

Tatiana Fumasoli

**Official strategies of Swiss Universities.
A documentary Analysis**

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Abstract

The new Higher Education landscape requires universities to respond to an increasing number of complex demands by society, like providing specialized personnel to industry or proximity knowledge (Larédo 2003); moreover transparency and accountability requisites have modified the model of governance and the relation with the state (Fumasoli 2008). Hence, deprived of traditional flows of unconditional state funding and obliged to deal with a more unstable environment, universities have reacted by stratifying additional missions besides teaching and research and by developing, at different degrees of intentionality, strategies aiming at building an external positioning by pursuing individual profiles (Bonaccorsi and Daraio 2007). This paper presents a comparative analysis of official strategies presented by Swiss universities: ten cantonal universities and two Federal Institutes of Technology. It is a contribution in highlighting how universities act – or conceive their possible action – in a system where different forces push in different directions: public authorities acting top-down at system level, the academic profession, operating transversally and universities, that, individually (or, sometimes, together) and at different degrees, are influencing their future and transforming in formal organizations (Brunsson and Sahlin-Andersson 2000, Musselin 2006). Strategy-making is one of the fundamental dimensions of an organization and it will be shown that universities are able to *delineate* strategic features as of their mission, legal and institutional framework, education and research orientation.

Key words

University strategy, organizational dimensions, Swiss Higher Education institutions

Author's Details

Tatiana Fumasoli, Institute for Public Communication (ICIEF), Faculty of Communication sciences, University of Lugano, Tatiana.fumasoli@lu.unisi.ch

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1. Introduction

This paper presents a comparative analysis of official strategies presented by Swiss universities: ten cantonal universities and two Federal Institutes of Technology. Our research is exploratory and aims at investigating to what extent universities are able to generate an institutional strategic thinking relevant for their external positioning through differentiation and for building their profile. We then compare the documents in search for differences and similarities according to document structure, content, relevant processes and bodies, institutional impact of strategies. The present Draft Paper follows a first on governance in Swiss universities (Fumasoli 2008) in the framework of my ongoing doctoral work.

In Higher Education studies the concept of strategy has to be situated in a more general framework concerning differentiation and convergence. Basing our work on the concept of *configuration universitaire* (Musselin 2001), we try to make a contribution in highlighting how universities act – or conceive their possible action – in a system where different forces push in different directions: public authorities acting top-down at system level, the academic profession, operating transversally and universities, that, individually (or, sometimes, together) and at different degrees, are influencing their future and shaping their role and structure. As of the notion of university strategy, we mainly draw the conceptualization of Bonaccorsi and Daraio (2007), whereby a university, as a multi product unit, takes (almost) irreversible decisions based on uncertainty (of future) in order to attain defined objectives. Furthermore, as our data sources are institutional strategic planning documents, we considered strategic planning a useful operational definition and conceptualization (e.g. Kotler & Murphy 1981, Keller 1984). In fact this help us in approaching our comparative analysis with some firm standpoints and features that enable us to appreciate the significance of strategies, their quality and disadvantages. Finally we describe the Swiss Higher Education system as a case of diversity (Lepori 2007), where the federal nature of state implies a complex institutional framework where federal, cantonal, inter-cantonal and inter-institutional actors play different roles. Nevertheless, in a context of organic higher education system (Bleiklie 2003), the Swiss universities could develop and specialize without preoccupation for available resources. Accordingly, in the past Swiss universities presented similar patterns of management, that can be hardly considered strategic, i.e. matching large and constant public resources for teaching to an increasingly growing number of students and conducting research activities with good to excellent national and international standards. Therefore effective and innovative strategies as well as robust steering mechanism at institutional level were traditionally not necessary. For this reason this paper concentrates in innovative aspects emerging

from documents of strategy, that are particularly significant in order to detect institutional ability to differentiate (Clark 1998).

The analysis of empirical data is qualitative and comparative, it has been carried out on accessible strategic documents. We first describe how they are shaped, the authors and involved bodies, the drafting procedures, then we provide an overview of will-be profiles according to formal statements in the documents. More in details we looked at strategies in search for emergent patterns of steering instruments according to funding, budget allocation and resource management as well as staff and facilities, last but not least the impact on the internal structure and processes. Finally, we outline the outputs (or markets, Keller 1984) according to Higher Education primary missions, teaching, research and services.

Thus, by means of strategic documents, universities are able to delineate sought-after strategic features relative to institutional typology, scope, legal framework, relationship with the university vocational sector, program and research orientation, distinctive services, student preparation for labor markets, financial resources, organizational restructuring. Finally, large highly reputed universities concentrate on elite formation.

2. Analytical framework

2.1 Differentiation among HEIs

The concept of *university configuration* (Musselin 2001) is the foundation of our analytical framework, as it conceives the Higher Education institutional field as multi-level and multi-dimensional, exploring collective actions as a result of interdependent relations between authorities, institutional and discipline-based poles (Clark 1983). Accordingly, we conceive institutional differentiation as the outcome of the interaction between institutional settings and governance at the system from one side, strategic decision-making of the individual institutions to the other side, without the rigidity of concepts such as the iron cage and isomorphism (Powell and DiMaggio 1983). The system-level governance defines patterns of differentiation (Bleiklie 2003), the level of autonomy of individual institutions and specific steering mechanisms, including norms, rule systems and funding allocation mechanisms; however, at the same time, individual institutions have to be conceived as (partially) autonomous agents that can develop different strategies to react to institutional pressures and environmental changes (Oliver 1991) or interpret new opportunities and challenges by their own initiative (Chaffee 1985) according to the available resources. Especially in systems with a small number of players, this might include also cooperative arrangements, which can even overturn

or largely modify system-level choices, like for example the attempt to promote stronger competition and differentiation.

The new landscape requires universities to respond to an increasing number of complex demands by society, like providing specialized personnel to industry or proximity knowledge to local economic environments (Larédo 2003). Transparency and accountability requisites have modified the model of governance and the relation with state (Fumasoli 2008). Finally, deprived of traditional steady flows of unconditional resources and political consensus and obliged to deal with a more unstable environment, universities have reacted by stratifying additional missions besides teaching and research and by developing, at different degrees of intentionality, strategies aiming at developing an external positioning by pursuing individual profiles (Bonaccorsi and Daraio 2007). This shift towards strategic behavior is to be seen as an institutional response to the conflicts arisen in managing limited resources vis-à-vis an increasing number of missions (Clark 1998).

