in some circumstances, to offer salaries as high as those at some Swiss universities, considered a benchmark for excellence. However pension schemes remain an issue especially with professors coming from German academia. There is presently a shared understanding to compare against excellent German speaking universities such as Lüdwig-Maximilians- Universität München (LMU), Technische Universität München (TUM), University of Zurich and the Federal Institute of

Technology Zurich (ETHZ). This said, international star researchers usually apply at university of Vienna either to leverage and re-negotiate with their own (German) university or to start an intermediate stage of their career before achieving elsewhere their desired position. The support of the dean is paramount at the negotiating stage of recruitment, in fact the dean signals to the rector his or her readiness to offer a good starting package to the new entrant. Accordingly, the rector might strategically negotiate so that the applicant will have to refuse the position. The short list is considered a source of high uncertainty: usually the first or even the second candidate withdraw, while there is a risk that the third candidate is not good enough. On the other side some appointment commissions are considered too ambitious, since they would like to recruit only top candidates. In this sense it can happen that nobody is hired and a new call has to be prepared. The head of department has no formal power, but plays a role of coordinator and moderator, while his or her access to the dean and the rector is perceived by academics as a tactical advantage. At hiring the fight between "traditionalists" and "innovators" is visible, because recruitment is mainly about restaffing positions remained vacant after retirement. Against this backdrop change can be introduced only incrementally with partial modifications of job description (e.g. increasing focus on global studies is now slowly reorienting the department of Social and Economic History), following pressures by the faculty and the rectorate.

The department of Social and Economic History is entitled to a specific amount of points for its own personnel. Professors count 4 points, assistant professors 3, postdocs 2, PhD students 1. The dean is in principle free to redistribute these points among departments, for instance if two postdocs leave, one professor could in principle be hired. However in order to avoid conflicts, the structure and the type of staff defacto remains the same over the years. Moreover the chair system makes the negotiations for the number of assistants
very harsh, as professors want to maintain their groups as large as possible, not only for functional reasons but also for signaling their power and status. In general, in order to carry out change in the strategic profile of a department, a long and complex process has to be put in place. First, a round of negotiations and discussions takes place within the department among academics, then the agreed upon changes are proposed to the dean, who in turn will negotiate with the rectorate. If the rectorate is persuaded, the objective agreement between rectorate and subunits has to be modified, finally the university development plan will be changed. Professors can be hired on call and with a fixed time contract of five years. This selection process is under control of dean and rector, who may decide or not to appoint reviewers.

Table 3 summarizes the drivers of organizational change in the university according to policy reforms, organizational strategies, institutional settings and structural conditions.

Table 4 shows how the four universities have adapted to external pressures for change coming from reforms. First, the role of academic leadership has become stronger also in practice: rectors, deans and heads of departments are substantially involved in decision-making related to human resources. This takes different forms according to legal frameworks and internal governance. Personnel policies are increasingly linked to the university strategy: this can be connected to internationalization, to the need of establishing multi- and interdisciplinarity and collaborative research. Limited financial resources play a significant role when it comes to the number of

## Table 3. Drivers of change in human resources management

|  | Policy Reforms | University Strategy | Academic Traditions | Structural Conditions |
| :---: | :---: | :---: | :---: | :---: |
| University of Oslo Department of Chemistry | -Quality reform 2003; <br> Law on public and private universities, 2005 <br> -University remains part of public sector | -Aims to balance salary expenses, improve career planning <br> -Collaborative research and external funding are a priority <br> Internationalization | -Professors hired according to scientific merits (scientific publications) -Formal criteria for assessing academic merits, informal criteria for evaluating social competences | -Block grant is significantly based on student numbers -Low numbers of students at chemistry -Department structure |
| University of Helsinki Department of Chemistry | -2005 increasing salary flexibility; University act 2009; University becomes employer 2012 -Several mergers redesign the national landscape | -Aims to become a multidisciplinary top European university <br> -Priority is given to attracting funding and managing research projects <br> Internationalization | -Acceptance of increasing competition for funding and publishing -Questioning internationalization | -Instability of public funding <br> -High numbers of students -Department structure |
| University of Basel Department of History | -1995 University Act -2006 second canton becomes main public funder - 2011 Federal Act coordinating higher education | -Rectorate and faculty coordination of recruitment <br> -Redefining profile <br> -Internationalization | -Professorial control of recruitment <br> -Powerful chair holders | -Block grant based on student numbers and research output -Chair structure |
| University of Vienna Department of Socioeconomic History | -1993, 2002 University reforms | -Larger freedom for negotiating salaries internationalization - Benchmarking Swiss and German universities | -Professorial control of recruitment <br> -Powerful chair holders | -Block grant is disconnected from student numbers -Chair structure |

