UNIVERSITY OF BERGEN

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1. Summary of External Dynamics & Major Policy Developments (last 10 years)

From a policy (macro-level) perspective, there have been a number of far-reaching changes in the last decade, primarily resulting from the implementation of the 2003/04 Quality Reform. First, there has been a stronger political focus on higher education and R&D as tools for the development of society (consult 2005 OECD’s thematic review). In general, there is a predominantly positive, optimistic view of the role of higher education in society as regards equity, democratization, innovation, etc., but also stronger external demands and expectations. Changes in the regulative framework, governance structures and structural arrangements of Norwegian universities have been substantiated (policy rationale) on the need for quality improvements in higher education and research in general (student drop-out, delays before graduation, emphasis on student learning, and better follow-up of students), and the integration with developments across Europe (Bologna process/internationalization) in particular.

Change in governance structures at the institutional level aim, first and foremost, at allowing institutions more autonomy concerning organization and management issues, for example when it comes to the introduction and repeal of courses and study programs. The new funding formula (since 2004) puts a strong emphasis on the accomplishment of results/output, both in the realm of teaching (student credits) as well as research (publication points). As is often the case, in the Norwegian context, autonomy however also means increasing accountability to society, materialized around the introduction of a compulsory national quality assurance system and the establishment of an independent quality assurance agency (the Norwegian Agency for Quality Assurance in Education - NOKUT).³ Accreditation of institutional status was introduced in recent years along with systematic evaluations of institutional quality assurance systems. New forms of student guidance, evaluation and assessment are intended to improve the follow-up of students, reduce drop-out and interruption of studies, and to stimulate study completion in short periods of time (Consult OECD 2005 review for more details on national developments). As a result of the efforts around Bologna and the hcreation of a European Research Area (ERA), international dimensions across teaching and research have become increasingly pronounced in the last decade.²

² See, for example, Gornitzka, Å., and Langfeldt, L. (2008). Borderless knowledge: understanding the “new” internationalisation of research and higher education in Norway, Dordrecht: Springer.
2. Institutional Case Study

2.1. Background Information

2.1.1. Organizational Structure

Established in 1946, the University of Bergen (UiB) is characterized by its great variety and breadth. It has a total of six faculties, covering most of the traditional university disciplines (humanities, law, mathematics and natural sciences, medicine and dentistry, psychology, and social sciences), and 60 different specialized sub-units; departments, centers and institutes. Table 1 (appendix) provides an overview of sub-units per faculty. In 2011, UiB enrolled 14,086 students and employed 3,370\(^3\) staff members, 59% of who were involved with teaching and research activities. The number of employed staff rose by 28% in the 10-year period 2001-2011, with the percentage of females increasing from 45.2 to 50.8%, respectively (DBH-NSD).

When it comes to academic staff, the largest units are the faculties of mathematics/natural sciences and medicine/dentistry, with more than half of all academics (figure 1). In 2011, 32% of all those involved with core (teaching and research) activities were females, versus 24% in 2001 (DBH-SSB). Today, only about 22% of all professors at UiB are women (versus 13% in 2001), with about a third at the level of associate professor (stable figure in the last 10 years). During this period, the absolute number of academics with professorial title employed at UiB rose by 17%, whereas the number of associate professors remained relatively stable. The highest increase (+44%) was in the number of assistant professors (DBH-NSD). As of today, female academics are particularly under-represented across “hard” fields such as the mathematics and natural sciences (30%), yet they do dominate in psychology (59%) and are even with men in the medical sciences (DBH-SSB).

\(^3\) This figure includes both permanent and temporary staff funded by basic allocation, research grants and commissioned activities.
By 2011, the largest faculties (student enrollments) were the humanities, social sciences and mathematics/natural sciences, respectively, with 61% of total enrollments (figure 2). Historically, the number of students enrolled at UiB (period 2001-2011) declined by 20%, from 16,824 to 13,471, respectively. In 2001, UiB’s enrollments represented 23% of all university enrollments across the country, whereas in 2011 this figure was 15% (DBH-NSD). Interestingly, the total number of student enrollments across Norway’s universities rose by 20% during the 10-year period, yet this rise is largely attributed to three new university providers (former non-university institutions) rather than an increase in enrollments as such.