Universities in continental Europe are indeed experiencing multiple pressures from few stakeholders: larger number of students, demands by industry for more relevant research, by society for advice and critical thinking for complex issues, by taxpayers for transparency and accountability, by politicians for provable results justifying increasing investments. Today universities have several missions tied together as a response to expanding student population in order to accommodate a growing number of students. In such general conditions, whereby a general shift from state control to state supervision and delegation of institutional management, even if nuanced depending on different national situations, a series of tools on accountability and transparency is required: budgets, financial plans, resource allocation, reports, strategic plans.

2.2 University strategy

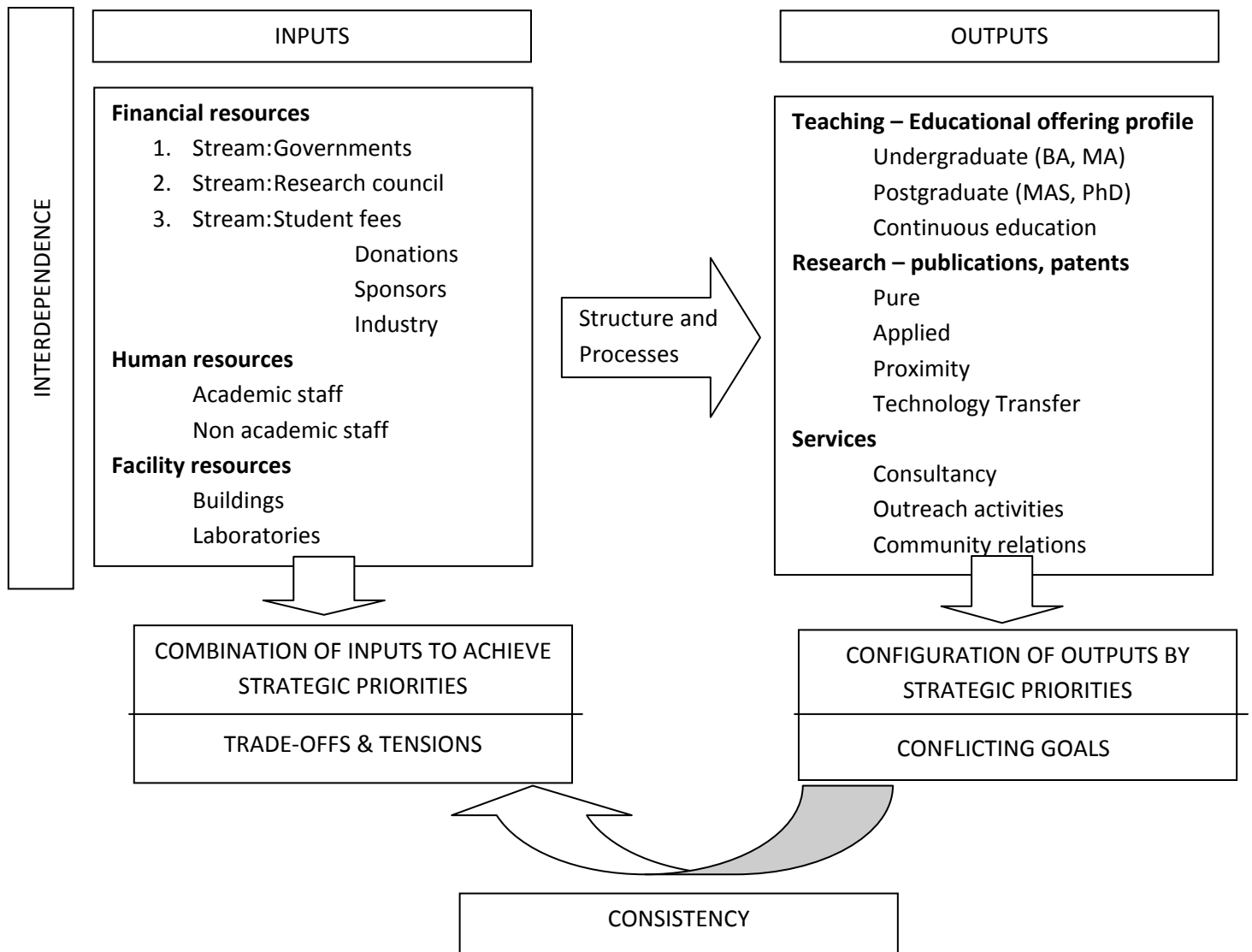
It has been observed from several parts that in the so-called European continental model of Higher Education, policies concerning differentiation are not very significant, thus indicating a weak steering of the system in this respect. On the other hand, if we look at university strategies, their ability to act strategically is directly related to appropriate internal decision-making process, a minimum extent of an institutional autonomy and (some) discretionary power (Bonaccorsi and Daraio 2007). There are several theoretical approaches to investigate university potential for action. First, the weight of traditional model of university, due to history and role, is slowing major changes: universities, as institutionalized organizations, could only react to environmental pressures (Oliver 1991). Second, resource dependence theory tell us that if universities cannot profit from large endowments and are not allowed to borrow money, they remain

dependent on public allocation, hence whatever strategy they may outline, this remains severely limited by the impossibility to plan autonomously financial resources (Pfeffer and Salancik 1974). Third, universities as organized anarchies present a mix of independent subunits and professional staff that only allows for resource allocation according to predefined rules in order to maintain their vulnerable internal balance (Cohen and March 1974).

Nevertheless, competition for resources at international and national level demands new strategies in order to position distinctively in the HE market(s). In some cases at system level, explicitly, as in Germany since 2004 with the Excellence Initiative, national policies have also pushed HEIs to competition for extra funding, thus forcing universities to acquire their own profile in order to differentiate themselves. Another major trend towards competition for resources has been caused by internationalization of Research and Development within major corporation, that are now screening globally research activities in universities in order to acquire the best scientific resources, possibly financing programs and projects inside institutions. International student mobility is also a new trend to be detected: although numbers in Europe remain low, universities are creating marketing and external communication units and carrying out exchange programs with emergent countries like China. Last but not least, internationalization of doctoral studies is accelerating, in some fields more than in others, and competition for attracting excellent PhD students is becoming harsher.

In a framework of increasing competition, no more steady flows of unconditional resources, need to persuade stakeholders and provide the large public with credible claims has introduced the need for a strategy, or a mid-term plan based projected scenarios and, moreover, on the selection of a specific profile that renders a university unique and different from all others within a selected scope, mainly local, regional, national or global. A strategy is not only a targeted plan of action, by (measurable) objectives and resource allocation, it finds also its primary purpose on institutional survival. It is a general concept and identifies an emergent pattern of configuration of university outputs depending on relatively autonomous decision making by universities, supported by appropriate combinations of resources (inputs). Universities are multi-product units (with multi-input and multi-output units) and can define priorities on outputs that cause conflicting goals and produce a mix of inputs to realize priorities that give tradeoffs and tensions in conditions of uncertainty relating primarily to future consequences of decision (e.g. on new scientific fields, evolution of student enrolments, projection of staff salaries).