Table 4. Emerging strategic management of academic human resources

|  | Recruitment | Control and Reward System | Discipline-Based Evolution |
| :--- | :--- | :--- | :--- |
| University of Oslo <br> Department of <br> Chemistry | Process is shifting to take into <br> consideration competences beyond <br> scientific publications. <br> Increasing leeway of head of <br> department, emerging role of head <br> of administration and of (internal) <br> interview committee. | Head of department has increasing <br> leeway in starting package <br> negotiations and salary promotions, <br> in agreement with dean. <br> Tenure track does not exist. | Chemistry has few students and <br> went through difficult financial <br> conditions after a new accounting <br> system was put in place at the <br> university. |
| University of <br> Helsinki <br> Department of <br> Chemistry | Head of department plays a key <br> role. | Salaries can be negotiated up to a <br> certain point. <br> Harsh bargaining for allocation of <br> laboratory use, PhD students and <br> postdocs. <br> Tenure track introduced in 2010. | Difficult financial conditions <br> require cooperation in laboratory <br> use, in funding of new <br> professorships. |
| University of <br> Basel <br> Department of <br> History | Process has been standardized. <br> Formally academic recruitment is <br> coordinated by dean and rectorate. <br> Several (mostly internal) actors play <br> a role in the different stages. | It appears to be in the hands of the <br> chair holders. <br> Tenure track exists but is hardly <br> used. | The department has adapted <br> to the new requirements: <br> international staff, external funding, <br> establishment of a doctoral school. |
| University of <br> Vienna <br> Department <br> of Social and <br> Economic History | Process has been standardized. <br> Internal careers are not possible <br> anymore. <br> Formally academic recruitment is <br> coordinated by dean and rectorate. | It appears to be in the hands of the <br> chair holders, while dean and rector <br> coordinate assistant professorships. <br> Tenure track exists but not is used <br> systematically | The department has become more <br> interdisciplinary through global <br> studies. This shapes significantly <br> academic hiring. |

possible hirings, but also to the profile required for new professors. Interestingly, our data show that academics adapt to the new conditions in distinctive ways: while in Oslo the re-discussion of criteria for performance is on-going, Helsinki shows more pragmatism (e.g. concerning funding attraction), Basel complies with requirements for change by reorganizing recruitment of PhD students (establishment of an international doctoral school) and Vienna re-orients its study programs and research agenda.

Differences between national higher education systems are relevant: the Nordic countries have a centralized organization of state. Hence higher education can be steered more centrally (e.g. mergers) and policy relevance of university missions is considered important, for instance when it comes to balancing differences among regions and among higher education institutions. Austria and Switzerland are federal countries: Austria has a national law regulating personnel policies, Switzerland has a rather de-centralized system
where cantons are the main funding authority and cantonal legal frameworks can vary significantly. When it comes to decision-making, in Norway and Finland the room to maneuver is delegated down to the heads of department, while in Switzerland and Austria the rectorate and the dean (eventually supported by the university board) have become increasingly central actors in recruitment.

Although such processes are complex systems of check and balances, the academic leadership at faculty and institutional level has been significantly strengthened. Even if the specific scientific strengths of a candidate are still assessed by academics, the commissions are now appointed according to several criteria such as number of women, external evaluators, and characteristics of the chairperson. Differences can be connected to the different traditions of the academic structure: in Norway and Finland universities are organized around the department model, Switzerland and Austria reflect the chair model, where professors
exercise their (individual) power when it comes to department staffing.

## DISCUSSION: UNCERTAINTY, IDENTITY AND FLEXIBILITY

This section discusses three analytical dimensions emerged from this comparative analysis, which characterize how universities adapt to changing environmental conditions and leadership strategies: uncertainty, identity and flexibility.