In addition to its six core academic units or faculties, UiB’s organizational structure (figure 3 below) is composed of a number of central internal administrative and leadership units responsible for operational issues. These are centered on the offices of the Rector and the administrative director. The former is composed by the Rector and a deputy together with vice-rectors for education and
international relations, in addition to a dedicated administrative staff of three FTE (2 higher executive officers and 1 advisor). As for the office of the administrative director, it is composed of 4 FTE, seating at top a hierarchical structure composed of a total of 8 separate departments or units: real estate and facilities management (98.5 FTE); human resources (20 FTE); research management (7 FTE); communications (33 FTE); student affairs, with five distinct sections (academic organization, continue education, education development and evaluation, information and system administration, internationalization) and 82 FTE; financial services (12 FTE); health, safety and environment (10 FTE); and IT (112 FTE). In other words, UiB’s central steering core is composed of 381.5 FTE individuals. Obviously, these exclude administrative staff at the level of the individual academic units, including the central library and the University Museum.

In 2011, 780 individuals were employed as administrators across UiB. The largest administrative units, after the central administration, were the faculties of medicine/dentistry (111 FTEs) and mathematics/natural sciences (101 FTEs) with a combined 27% of all administrative personnel. In 2011, 71% of all administrators at UiB were females (DSB-SSB). The absolute size (FTEs) of UiB’s central steering core increased by 91% in the decade 2001-2011, yet in relative terms this trend was moderated by staff increases at the unit level as well. In 2001 the central administration represented 11% of all UiB staff versus 16% ten years later.

Figure 3: UiB’s Organizational Structure

Source: UiB 2012

4 For more details consult UiB’s web-site: http://www.uib.no/about/nsd/staff
When it comes to governance structures, the University Board is the highest body. It is composed of 13 core members (deputies excluded) of whom 11 are elected. These include the Rector, three academic staff representatives (one for temporary staff, 12-month mandate), one for the technical and administrative staff, two student representatives (12-month mandates each), and four external members. The University’s Director, the highest administrative position, is the Board’s secretary. The Board is responsible for approving major strategic decisions surrounding core teaching and research activities and for assuring overall quality. It is also responsible for the effective implementation of national regulations, financial and physical resources and internal organization. Board members meet six times per calendar year. The Board’s mandate (responsibilities, composition, election and appointments, etc.) as well as the roles of the senior members of the executive such as the Rector and the University Director are regulated in the 2005 Act (sections 9.1-9.8 and 10.1-10.5) regulating public universities and colleges.5

From the analysis of strategic documents no major changes in UiB’s were detected, at least not in a way that such developments led to a major restructuring of the way in which teaching and research activities have traditionally been conducted. The most salient structural adaptations (last decade) pertain to the establishment of new centers of excellence (SFFs) and applied innovation (SFIs), in addition to changes in governance structures, both aspects resulting from the outcome of policy processes driven from outside the university.

2.1.2. Budgets and Allocation Mechanisms

In Norway, the financial system and allocation of funds to higher education institutions has, over time, changed from a system where the budget was broadly based on the number of students and specified in much detail on expense categories (salaries, other current costs, scientific equipment etc.), to a new mechanism where the institutions are free to decide for themselves on how to allocate their total block grant between types of cost. Higher education institutions have, in other words, taken over several responsibilities and tasks that traditionally were in the hands of the Ministry of Education and Research. Along with, although formally a part of, the 2003/4 Quality Reform of the higher education system, a new funding system has been introduced, by which the institutional block grants are calculated according to a new formula. Under the new system, resources are distributed as follows:

➢ a **basic component**, which on average is around 60% of the total allocation;

➢ an **education component**, covering on average about 25% of the total allocation and based on the number of students credits obtained, the number of graduates, and the number of international exchange students; and

➢ a **research component**, on average around 15% of the total allocation, which is partly a result-based allocation.