TABLE 1: Universities as multi-input multi-output strategic units (adapted from Bonaccorsi and Daraio 2007)



As a first conclusion, it seems correct to state that strategies are at the same time a mean for taking decisions for survival in turbulent environments, a tool to manage complexity and granted autonomy, a possibility for steering Higher Education systems bottom-up, and a way of compensating conditions of rigidly institutionalized norms and rules. It is an ongoing process permeating the organization, by which the latter is able to define a course of action for its long viability and can be operationalized in a strategic plan, an internal document drafted by top management that reflects where the university is going to be in the next years. A strategic plan contains of an analysis of the internal situation and of the environment, an evaluation of resources, a definition of measurable objectives, an outline of decisions to take concerning

resource allocation (Keller 1983, Duderstadt 2000, Kotler and Murphy 1981, Fuller 1976) and directions for possible restructuring within the institution. A major feature of strategic plans is the assessment of institutional assumptions and values, often structured in a mission and a vision formulation (Keller 1984). Although criticism arose against strategic planning as an effective tool (Mintzberg 1994), this type of document remains to date a valuable representation of a strategy, at least all universities analyzed possess one (see 3.2). Procedures to draft it have integrated over time different and more comprehensive approaches, like the interpretive strategy, that provides insight in how to legitimate the organization in relation with stakeholders through metaphors and norms (Chaffee 1985).

2.3 The significance of strategy for organizations

There has been much discussion in the last decades on whether a university is an organization or not (Weick 1976, Cohen and March 1974, Birnbaum, Musselin 2006). However, the capacity of conceiving, outlining, planning, implementing, monitoring and evaluating a strategy is an essential organizational feature (Brunsson and Sahlin-Andersson 2000). The shift from centralized governmental control to a delegation in favor of university central administrators implies that universities are transformed from public administration subunits to independent units, or *formal organizations*. According to our definition, drawn from neo institutionalist theories, a formal organization is social entity acting purposefully consisting of an open structure interdependent with its environments (Scott 2001, March and Olsen). The construction of an organization concerns several fundamental dimensions relating to autonomy, control on resources and organizational boundaries, on rationality or how to fix objectives and evaluate results and hierarchy, on internal structure and processes of decision-making, coordination and control (see for ex. Brunsson and Sahlin-Andersson 2000, Musselin 2006) and, finally, on organizational culture, i.e. values, norms, beliefs and self-representations. In this framework, strategy making represents a crucial feature to detect in order to verify to what extent universities have become organizations. Indeed all these dimensions are interdependent and influencing one another and constitute fundamental markers of a strategic plan.

Table 2: Strategy and organizational features

Organizational dimensions	Relationship with strategy
<p style="text-align: center;">Autonomy</p> <ul style="list-style-type: none"> - Governance - Control on Collective Resources - Control on Boundaries (enter/exit opportunities) 	<ul style="list-style-type: none"> - A degree of autonomy is a pre-condition for strategy-making
<p style="text-align: center;">Strategy</p> <ul style="list-style-type: none"> - Setting objectives - Measuring and evaluating results - Allocating responsibilities 	<ul style="list-style-type: none"> - Strategic thinking actual capacity. - Strategic plan and other similar documents - Impacts structure and processes
<p style="text-align: center;">Structure and Processes</p> <ul style="list-style-type: none"> - Co-ordination - Control - Management - Decision-making 	<ul style="list-style-type: none"> - Assures capacity for strategy Implementation
<p style="text-align: center;">Culture</p> <ul style="list-style-type: none"> - Organizational uniqueness by values, norms, beliefs and self-representation 	<ul style="list-style-type: none"> - Mission statement (normative point of departure for a strategic plan)

Strategizing is a prerogative of organizations and universities possess the abovementioned dimensions, but at different degrees, according to their HE system, their tradition and environments. Our empirical data, presented in the third part of this paper, show that all Swiss universities do have a formal strategy. We will show that details provided can vary a lot, intrinsic quality is different according to several features as capacity of setting measurable objectives, clarity in allocating responsibilities, expressing missions and organizational uniqueness. We will also see that incompleteness of strategic plan can also be caused by insufficient degree of autonomy in managing resources.

2.4 Sources of diversity in the Swiss Higher Education System

Switzerland is a case of diversity generated at several levels. First, at system level, due to the federalist nature of the country, the Higher Education system has been characterized, since the second half of the 1990s, by two major contrasting patterns: on one side the introduction of changes fostering a national coordination and standardization (Neave 1996), on the other side, a shift towards the strengthening of university autonomy, according to the general move from a bureaucratic to a supervisory state introduced by New public Management (Amaral 2003). These changes were carried out by means of revision of federal and cantonal legal frameworks, that set up performance contracts and evaluation of quality (Lepori 2007, Perellon 2001). Second, patterns of governance, i.e. relation between state and universities, have been traditionally complex, as funding models, political objectives and policies are different and the small-scale

environments in which universities operate are extremely reduced, actually to the point that each university has its own law under the aegis of individual Cantons; the Confederation subsidizes cantonal universities and cooperates with the Cantons in the university domain; it also manages the Federal Institutes of Technology (FITs) and edicts general rules concerning tertiary professional education. Besides, there are coordination bodies of HEIs at different levels and with different tasks (Lepori 2007). This complexity also refers to the high number of HEIs: ten cantonal universities – two of which created in the late 90s - two Federal Institutes of Technology and seven Universities of Applied Sciences. Accordingly, Swiss universities act individually with different degrees of autonomy and collectively through their coordinating bodies (e.g. CRUS, Conference of University presidents).

In sum, the Swiss Higher Education system is rather stiff, as it is embedded in a complex political and legal framework hindering change in general but also bottom-up from HEIs.