Uncertainty relates primarily to the long-term appointment of a professor, who has to perform well in terms of publications, research funding, but also in relation with teaching and student supervision. There are different mechanisms at play: first, standardization of procedures in order to ensure quality and salary negotiations. Second, internationalization and the (increasing) demise of internal careers provide criteria to comply with in order to select the "best candidate" from a large group. Thirdly, uncertainty is dealt with through formal arrangements systematically considered: thus the university strategic plan constrains the leeway for recruitment, not only as of numbers of recruitments, but also as of profiles candidates. These plans are negotiated within the university, and define actors' influence by intense negotiations and deliberations in multiple formal arenas. Financial conditions are also prominent: while at University of Oslo this refers to departmental finances, in Basel and Vienna it is connected to the broader university/faculty financial situations. In Helsinki this uncertainty is caused by public funding from the state, which has recently varied year by year. The sustainability of research in chemistry remains crucial in the selection of new professors, as laboratories, equipment, technical and research staff represent a major investment. Structural differences between natural sciences and humanities become visible, as history needs "only" a few resources, i.e. individual researchers and access to archives.

Uncertainty is distinctively dealt with by integrating different logics of action which mirror actors' distinctive identities. In all cases the academic logic is supplemented by a bureaucraticadministrative logic where formal criteria have to be fulfilled (e.g. composition of commission, introduction of trial lecture) and by a market logic where competition is fostered, and social, managerial and leadership skills are required. Different identities and subsequent ambitions are at play: academics who aim to pursue their own research, thus tending to hire similar colleagues; academic leaders, who try to comply coherently with defined priorities, strategic profiles and financial constraints, administrators and managers, who increasingly take care of internal processes (participating in hiring, overseeing advertisement of call, supporting leadership).

Flexibility has emerged as a dimension balancing uncertainty. Salaries and starting packages have become more and more an arena for negotiations between university and new professors. Different types of professorships have been introduced: based on tenure track, on external funding, fixed-term professorships, hiring through direct call, excellence grants for international professors. These alternative professorships have several functions: they establish a trial period before tenure is granted, they attract excellent researchers by means of higher salaries, they support junior academics in establishing their own career path, they facilitate faster recruitments. However such positions appear to remain vulnerable as long as they are not tightly coupled to the structures, processes and identities of the department where they are located.

## CONCLUSION AND FUTURE RESEARCH DIRECTIONS

Policy reforms have all granted institutional autonomy to universities in human resources management, however this has happened according to
history, structural conditions and understandings of the role of universities in distinctive national higher education systems. While the universities of Helsinki, Basel and Vienna are now autonomous employers, academic staff at University of Oslo continues to be part of the public sector, which is highly regulated in the Norwegian socialdemocratic system. As all four universities now have more freedom to organize their structures and processes, on the one hand the Nordic universities have delegated recruitment of professors to departments, i.e. to the discipline as a subunit in the faculty. On the other hand Basel and Vienna have centralized the hiring authority on the dean and on the rectorate levels. Formally the university board (comprising external stakeholders) is the body in charge of approving a professorship, however this power is delegated to faculties at University of Oslo, while it is more significant - at least as a veto-power body - in Basel and Vienna, where the rectorate plays a substantial role in the whole process.

Increasing leeway to negotiate starting salaries and packages is exercised in order to be more competitive in international markets, particularly in comparison with Germany and Switzerland, perceived as benchmark higher education systems. The expectations from applicants vary largely according to the culture of their higher education system: thus researchers from Germany and Switzerland demand higher salaries and several research assistants. This appears to be the case both in Chemistry and History.

Tenure track has been introduced in Helsinki, Basel and Vienna but remains used unsystematically. At the same time in more rigid systems such as University of Oslo, a trial period is advocated in order to cope with the uncertainty of hiring on permanent positions. Besides tenure track for junior researchers, fixed-term professorial positions have been introduced in Helsinki, Basel and Vienna. While little can be done with poorly performing professors (fewer salary increases, additional teaching, for chemistry: reallocation
of the use of and investment on laboratories and equipment), recruitment constitutes a crucial stage in one's career, since it provides the applicant with the largest latitude to shape salary conditions and future research activities which will affect his or her career for the years to come.