The basic components cover some parts of the expenses for teaching and research so that the higher education institutions are less vulnerable for fluctuations in the number of students. The education components consist of the part mentioned above, and 40 per cent of the cost for the students is based on the credits they produce. There is no upper limit (as opposed to the research component) in the way that the universities and the colleges can increase their revenues. The subjects are divided in six different price categories based on the complexity of the teaching and the use of scientific equipment ([consult OECD 2005 thematic review](#) p. 70-75 for more details). On the demand side, all students enrolled in a tertiary study program in Norway are entitled to financial support from Lånekassen (the national student loan/grant agency)\(^6\). In Norway, no tuition fees are charged in public tertiary education.

According to recent internal reports, a nominal reduction in budget growth combined with a decrease in student credit production (calculated as 60 ECTS per academic year), has resulted in the rise of operational costs per annual study points; from NOK 294,000 (2010 figures) to 363,000 in 2011. Recent enhancements in the physical and technological infrastructures, most notably the construction of a new building for the medical sciences (odontology), have led to rise in liquidity. In 2009, UIB received a total of NOK 2,3 billion in basic funding (close to 70% of all revenues) from the Ministry of Education and Research, primarily aimed at covering operational expenses (staff and physical and technological infrastructures) and costs linked to teaching activities ([UIB 2009: 14-15](#)).

When it comes to the main **sources of external income**, the single largest provider of funding (in 2009) was the Norwegian Research Council (NFR), with 53% of the total or NOK 362 million. Other governmental agencies contributed with 16% of external funds, followed by industry/private donors (10%), and donations from public/private foundations (7%). Although EU funding (88% targeting research activities) represented only about 4% of external revenue (NOK 27 million), this amount rose by 80% since the previous year. In 2009 close to NOK 678 million or 21% of total revenue

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\(^6\) Online at: [http://www.lanekassen.no/Toppmeny/Languages/](http://www.lanekassen.no/Toppmeny/Languages/)
emanated from external sources both public and private. In 2011 (latest), NOK 280 million or 7,1% of the total revenue (of NOK 3,8 billion) originated from services provide to public and private organizations (DBH-NSD). In terms of the internal allocation of funding, personnel expenses represented, in 2009, 61% of total operating costs; an increase of 8.5% since 2008 (ibid. p, 16). Other relevant expenses include costing and other services from external parties (4.5% total), real estate costs (3,5%) and travelling-related expenses (3%). In 2009, external investments (start-ups firms and real estate) by UiB represented a book value of about NOK 53 million.

2.1.3. Other Relevant Information
Although UiB is a relatively recent university (66 years old), its scientific and educational roots can be traced back to the 1825 and the establishment of the Bergen Museum as the first ever scientific institution in the region. Three distinct personalities were thought to have played a significant role in UiB’s development as an international scientific establishment. These are: Gerhard Armauer Hansen, Vilhelm Bjerknes and Stein Rokkan. Hansen (1841-1912) was the architect behind two critical pieces of legislation around the illness known as leper. In 1875 there were around 2 100 leprous individuals in Norway, but by the time Hansen passed away this number had declined by a factor of seven, to 300 people. Bjerknes (1862-1951) is considered to be one of the founding fathers of the Bergen school of meteorology, a method that contributed to the development of new knowledge and working methods around the prediction of weather events the world over. Finally, Rokkan (1921-1979) was an internationally renowned social scientist (political science and sociology) with significant contributions in the area of cross national analysis of political systems which, amongst other aspects, have led to new theoretical breakthroughs, methods, standardization procedures, data production, and other practical aspects related to research inquiries. In addition to being the founder of Bergen-based Norwegian Social Science Data Services (Norsk samfunnsvitenskapelig datatjeneste), Stein Rokkan created UiB’s institute of sociology and was a central figure in the establishment of the social sciences faculty. Given their contributions, these scholars have helped place UiB on the international scientific map.

Below we present some historical milestones (1825-2011) in the development of UiB as an academic establishment:

- **1825**: The Bergen Museum is established by initiative of the president of the Norwegian Parliament, W.F.K. Christie.
- **1873**: Armauer Hansen puts Bergen on the world’s scientific map given its groundbreaking work around leper.
• **1892**: The Bergen Museum’s law is adopted and a public debate on the establishment of a university-college (høyskole) in the Western part of the country (Vestlandet) starts.

• **1895**: W. C. Brøgger holds a public lecture on the creation of a stand-alone university in the city of Bergen.