3. Empirical data

3.1 Methodology and Data Sources

The analysis of empirical data is qualitative and comparative, it has been carried out on strategic documents at university level, where institutional actors (central administrators, i.e. university councils and presidents) and understructure actors, i.e. the academic community, operate according to the different weight (or autonomy) granted by the specific governance model they belong to (Fumasoli 2008). Our goal is to show similarities and differences among Swiss universities' strategies and whether there are consequences on profiles and patterns of diversification. The categories according to which we have analyzed strategies relate to our conceptual framework, in particular the definition of universities as multi-inputs and multi-output strategic units. Hence, we describe contents and shape of documents, procedures and relevant bodies for drafting and approval. We will show how these documents, to different degrees and in different dimensions, remain incomplete in order to provide an appropriate strategy. This finding may have two reasons, depending on the analyzed university: either strategic planning is incomplete because of lack of institutional autonomy in decision-making or because of unavailability of confidential documents. We continue the analysis with an overall description of planned future profiles. Funding, budget allocation, human resources and facilities are detailed further in the paper as well as the impact such strategies are going to have on internal structure and processes. Our document analysis inherits some caveats: such official documents cannot mirror reality thoroughly. In this sense, our empirical data do constitute a representation of external positioning, as they reflect how universities think about themselves in the

midterm and how they intend to reach such objectives. But this representation is limited and partial, as practices and informal structures are to be investigated further in field research. Last but not least, the present paper is limited to universities and excludes the vocational sector, primarily for reasons of data availability and concern with too much heterogeneous data.

3.2 Strategies main features

As already mentioned, the available strategic documents we could analyze and compare are very diverse among each other. As Table 3 shows, we were not able to receive the strategies of Luzern, St. Gallen and Zurich (we analyzed for the first the Contract of Services, for the second the Vision while for the third the Strategic Objectives). Then, the period covered is also different in time and extension. Major examples of this problem are Genève and Neuchâtel, both universities provide strategic plans referring to the past and drafted by two Presidents that are not in charge anymore. Titles for strategic documents entail the word strategy or planning, cover four to six years. To be noted that 2015 is a major (and symbolic) deadline defined by the federal government for the achievement of a system reform, whose primary accomplishment shall be the new University Act, presently in consultation. Except for St. Gallen, USI and Zürich, all documents are accessible on institutional websites. We could obtain the USI strategy, unfortunately not Zürich's and St. Gallen. As of Luzern, we haven't obtained any answer from the university and we are not able to say whether a strategic document exists.

TABLE 3: Description of institutional strategic documents

	Title	Year	Period covered	Duration (years)	Confidential/ Public
Basel	<i>Strategie 2007. Zur Entwicklung der Universität Basel</i>	2007	2007-2013	6	public
Bern	<i>Strategie 2012</i>	2006	up to 2012	6	public
Fribourg	<i>Stratégie de l'Université de Fribourg, Horizon 2015</i>	2006	up to 2012	6	public
Genève	<i>Plan de développement évolutif</i>	2003	2004-2007	4	public
Lausanne	<i>Plan stratégique de l'Université de Lausanne</i>	2006	2006-2011	6	public
Luzern	<i>Entwicklungs- und Finanzplan "Universität Luzern 2012"</i>	2005	Up to 2012	6?	confidential
Neuchâtel	<i>Plan d'intentions de l'Université de Neuchâtel</i>	2005	2005-2008	4	public
St. Gallen	--				confidential
USI	<i>Pianificazione 2008-2011</i>	2007	2008-2011	4	confidential
Zürich	<i>University council strategy paper</i>	2004			confidential
ETHZ	<i>Zukunft gestalten. Strategie und Entwicklungsplan</i>	2008	2008-2011	4	public
EPFL	<i>Planification stratégique</i>	2006	2008-2011	4	public

Drafting a university strategic plan is definitely a task of the president and her team. Patterns of faculties involvement are different: they can be consulted in the draft process (Bern, Genève) or invited to provide their own strategy separately (Basel, Neuchâtel). University councils adopt strategies in Basel, Bern, Fribourg, USI. In Lausanne, strategy is adopted by the cantonal parliament, while in Neuchâtel the highest authority is the government. The FIT board adopts its two schools documents.

TABLE 4 : Authors, consulted and adopting bodies

	Main Author	Consulted bodies	Adopting body
Basel	Steering committee chaired by President		University Council
Bern	President		University Council
Fribourg	President		University Council
Genève	President	Development Committee	
Lausanne	President	University Council Cantonal Government	Cantonal Parliament
Luzern	University		Cantonal Government
Neuchâtel	President	University council faculties	Cantonal government
St. Gallen	President		
USI	President		University council

Zürich	President University council		University Council
FIT Zürich	President	Faculties (departments)	FIT board
FIT Lausanne	President	Faculties	FIT Board

With the exception of ETHZ (165 pages), strategic documents involve 26 to 70 pages and have, mostly, five to eight chapters. The division contains parts devoted to vision and mission, analysis of present situation, Teaching, Research and Services, resources and objectives. While the structure reflects all elements of strategic plans, content development and details vary impressively (see table 6).

Only Basel has an initial chapter stating clearly its mission: being a comprehensive university, while the FIT Zürich uses a rather trivial statement on the *link between tradition and innovation* (claimed also by Basel). Lausanne, Neuchâtel and FIT Lausanne indicate a chapter on their vision and culture, detailed further in the text. Finances are mentioned in table of contents by Basel, Neuchâtel, USI and FIT Lausanne (the latter under the more generic item *Resources*); chapters devoted to specifically to staff can be found only in Basel and Neuchâtel. Furthermore implementation, measurement and follow-up are issued presented separately in Basel, Bern, Fribourg, Lausanne, USI and FIT Lausanne. To be noted that future institutional cooperation is to be found Genève and FIT Zürich and Lausanne, while future profiles are mentioned by Basel, Fribourg, USI and FIT Zürich. In conclusion, table of contents are not always very significant in providing insight or in highlighting priorities.