Hence it comes to no surprise that recruitment is a central arena where different identities and logics, carried by different actors, come to play. Policy makers are only indirectly involved, unless they sit in university boards approving new professorships (e.g. Basel). Otherwise it is reasonable to say that by granting institutional autonomy, the state expects the university to manage its (human) resources sustainably in order to achieve the broad objectives delineated in the performance agreement. At the same time procedures of recruitment are standardized, formalized, and to some degree, centralized. The necessity for several actors to coordinate among each others can be considered another constraining condition for academics. The systems of checks and balances have become more and more complex in the attempt to accommodate emerging needs (e.g. cooperation to apply for big research projects) but also to take into account all relevant stakeholders (e.g. students). Looking closely at practices it is apparent that the professoriate, while still monopolizing the scientific expertise required for hiring academics, has to comply with a growing number of rules, of layers of decision-making, with an increasing role of the administration and with multiple criteria for assessing non-academic qualifications (social skills, leadership).

This chapter has discussed how change has been taking place in personnel policies of four European Flagship universities. It has shown that regulatory frameworks (enhancing institutional autonomy), structural conditions (financial resources and student enrolments) and actors' identities (academic profession, disciplinary fields, leadership, administration) shape the trajectories of universities and departments.

Even though institutional autonomy has been part of the scholarly debate for two decades, research is needed when it comes to how human resources are managed within universities and the implications for the dynamics of change in higher education. To do this, empirical work has to be conducted at the work floor level in order to understand how changing personnel policies feed back into institutional change at the university and at the national higher education system level. While identities and cultures may be at the fore of such research, structural conditions, formal regulatory frameworks and organizational strategies should not be underestimated as they frame path dependent trajectories according to country, university and discipline (Fumasoli et al., 2014).

Finally, when it comes to the interpretation and practices of autonomy in personnel policies, a discourse on excellence and competitiveness emerges clearly. The necessity of attracting excellent researchers is perceived as hampered by structural conditions in Norway, Finland and Austria (salary span and finances) as well as by the scientific reputation of both university and department. Since 2000 the EU has played a growing role by spreading global scripts as of excellence and relevance, as of how universities shall contribute to socio-economic development, as well as the necessity to increase competitiveness in the global arena. The creation of the European Research Council represent a signal of the will to enhance scientific excellence and link directly European funding to excellent individual researchers (Chou \& Gornitzka, 2014). It is then relevant to investigate how European universities receive and implement these ideas on excellence when it comes to human resources management, as well as to explore the dynamics of European integration when it comes to teaching and learning as well as research (Maassen \& Olsen, 2007). European flagship universities can be assumed to be at the forefront of such evolution and to play a significant role in the diffusion of such scripts within their national higher education systems.

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## KEY TERMS AND DEFINITIONS

Academic Leadership: All those in charge to steer, coordinate, promote core activities in the university and its sub-units. Hence it is located at different levels: rectorate, faculty, department.

Administration: The administrative function takes care of the implementation of authorized procedures and the application of systems to achieve agreed results. It is located centrally or at faculty or department levels.

Institutionalism: An institutional approach assumes that organizational change is not only deterministic (caused by external forces) or intentional (through actors' design). It also conceives of institutions - structures, routines, identities - as
elements of order and predictability, with their own distinctive dynamics. Hence, when observing organizational change, one has to consider organizations' resilience and robustness.

Strategic Management: It designs activities and controls their administration according to defined objectives. It aims to achieve intended outcomes through the allocations of responsibilities and resources, and through the monitoring of their efficiency and effectiveness.

University Governance: The structures and processes framing roles of and relationships among actors. It aims to provide organizational coherence.

## ENDNOTES

1 The terms "human resources management" and "personnel policies" relate to academic staff only and are used interchangeably in this chapter.
2 Data is retrieved by National statistical offices, reports from the Flagship projects and relates to years $2012 / 2013$. While numbers are standardized as much as possible, the objective of table 2 is to provide indications on structural characteristics of universities and departments for general comparison.
${ }^{3}$ The analysis provided in this section draws in part on the data gathered in the framework of a master thesis (Friedrich 2013) supervised by the author.