• **1907**: Teaching education at the Bergen Museum is initiated. The department leaders become fully-fledged Professors seven years later.

• **1938**: Establishment of the Indrebø-Commiteen, whose official mandate is to explore the establishment of a future comprehensive university in Bergen.

• **1946**: The Norwegian Parliament accepts the establishment of a new university in the city of Bergen in April 9, 1946. The law is passed on August 30 the same year.

• **1948**: Official opening of the university, based on three main units/faculties: medicine, mathematics and natural science and historical-philosophical.

• **1960**: The Kleppe Committee recommends the establishment of additional universities and university-colleges across the country.

• **1970**: Legal changes result in the Hordaland municipality taking ownership for the hospital at Haukeland. One year later, the hospital was re-established as an official university clinic.

• **1970**: The medicine and social sciences faculties are established.

• **1980**: The psychology and law faculties are established.

• **1990**: UIB is given the Bertelsmann Award for innovative university leadership beating 60 other European universities.

• **1993**: The social sciences faculty moves into a new physical facility (Lauritz Meltzers hus), hosting its central administration and four of its institutes.

• **1995**: The new law building at Dragefjellet is open.

• **1995**: Under the government’s budget, UiB receives funding for a new building dedicated to hosting preclinical (health) institutes and the institute for biological and medical psychology. The so called BBB-building (Bygg for biologiske basisfag) is completed in 2001.

• **1996**: UiB celebrates its 50th anniversary.

• **1996**: Knut Fægri, a Botanics Professor, celebrates its 50th jubilee as professor. He is the only person who was taught at UiB since its inception in 1946.

• **1999**: Professor Knut Fægri together with other six botanic colleagues receives the the Millennium Botany Award at a world congress in the US, and is celebrated as one of the most important botanic scholars of the millennium.

• **1999**: UiB selects its first female rector; Professor Kirsti Koch Christensen.

• **2000**: The Bergen Museum celebrates its 175 anniversary.
• **2003**: CMS Centre for Medieval Studies was established at UIB and is awarded the status of a Norwegian Centre of Excellence (SFF), the only such center within the historical disciplines. In addition to this, UIB host three other centers of excellence in the area of petroleum, climate and geobiology.

• **2011**: UIB solidly in the top-200 research universities in the world.

2.2. Change Processes & Use of Institutional Autonomy

2.2.1. Institutional Strategic Plan

The current strategic plan for UIB is delineated in the internal document (in Norwegian only) titled “*Strategi 2011-2015*” (16 pages). The first section of the plan (2 pages) refers to UIB as an internationally recognized research institution. An important focus is given to the fact that all primary activities are undertaken in light of the (traditional) academic values associated with the research university, namely; neutrality (disinterestedness) critical inquiry and reflection, dialogue (students and researchers) leading to new knowledge, insights, and academic formation (*akademisk danning*). The report refers to the importance of clearly delineating UiB’s tripartite roles or orientations; regional, national and international. It is indicated that the various UIB disciplinary environments have a national responsibility for developing; their disciplines, basic research, graduate-education and research-based education. The long-term strategic aim is explicitly referred to as to make UIB an internationally renowned research-intensive university which is based on a broad or comprehensive disciplinary knowledge base (breadth), combined with a tradition for specialization along a number of specific fields (depth); as is the case of the marine sciences and applied/developmental research and education (*utviklingsrelatert forskning og utdanning*).

The report highlights UIB’ critical social role in the development of Norway as a research and educational nation, but it also points to the fact that the university is a cultural institution in its own right, ruled by cherished academic values such as academic freedom (pg. 2). Disciplinary and institutional autonomy is touched upon as critical aspects, substantiated around the notion that internal organization and leadership should be anchored at the unit level (around the various disciplinary groups/milieus). Respect for the unique cultural postures and traditions of the various disciplinary environments is highlighted, an aspect taken into consideration when it comes to the devising and implementing standard operating rules and procedures (institutionalization), e.g. around the internal allocation of funds. Four additional areas are included in this first part of the strategic plan: (a) the importance attributed to the teaching-research nexus (research-based education); (b) the international component, across recruitment, teaching and research realms; (c)
the role of UiB in society; and (d) the importance of quality in the working environment. Regarding its social role, it is outlined that UIB’s main contribution is, first and foremost, around the training of graduates and the further development of universalistic knowledge (basic research).