TABLE 5: Structure and contents of strategic documents

	Number of pages	Number of Chapters	Chapters	Detailed according to faculties
Basel	31	8	<ol style="list-style-type: none"> 1. <i>Einleitung</i> 2. <i>Die Universität Basel als Volluniversität</i> 3. <i>Forschung</i> 4. <i>Lehre</i> 5. <i>Profilierungsbereiche</i> 6. <i>Personal und Organisation</i> 7. <i>Grösse, Finanzen, Raumplanung</i> 8. <i>Umsetzung der Strategie</i> 	No
Bern	30	4	<ol style="list-style-type: none"> 1. <i>Vorwort</i> 2. <i>Strategische Planung 2012: Generelle Vorgaben</i> 3. <i>Strategische Planung 2012: Bereichsspezifische Vorgaben</i> 4. <i>Weiteres Vorgehen</i> 	No

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Fribourg	26	8	<ol style="list-style-type: none"> 1. Base, objectifs et structure de la stratégie 2. Situation actuelle 3. Positionnement de l'Université de Fribourg 2011 4. Offres et prestations 2011 5. Services généraux 6. Bâtiments 7. Structures 8. Planification stratégique de la faculté des Sciences 	No
Genève	44	8	<ol style="list-style-type: none"> 1. Formation de base et approfondie 2. Recherché 3. Formation continue 4. Services à la Cité et expertises 5. Egalités des chances 6. Coordination et coopération entre les hautes écoles 7. Infrastructures 8. Organisation et gestion 	No
Lausanne	70	5	<ol style="list-style-type: none"> 1. Ensemble, faire rayonner l'UNIL 2. Une vision pour l'UNIL 3. Les valeurs 4. Objectifs prioritaires 5. Amélioration des conditions cadres: chantiers prioritaires 	No
Luzern				
Neuchâtel	58	5	<ol style="list-style-type: none"> 1. Préambule 2. Vision scientifique 3. Offre de formation 4. Planification des postes de professeur et de l'offre de formation 5. Cadre financier 	Yes
St. Gallen				
USI	34	11	<ol style="list-style-type: none"> 1. L'USI nel secondo decennio: ambizioni e strategie di sviluppo 2. Introduzione 3. USI 4. Architettura 5. Economia 6. Comunicazione 7. Informatica 8. Servizi 9. Logistica 10. Finanze 11. Dati 	Yes
Zürich				
FIT	46	3		No
ETHZ	165	24	<ol style="list-style-type: none"> 1. Strategie der ETH Zürich: Verbindung von Tradition und Innovation 2. Rahmenbedingungen und Positionierung 3. Lehre 4. Forschung 5. Kooperationen 	Yes

			6. <i>Uebergreifende Massnahmen zur Hochschulentwicklung</i>	
			7. <i>Hochschulmanagement</i>	
			8. <i>Departementsstrategien und Kennzahlen</i>	
EPFL	48	8	1. <i>L'EPFL aujourd'hui</i>	Yes
			2. <i>Politique de formation</i>	
			3. <i>Visions des facultés</i>	
			4. <i>Innovation</i>	
			5. <i>Perspectives nationales et internationales</i>	
			6. <i>Campus EPFL 2010</i>	
			7. <i>Ressources</i>	
			8. <i>La mesure du succès</i>	

Another element to be considered is the way the documents outline discipline-based chapters (either according to faculties or to large branches of disciplines: while almost all universities (Basel, Bern, Fribourg, Genève, Lausanne, ETHZ) present a strategy structured on institutional goals (i.e. teaching, research, services, finances), Neuchâtel, USI and EPFL introduce briefly an overall strategy and then present detailed planning for faculties.

In a normative perspective, strategic plans should contain a certain number of contents, as outlined in our section on analytical framework. Table 6 illustrates a systematic checklist in this respect. Organizational culture, or values and assumptions are discussed by all, while only Fribourg, Lausanne, Neuchâtel and USI provide an examination of the internal situation of the institution. The analysis of the environment (risks and opportunities) is a topic only for Fribourg, Neuchâtel and the FITs. Decisions on resource allocation are specified by a few universities (Basel, Lausanne, Neuchâtel, and USI) and definition of (measurable) objectives are very different in details and operational significance. Only Bern describes explicitly its competitive environment at national level.

TABLE 6: Main topics of strategic plans

	Values and assumptions	Internal analysis	Environmental analysis	Resources allocation	Objectives and goals	Implementation Monitoring Evaluation
Basel	x			x	x	x
Bern	x				x	X
Fribourg	x	x	x			
Genève	x					
Lausanne	x	x		x	x	
Luzern						
Neuchâtel	x	x	x	x	x	
St. Gallen						
USI	x	x		x	x	
Zürich	x					
ETHZ	x		x		x	
EPFL	x				x	

The following table describe general features of Swiss universities, as they are presented in strategic documents: institutional slogans, overall thematic priorities, institutional profile and scope. Interestingly, mottos are not featured by comprehensive universities (Bern, Genève and Zürich), or are trivial (Basel and FIT Zürich: *Tradition und Innovation*). Fribourg reflects its catholic roots with *Science et Sagesse*, Lausanne underlines its recently acquired multidisciplinary and co-operation oriented identity with *Le savoir vivant*, while Luzern and USI focus on institutional innovative characteristics and tiny, human friendly dimensions. Thematic priorities at institutional level were hard to detect (see table 13 for additional details in this perspective), nevertheless Basel, Bern, Fribourg and Lausanne illustrate them clearly, FITs priorities integrate each other (natural sciences/fundamental research in Zürich and technical science/applied research in Lausanne). As of the category to which each university belong, we can highlight Lausanne major change from a comprehensive to semi-comprehensive institution, after transferring of sciences to FIT Lausanne and part of Medicine to Geneva. It is also difficult to define an institutional scope, this is the reason why we list one to three categories, according to the different missions or discipline according to categories featured in the CHINC project¹: there are global players (Zürich and FIT Zürich), international

¹ The CHINC categories relate specifically to institutional research ambitions and are: World-class, internationally active, Nationally renowned, specialized world-class, regional, primarily teaching oriented, other.

reputed schools (maintaining position: Genève; reinforcing/creating position: Basel, Bern, FIT Lausanne), European and national (Fribourg, Lausanne) and with a multiple local, national and international dimension (Luzern, Neuchâtel, St. Gallen, USI).

TABLE 7: Main features of outlined profiles

	University motto	Thematic priorities	Category	Scope
Basel	Tradition and innovation	Life and Culture	comprehensive	Internationally active
Bern		-Problem oriented - translational research	comprehensive	Nationally renowned Internationally active
Fribourg	Science and Wisdom	-European studies -bilingual teaching	Semi-comprehensive	Nationally renowned Internationally active
Genève			comprehensive	World-class Internationally active
Lausanne	Crossroad of knowledge Living knowledge	-Medicine -economics -co-operations	Semi-comprehensive	World-class Internationally active
Luzern	The personal university Creative and eager for innovation		specialized	National European
Neuchâtel			Semi-comprehensive	Local national
St. Gallen		- Business school	specialized	European
USI	International, Interdisciplinary, Innovative		specialized	Local National international
Zürich			comprehensive	World class Internationally active Nationally renowned
FIT Zürich	Tradition and innovation	Natural sciences	Specialized	World class
FIT Lausanne		Technical sciences	Specialized	World class

3.3 Emergent capability of handling diversified resources? Funding, Budget allocation, Human resources and Facilities

In this section we present and analyze the findings according to four major categories: funding, budget allocation, staff and infrastructure. Financial resources have been represented mostly by governmental

funding at federal and cantonal level. Although they are stable and even slightly increasing, universities need to augment their budget in order to fulfill their tasks (multiple missions) and at the same time assure quality and acquire or maintain reputation in teaching and research.

As the following table shows, declaration of intents in this regard have been made in almost all strategic documents analyzed: Basel is implementing an institutional solution, increasing the number of cantons in charge of the university. Enhancing alumni role towards their alma mater (Bern, and FITZ), increasing the number of students (Neuchâtel and USI), and developing tighter relations with their local environment (Genève) are also mentioned. With respect to financial steering measures we have found chair planning is declared by Neuchâtel, USI and FIT Lausanne, incentives and budget for research by Fribourg and FITZ, and the constitution of foundations for dealing with private funding, where such institutions haven't existed yet.

As table 8 shows hereafter, the Swiss Higher Education system still offers possibilities to increase first stream funding: in Basel adding new cantons as supervisory authorities, USI and FITL with the future creation of a fifth faculty (on the impact of strategy on structure see section 3.4). Neuchâtel is the only institution presenting scenarios according to the future University Act, presently in consultation procedures. The new allocation mechanisms, partially based on standard cost per student at national level, is seen as an opportunity to be more efficient and effective, in order to receive more support from the confederation. Concerning second stream – i.e. through research councils – every university aims at increasing project funding. This item is not seen specifically only as a financial objective, but rather more as a fulfillment of university missions and a measure for reputation. Moreover, in the case of Neuchâtel and Fribourg, the acquisition of one national center for competence in research as a leading house represents an overall strategic goal: in fact this program of the national foundation is a unique possibility to acquire an important research budget while at the same time managing it at institutional level with some autonomy, in contrast with project funding, which implies to some extent intermediate agency steering directly in relations with academics involved in the team.

TABLE 8: New sources of funding

	1. Stream	2. Stream	3. stream
Basel	Enlarging legal basis to other cantons	Increase competitive research	Sponsorship and marketing
Bern			Alumni sponsoring
Fribourg		Increase competitive research, esp. EU framework programs - Becoming leading house of one national center of competence in research -Cooperation with new EU countries funded by the confederation	Alumni Consulting
Genève			International organizations, CERN and hospitals
Lausanne		Increase competitive research	Consulting
Luzern		Increase competitive research	
Neuchâtel	Improve standard cost per student	Increase competitive research - Becoming leading house of one national center of competence in research	Increasing students from near cantons Increasing fees Research fund
St. Gallen			
USI	Increasing federal funding through research projects and students from Swiss cantons	Increase competitive research	Increasing students Private foundations
Zürich			
ETHZ			Alumni Foundations
EPFL			Relations with industry

Table 8 shows somehow innovative items in budget allocation, whereby universities intend to steer increasingly their activities and manage their finances in a more autonomous way. The creation, or increase of a special fund dedicated to stimulate research are planned by Basel, Fribourg and Lausanne. EPFL shall constitute an internal fund for innovation, reflecting its strategy for a robust profile in innovation and technology transfer, thus reinforcing its already existing strength in industry relations. University foundations (ETHZ) are created as an additional instrument to attract and manage donations. Basel and ETHZ foresee scholarships for foreign and excellent students. Particularly in the case of the FIT scholarships

are planned as a strategic instrument to select excellent students proactively at an early stage of their education. In this perspective, Zurich and ETHZ state that all available room for maneuvering shall be used in order to facilitate selectivity, as selection in Switzerland remains a political taboo (see Zürich Strategic objectives and Interview with the new ETHZ President, NZZ 15 February 2008).

TABLE 9: Innovative items in budget allocation and financial resource management

	Overall	Teaching	Research	Services
Basel		Scholarships for foreign students	Research fund Increasing Matching funds	
Bern				
Fribourg	University Foundation		Research fund Increasing Matching funds	
Genève				
Lausanne			Part of overhead for research projects President Research fund, esp. to support interdisciplinarity	
Luzern				
Neuchâtel				
St. Gallen				
USI				
Zürich				
FIT Zürich	Allocation of non fixed budget according to performance FIT foundation	Scholarships for excellent MA students	Scholarships for excellent PhD students	
FIT Lausanne			Research Fund 5%	Venture capital for innovation

Human resources management provides some attempts to coordinate universities activities in a more effective and flexible way. First, professionalization of central administrators is set as a priority: Fribourg for example states clearly that academics shall concentrate on teaching and research, furthermore, Zürich plans to conclude its reform of internal strategic management, share to date between the President and the University Council. Second, tenure track is reinforced or introduced (Genève, USI, EPFL). As of flexibility, some universities intend to diminish chairs and professorships by using more members of the intermediate corps. This implies lower costs, career support for younger staff but also structural suppleness in the organization of teaching, as when a professors is appointed (with or without chair) it is more difficult to

cancel his position rapidly. Possibly, even if not explicitly stated, this measure could also unload researchers from teaching activities.

TABLE 10: Human resources Management priorities

	Human Resources priorities
Basel	Intermediate corps replacing chairs Academic administrators
Bern	
Fribourg	President and presidential office professionalization Dean Reinforcement and integration in top management Specialized staff for administrative tasks (research funding mgmt) Unloading researchers from teaching and administrative tasks
Genève	Introducing tenure track
Lausanne	Reinforcing Human resources management (HR manager) Gender equality
Luzern	Professionalization of Deans
Neuchâtel	Intermediate corps replacing chairs (1/3) Attracting excellent academics Evaluation after 4 years
St. Gallen	
USI	Consolidation of chairs
Zürich	Reform of strategic management Gender equality
ETHZ	Increasing chairs Tenure track
EPFL	Increasing Tenure Track positions (+ 50%) Gender equality

Facilities and buildings are generally not owned by Swiss universities, this almost always implies the involvement of public authorities in transformation, restructuring, extension of infrastructure relatively to financial support and provision of grounds or buildings. Table 10 shows rather clearly that for some universities facility planning are rather ambitious: a Learning Center for Lausanne and EPFL, a second campus for USI and the completion of the Science City in Zürich. Also the reorganization in Basel, Fribourg and Neuchâtel involves additional financial means. Interestingly, a general trend towards campus universities can be observed, leaving European traditional scattered university buildings throughout the city.