Section two of the report sheds light on a number of key challenges facing the university in the short to mid-term. These include the following areas:

- **Quality** across the board; with reference to the fact that most of the renowned research universities (world-over) possess high international quality across its various disciplinary domains (breadth). International competitiveness (excellence) is also referred to as a major priority, given UIB’s profile as a research-intensive university, but particular importance is attributed to finding an adequate balance between equity and excellence.

- **Structural changes**; with reference to the changing conditions (national and international levels) under which UIB operates. Norway’s 2003/04 quality reform (e.g. new degree structures, funding models, etc.) and changes at the EU level (importance of ERC funding, links with society, etc.) are mentioned as key drivers.

- **Resource dependencies**; where, amongst other things, it is pointed out that a research-intensive university model, as the one adopted at UiB, requires a steady (predictable) stream of funding in order to assure international quality across a relative large (broad) number of disciplinary fields. Changes in funding structures (e.g. less full-funding for PhD positions) are seen as potential threats. A major challenge is that of balancing scarce resource allocations and, simultaneously, use institutional autonomy and scientific freedom in ways that support the further development of high (international) quality standards and contributes to a distinct institutional profile and disciplinary excellence.

- **Education, academic development and the professional life**; with a particular emphasis on the teaching-research nexus characteristic of research-intensive universities. A major challenge in this respect lies on the contribution of UiB to the development of graduate competencies needed in a knowledge-based society by continuously strengthening the research (knowledge) foundation of educational programs.

- **Internationalization**; where standings in university-rankings and international publications are increasingly important. Further, it is stated that UiB has the responsibility to address,
together with international partners, major global challenges (e.g. climate change) and to contribute to institutional/competence building overseas, even if this is not directly beneficial to Norway or contributes to national interests as such.

When it comes to its future priorities (“Vision 2015”), the strategic plan refers to the need to consolidate the international recognition of UiB as a research-intensive university in its own right. A number of strategic areas are outlined. These include: the balance between regional (Vestlandet) and national and global dimensions; quality principles, e.g. quality before quantity both in teaching and research; institutionalized traditions, competencies and interdisciplinary cooperation (an evaluation of the strategic importance of marine sciences and the internal organization of multidisciplinary collaboration is to be exercised during this period); external partnerships, at the local, regional and national levels, e.g. in the form of UH-nett Vest - a network composed of UiB and four university colleges in the region in addition to other knowledge actors such as regional research institutes.

The last part of the report is of a more operational nature, by highlighting a series of strategic aims (mission) and their respective goals per core function, namely:

- **Research**: “to have and further develop basic research of high quality across all disciplinary domains.” (my translation)
- **Research-based education**: “to have and further develop research-based education of high quality with tight coupling with research activities at the level of the academic core/research units.”
- **Education**: “to offer internationally recognized research-based education of high disciplinary quality with focus on development (danning), critical reflection and ethical behaviour.”
- **Dialogue with Society**: “to contribute with new insights in scientific thinking, methodologies and empirical results as a means of strengthening a free, critical and open (public) debate as well as knowledge-based social development processes.”
- **UiB as a working place**: “UiB requires high personal competence, a good working interaction between internal actors (academics, technical staff and administrators) and effective working processes in order to reach its common goals.”

In addition to the overall strategic framework for the university, each individual faculty is expected to develop its own strategy in light of local academic aspirations and existing competencies (teaching and research). This is particularly salient in the case of the (older) faculties of Mathematics and Natural Sciences and Medicine (consult documents pertaining to 2006-2010 period).
Finally, when it comes to the interface between UIB and the Ministry of Education and Research, the relationship between the two entities can best be characterized as a contractual one. As such, the central administration reports annually on major past achievements and short-term strategic intentions. The latest report entitled “Rapport 2011/Planer 2012” (62 pages) builds upon a framework or template provided by the Ministry highlighting key aspects pertaining to core activities, including the role of UIB in society, personnel policy, in addition to its peripheral activities (e.g. Museum) and operational plans.