TABLE 11: Facilities

Basel	Concentrating scattered units in a “campus” like structure
Bern	
Fribourg	New building, Increase property of university, decrease renting
Genève	Student accommodations
Lausanne	Campus 2010 (Uni, EPFL, CHUV)
Luzern	
Neuchâtel	Building for social sciences student accommodations
St. Gallen	
USI	Second campus Student accommodation
Zürich	
FIT	
ETHZ	Science City
EPFL	Campus 2010 Student accommodation

3.4 How strategies impact structures and processes

Strategy is also a question of deciding how to improve its own production profile in order to acquire additional funding, be better positioned and having a clearer profile vis-à-vis university constituencies. In this perspective a strategy has an impact not only on the side of input and outputs, but also on the university structure and processes, that represent the technology through which resources are combined, elaborated and transformed in products for selected Higher Education markets.

Table 12: planned structural changes to support strategy

Basel	Reform of coordination between central and academic unities
Bern	
Fribourg	-Creation of a central structure for research (vice rector) -Institutional strategic management through NCCR
Genève	-Reinforcing interdisciplinary centers by rectorate -Improving central services performance
Lausanne	-Improving teaching coordination -Redefining tasks of the technology transfer center (PACTT)
Luzern	
Neuchâtel	-Restructuring of the Social sciences faculty, downsizing the faculty of Sciences Institutional strategic management through NCCR
St. Gallen	
USI	-Creation of a fifth faculty
Zürich	-Reform of management structure
ETHZ	-Creation and implementation of a corporate identity
EPFL	-Creation of transdisciplinary research centers

Table 12 shows major structural changes within Swiss universities in order to achieved defined objectives. Primary features are creation of new units or subunits (Fribourg in central administration, USI and EPFL wsith new faculties), improvement of performance through staff training (Genève) and amelioration of Technology transfer services. More specific points concern the acquisition of a leading house within NCCR, considered as a major opportunity to develop financial and organizational autonomy by winning a call by the National Research Foundation (Fribourg and Neuchâtel). Teaching coordination sounds a very ambitious goal (Lausanne) and, interestingly, is the only issue relative to classroom individualism of professors. Once again we can see how advanced are – at least in strategic documents – excellent institutions like Zürich, ETHZ and EPFL, the first reforming the management structure, the second shared organizational identity in order to achieve (or support existing) organizational excellence, the third focusing on research and attempting at maximize infrastructure and facilities by fostering synergies transdisciplinary. The only institution that counts on no increase in funding is Neuchâtel: is the faculty of social sciences to be reinforced because of large number of students, the faculty of sciences will be sacrificed, in the framework of a system of communicating vessels.

In conclusion, all universities but Neuchâtel plan modifications (or incrementation) of their structure based on increasing funding.

3.5 Towards differentiated outputs: markets for teaching, research and services

3.5.1 Teaching

All universities claim the first stage of Bachelor being dedicated to local and national students, with the exception of the one of ETHZ, offered also to German speaking foreigner students. The number of Bachelor degrees is larger than that of Master degrees and is granted in the local language. Every university repeats the CRUS guidelines, indicating, generally, that competition is national at Bachelor level.

The Master degree instead is devoted to national students (i.e. coming from other Swiss universities) and to students coming from foreign universities, as CRUS guidelines state. Zürich and ETHZ claim their will to attract excellent students globally. ETHZ also adds priority regions according to traditional international students and new emerging countries (e.g. China and India). As of postgraduate studies (Master in Advanced Studies), there are two different types of audiences targeted: on one side European professionals, on the other side local or national professionals. The first case refers for St. Gallen, that enjoys a reputation of excellence as a European business school, the second to Fribourg, that prepares Swiss students for jobs within federal public administration.

PhD programs are all said to attract international excellent students, although specific features are not provided in order to understand how such objectives should be reached, especially in disciplines pertaining to humanities, social science, economics. The only exception in this regard is Zürich, where the cantonal government has granted the university a specific amount of money in order to perform better in some doctoral schools (Baschung 2008).

We can also observe that comprehensive universities show slight diversification patterns: Basel is clustering curricula around “Life and Culture” (life sciences and humanities), Bern declares its problem-oriented education (tied to translational research, a concept drawn from medicine that involves closer relation between basic research and application), while Genève, is listing on one side all its faculties as priorities, on the other side sets medicine as the focus of its offer in continuous education. We can observe that some strategic documents can provide the reader with a shopping list where all is included, see for ex. Genève, where even Architecture is listed among priorities in 2006, which was closed some months after.

3.5.2 Research

Research activities can be also observed according to their scope: locally we find proximity research (Larédo 2003) and technology transfer (e.g. Neuchâtel), nationally we can find some applied research activities (e.g. Bern, translational and problem-oriented research). Nevertheless, constructing significant reputation on research activities implies international or even global ranking. International reputation in research is claimed to be an objective by all universities, except Zürich and ETHZ, that aim at (maintaining) excellence globally. For Fribourg and Neuchâtel we can observe that endeavor for reputation is more national, as they outline assuming a role as leading house of a national center of competence in research as a strategic goal (see section 3.3 on the financial strategic dimension on being a leading house within NCCR).

Hence we observe that universities tend to declare they pursue the full range of research activities, only defining some major themes as priority in research for international/global reputation (see table 5). Nevertheless, different accents can be detected with respect to pure and applied research: Bern stick to its more applied features and defines its research, too, problem-oriented, Genève aims at providing reflection and solutions to the international organizations located in its local environment, St. Gallen defines its research activities as traditionally strongly applied.

3.5.3 Services

A strong relation with the local environment is a common claim to find in all strategies. This can be articulated differently: creating or reinforcing a university town (Zürich, Basel, Fribourg), networking with existing institutions at federal or cantonal level (e.g. Neuchâtel, St. Gallen), other HEIs (other universities: Zürich and ETHZ, vocational sector: USI and Zürich), existing research institutes within the same region (USI), industry and financial institutes (Basel, USI, EPFL), international organizations (Genève). This relation can also reflect a microcosms of Swiss national characteristics, as in Fribourg that conceives itself as a representation of the Swiss federal, multilingual and multicultural landscape.

Support for economic development can be local (cantonal) as in Fribourg, Neuchâtel and USI, regional (more cantons) like in Genève, Lausanne and EPFL or at national level (ETHZ). For USI the offer of continuous education is mainly offered to local audiences. Basel and Lausanne aim at becoming cultural centers offering conferences and events to the broader public.