As per new legislation (April 2011), the university is also expected to provide the ministry with a risk-assessment (Risikovurderinger) of its core operations and activities. The latest UiB report (above) is rather skeptical when it comes to operationalizing risk assessment in the realm of research by pointing to bottlenecks associated with the fulfillment of its long-term goals (pg. 9). In the area of education, the report sheds light on the following positive trends: (a) an increase in the number of exchange students and offers targeting international audiences; (b) stable student numbers since 2009; (c) student production, especially for short-term programs; (d) follow-up on the results from ongoing policy efforts (e.g. Kompetanse 2020); etc. The table below (consult pg. 10) provides a quantitative overview of education-related developments in the period 2008-2011.

<table>
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<td></td>
<td>2008</td>
</tr>
<tr>
<td>Avlagte 60-studiepoengenheter</td>
<td>9 855</td>
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<tr>
<td>Studiepoeng/student*</td>
<td>42,0</td>
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<tr>
<td>Utviklingsstuderer</td>
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<tr>
<td>Kandidatnøytrall</td>
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<tr>
<td>- mastergrad</td>
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<tr>
<td>- profesjon</td>
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</tr>
<tr>
<td>- bachelor/PPU</td>
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<tr>
<td>Primærerhver</td>
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<tr>
<td>Nye studenter</td>
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</tr>
<tr>
<td>Studentopptak SO</td>
<td>3 826</td>
</tr>
</tbody>
</table>

* Designet til et studineri i det foregående

The areas with a short term negative trend (2010-2011) include; student production (60 ECTS annually); absolute number of new applicants; and registered students (fall semester), as shown above.
2.2.2. Research Organization and Funding

At the level of the central administration, a research committee (*forskningsutvalget*) composed by internal actors (faculty representatives, doctoral fellows and students) and led by the pro-rector acts as an advisory body to the UiB’s Board in matters related to research policy and strategy. The former body meets around six times a year. Given UiB’s institutional profile and ambitions, research activities lie at the heart of the organization. Centrally, UiB’s Board has, in recent years, devised an operational plan (2011-2015) focusing on internationalization issues. Amongst other aspects, a strong emphasis is attributed to international research collaboration, including joint projects and publications. A number of structural measures have been introduced of late (pg. 6):

- A strengthening of the **administrative apparatuses** (support structures) aimed at increasing professionalization of international research applications, including taking a leading (coordinative) role in EU-funded projects and ERC. The responsible entities for implementing such efforts are the central office for research administration and the respective institutes at the unit level.

- The central office responsible for economic affairs is responsible for the **administrative and economic follow-up** related to projects involving UiB researchers as a means of increasing coherence, integration and efficiency.

- Together with the faculties, UiB’s central administration is responsible for devising and implementing a new system of nationally funded but locally initiated **guest research fellowships** (2-years) aimed at developing expertise and capacity building when it comes to involvement with international research projects.

- Both faculties and institutes have been urged to re-evaluate their research priorities/strategies in order to increase the number of **level-2 scientific publications** (highest) by 10%, when compared to 2010 figures.

- UiB is to explore the establishment of **joint graduate programs** (master and PhDs) across disciplinary domains considered as strategic (research collaboration), and that can directly contribute to strengthening the international dimension of educational programs.

- Together with the faculties, the central administration is to couple (integrate) several of the existing **strategic funding instruments** (*virkemidlene*) supporting international research.
• A quote system is in place regarding UIB’s involvement in research and development efforts of a more applied nature, thus addressing particular social needs/dilemmas.

• A mapping-out of formal partnerships and direct involvement with institutional (research) networks across given regions and countries by UIB’s units/academics is to be undertaken. Concrete annual plans defining the degree of international collaboration with strategic partner institutions (across teaching and research) are to be developed and implemented.

In addition to the three research centers of excellence (SFF), UiB units host one center for research-based innovation (SFI) whose core objective is that of developing knowledge in partnership with external actors like industry. Since 2007, the university hosts a center for industrial measurement science and technology (MIMT). MIMT (11 regional partners, 9 industry and 2 academia) is funded by the Norwegian Research Council (80 million NOK over 8 year period) contributes to the development of innovative solutions for the next generation of measurement technology, for the benefit of the partners, and the society in general. In addition, it also contributes to the education of PhD, MSc and BSc students (Consult UiB for an overview of other strategic research centers and unit-level research groups across the board). A key aspect of UiB’s research strategy is its active collaboration with a number of other knowledge-based units (research institutes) located within the region.

In 2011, the most productive faculties (publications points) were the mathematics and natural sciences (598.5 points), the humanities (434.2), and the medical faculty (383). Together these three units accounted for 70% of all scientific production at UiB. All in all, in 2011 UiB academics produced 1 946 publication points, a 30% rise since 2004 (earlier available). Similarly, a total of 2 500 publications (journal articles, monographs, anthologies) were produced; a 12% increase since 2004 (NSD-DBH). Whereas in 2004, 29% of all UiB publications were level II (highest), by 2011 these accounted to 26% of the total.
The table below provides an overview of recent developments (last five years) when it comes to external research funding. Overall, the data show a steady annual growth in the amount of external revenues, yet there are substantial differences from source to source, notably; the fact that funding (2011) from the Norwegian research council as well as industry/private sources declined slightly during the five year period 2007-2011, and that research funds from the EU and from private foundations/organizations have increased twofold. These trends were accompanied by an increase in funds from other state agencies, by around 30%.

| Source: UIB (2011: 23) |

2.2.3. Educational Dimensions

In Norway, universities have considerable autonomy when it comes to devising their own programmatic offerings (academic structure and course content). Even if the Ministry of Education and Research is still responsible for having an overview of the future need or demand for different
types of educational qualifications in the labor market, the responsibility for the capacity in most fields of study has, since the 2003/4 Quality Reform, been transferred to the institutions. One rationale for giving the institutions the responsibility of the capacity is that it should be easier to respond quickly to changes in the number of applicants. The ties between higher education institutions and the labor market differ between fields of study. Fields that have their main labor market in the private sector, like business administration and engineering, have a long tradition of cooperation between the higher education institutions and employers. This applies as well to some of the vocationally oriented studies (health and social work) with primarily the public sector as their main labor market. For other fields of study, there are no ties at all. How strong these ties are and what impact signals from employers have on the higher education institution and the curriculum differ from field to field. In general, the higher education institutions are responsible for the curriculum.

The latest internal reports refer that current dynamics around educational offerings are characterized by stability and consolidation. During 2011, no new studies were established and no less than five bachelor degree programs (all in the humanities) were phased-out (UiB 2011: 10-11). The report puts a strong emphasis on the quality of education and the nexus between teaching and research (research-based education). Yet, little is said about relevance and labor market linkages. This, however, should not be taken as a conclusion that these do not exist, but that a more in-depth analysis of plans and developments at the central and unit levels needs to be undertaken during the site visit. During 2010, a pilot project was initiated around five study courses that explore the linkages between science and society. The courses received praise both by students and staff, and the initiative was awarded the 2011 learning environment. Consequently, a decision was made to make those courses a permanent component of UiB’s curriculum structures through their integration in existing structures. Reviews of developments around continue education point to increasing fragmentation and low levels of institutionalization, with activities dependent on the ad-hoc actions of certain groups of university staff. As a result, during 2011, UiB’s board decided that continue education activities should be closely integrated (tightly coupled) with normal research-based education efforts at the unit level.

As far as research-based education (third cycle) is concerned, UiB enrolled a total of 2 293 PhD candidates in the 10-year period 1996-2007. Of these, 86% completed their education, usually within a 6 year time period. In 2008, a total of 19 internal units (research schools) were involved with research-based training. UiB is responsible for coordinating one of five new national research schools, and UiB academics are involved with three others. The figure below shows the historical

More recently, in 2011, UiB graduated a total of 254 doctoral candidates (figure below), an historical record, with a third of these being foreign citizens. 45% of all candidates were female (national average), the same as in 2010. These figures are even more meaningful given the reduction (40 person years), between 2010-2011, in the number of doctoral candidates funded by the Norwegian research council.\(^7\) The strategic goal (starting in 2010) stipulated in UiB’s previous strategic cycle (2005-2010) is that of 250 PhD graduates annually.