TABLE 13: Higher Education Markets preferences

	Teaching	Research	Services
Basel		-Life: nanosciences, system life sciences, pharmacy, molecular psychology and human development (translational research) -Culture: semiotics, European studies, justice and social change	-Industry relations -Public outreach
Bern	Problem oriented	Translational research	
Fribourg	- Increasing undergraduate foreign students -Strong focus on continuous education (19 MAS)	-Maintain profile as Research university -Leading house of one national center of competence in research	-Expertise - <i>Ville universitaire</i>
Genève	-Human and social sciences, -Natural and technical sciences -Medicine -Architecture -Environmental sciences -Continuous education/medicine	-Genetics -Material sciences -Stem cells -Linguistic policies -History of Reformation	Medical humanities
Lausanne	-Exchange with EPFL and CHUV -Business School	-Life sciences -Swiss Financial Institute - interdisciplinarity	- Increase expertise -Public outreach -Networking with

			politicians and high schools
Luzern			
Neuchâtel	MA to attract future PhD students	- Leading house of a national pole of research in social sciences -Plant biology	
St. Gallen			
USI	-increasing students from other Swiss cantons -increasing BA students	-Swiss financial institute -Computational biology -Organization/management -Health communication and economics -Mlinguism -Media management -Urban planning	-Supporting local development -Continuous education
Zürich			
ETHZ	-Excellent German speaking BA students -Excellent MA students	-Fundamental sciences -Engineering -Life Sciences -Design -Environmental sciences -Increasing foreign PhD students (German speaking countries, USA, China, Singapour, India)	-supporting Swiss economic development - Science City
EPFL	Increasing students	-Improving bibliometric index -Technology management -Transdisciplinary research (information security, energy, design) -Increasing PhD students	-Create start-ups -Regional Technology Transfert

4. Preliminary results and discussion

Our analysis shows the complexity of the diversification process of Swiss HEI, as well as a number of tensions emerging both at national and regional level.

The *cantonalized* nature of Swiss universities has had a strong impact on the concept of autonomy: concretely each of the ten cantonal universities has its own specific relation with one state and acts as a unique national institution while funding models do not constitute a steering instrument or produce differentiation. Thus, the whole debate on the new higher education act reflects this tension between

attempts to promote some system-level convergence at least concerning some basic rules and the desire to keep institutional differentiation.

As noted already in the second section, the Swiss Higher Education system is rather stiff, embedded in a complex political and legal framework hindering major changes by single HEIs, in a bottom-up perspective. Moreover, by taking some distance from the political discourse, we could observe that, in general, lack of financial support doesn't represent a concrete problem (USI and EPFL are planning an additional faculty in the next years) . All this confirms our initial stance that the Swiss Higher Education is not very dynamic. The specific strategic vision is rather generic and indicate broad goals, although binding (e.g. Bologna Reform). For larger institutions, like Zürich and EPFZ, the new Master education will allow eventually for more selection of excellent students in an early stage of their scientific career. This has an impact on outputs: in fact one major finding our comparative analysis is that universities seem to be more creative, thus differentiating among each other, on the input side, i.e. on the way they combine and construct available resources; on the other hand outputs relative to teaching and research are rather standardized (Bachelor, Master and PhD or ranking in research for example).

Nevertheless, some elements of pressure are to be detected in strategy formulation: the increasing number of students, rankings, competition with university vocation sector, changes in research funding mechanisms that are becoming more competitive. From a traditional model where universities were funded according to the number of students, there is a trend for financing more through research activities. Some trends can already be observed: Fribourg and Neuchâtel could become teaching oriented universities, because of large number of students in social sciences and humanities that create an unbalance between teaching and research activities workload among academic staff.

At the institutional level, interesting dynamic elements can be identified in the re-organization of faculties, that present some major concentration in order to find efficiency (e.g. medicine). Our preliminary results indicate that Swiss universities are producing strategies at institutional and understructure level. Although it is difficult to draw a line between strategies as a definite reactions to environment and strategies as product of institutional autonomy, our findings show that Swiss universities are situated differently on a continuum between low strategy capacity (directly related to low institutional autonomy, e.g. Neuchâtel), going through adaptive strategy capacity (e.g. Genève), and high strategy capacity (e.g. FITs) Cooperation among different universities is also increasingly sought as a response to lacking national coordination frameworks (see for example the restructuring of Medicine, pharmacy and veterinary, or the *Triangle Azur* among French speaking university cantons).

Thus, by means of strategic documents, universities are able to *delineate* strategic features as of:

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- 1) *Institutional typology*: from a comprehensive to semi-comprehensive, e.g. Lausanne; from semi-comprehensive to teaching-oriented, e.g. Fribourg and Neuchâtel)
- 2) *Scope*: from a generally national oriented to a proximity university, e.g. Neuchâtel; or, on the contrary from national renowned research to internationally active, e.g. Bern,
- 3) *Legal framework*: from a traditional single canton to a multi-canton legal framework, e.g. Basel,
- 4) *Institutional relationships*: with other universities within the region, e.g. Lausanne with EPFL and Hospital with University vocational sector within the region (e.g. USI and Zürich), with hospitals, e.g. Basel and Genève, federal offices, e.g. Neuchâtel
- 5) *Autonomy self-acquisition*: through third means (continuous education), e.g. St. Gallen
- 6) *Program orientation*: development of continuous education, e.g. St. Gallen; from basic to more applied and problem oriented teaching, e.g. Bern
- 7) *Research*: from basic to problem-oriented, e.g. Bern,
- 8) *Services*: focus on external consultancy, e.g. St. Gallen, Fribourg,
- 9) *Preparation of students for specific labor markets*: public administration, e.g. Bern and Fribourg; international organizations, e.g. Genève,
- 10) *Higher financial resources*: student fees, e.g. USI; research fund to re-allocate, e.g. Lausanne; private foundation, e.g. FITZ
- 11) *Relations with industry*: joint laboratories, e.g. FITZ and FITL,
- 12) *Elite education*: large highly reputed universities (e.g. Zürich).

As already said, these are outlines of strategic objectives for the next years, of which some of them are even insufficiently drafted, as presented in the previous sections. Whether aiming at such results is supported by enough organizational autonomy, adequate implementation procedures, relevant structure and processes - in particular decision making and coordination through top and middle management - and, finally, whether culture, values and visions (partially) expressed are shared by all within the institution is still to verify. Field research is needed now in order to investigate what concretely happens in universities: Who implements, monitors and evaluates strategies? This was not clear in the documents we analyzed to date (university acts, statutes, regulations and strategies). Which actors are strategic and how much power do they have? What kind of relationships have strategic actors among themselves?. Is formal structure important? What is the role of informal structure? Budget allocation and management is a central issue in this regard and should be tackled as first.

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