The strategic framework for research-based education is outlined in a dedicated operational plan (period 2008-2015, 12 pages) (UiB 2008a). A key principle is that all doctoral candidates should be connected with an active research environment/team and are active participants in graduate schools at the local, national and international levels. The above framework is further developed in a 58 page operational plan covering the above period (UiB 2008b). The background (macro-level dynamics) for this latter plan are the reforms in educational structures (third cycle) brought by the Bologna process

\(^7\)The corresponding figure at the national level was a 20% decline, from 928 to 745 council-funded PhD positions between 2010 and 2011.
and the need for internal adaptation, as per national regulations (quality reform of 2003/4). International dimensions have, since the previous operational plan (2007-2009) for UiB’s internationalization strategy, been contemplated. It is indicated that the recruitment of foreign PhD candidates is increasingly important for UiB, including their role in developing opportunities for international collaboration and networking activities. The use of guest professors (level II) in research-based education is also highlighted as a priority, but it is up to the various faculties to determine their own needs and aspirations. The plan refers to the need to collaborate with national employment agencies like NAV in order to establish adequate routines and procedures for the recruitment and integration of foreign PhDs at UiB. Under the NUFU and KVOTE programs, UiB has established a number of bi-lateral agreements (PhD mobility) with foreign universities. An example is Uganda’s Makerere University (last 15 years) with UiB contributing to the training of more than 30 PhDs. The annual (Bergen) Summer Research School is pointed out as a strategic arena for promoting UiB overseas and for recruiting foreign talents. Finally, internal documents put a strong emphasis on “internationalization at home” and recruitment from within targeting UiB’s master level students.

When it comes to support structures, an internal electronic system for reporting progress around research-based education was established in 2010 and further developed during 2011. The implementation of the national qualifications framework is to be undertaken during 2012. UiB has been offering a summer research school for foreign PhDs since 2007. During 2012, the university is expected to conduct a survey pinpointing the future needs of Norwegian society in terms of research-based education and competence development. Finally, a 2008 internal review committee has recommended UiB’s central administration to create a central office responsible for coordinating research-based education across the board, for example, when it comes to the establishment of administrative routines (for joint degrees, profiling, etc.) as well as the interaction with external government agencies (UiB 2008a). Responsibility for content and structure lies in the academic units themselves.

2.3. Personnel Policies

The strategic documents put a strong emphasis on recruitment of talented students and staff both nationally and internationally (UiB). UiB staff, as is the case with all Norwegian public HE institutions, are considered state employees (civil servants). As far as the recruitment of scientific personnel, internal policies are regulated at the national level, going back to legal changes in 2005 (Universities and University Colleges Act). Since 1995, following the Act on Universities and Colleges, the higher education sector has essentially experienced a common appointment structure. The permanent
academic positions are professor, associate professor, senior lecturer, assistant professor and researcher. University colleges have two additional positions; college reader and lecturer. Senior lecturer and assistant professor positions are rarely used in the university sector. Subsequently, in reality universities now have only two kinds of permanent positions – professor and associate professor. The requirement for obtaining tenure at a university is a doctoral degree or equivalent, which automatically qualifies for an associate professorship for those appointed to a university academic position. In general, academic staff in Norwegian higher education have salaries that are comparable to other public employees, but low compared to their counterparts in industry and the business sector. Increasingly, salaries are set through negotiations between the unions and institutions within the limits of the pay scale and according to a set of different criteria of which the applicant’s productivity in research and market value are the most important. Most salaries for these positions tend to be at the lowest level or close to this, but during the last few years higher education institutions have increasingly applied the span of the pay scales to reward staff members essentially on the basis of academic competence. (For more details, consult chapter 7 - “resourcing HE”- of the 2005 OECD report on Norwegian HE).

One of the key features regarding UIB’s personnel policy is promoting equality (gender, ethnical background, language, religion, political views, etc.) across the board. This is highlighted in a dedicated strategic plan for the area (2011-2015). Gender equality is of particular relevance given the historical unbalance (academic staff) at Norway’s universities, particularly when it comes to professorial positions. The latest internal figures (2010) suggest that females composed: 60% of all students; 52% of all PhDs and 48% of postdocs; about 36% of all associate professors and 22% of all professors (ibid p. 2). According to UiB, the policies of gender equality implemented in the last decade or so have had positive results, particularly at the PhD and postdoc levels (50% females). There are however variations across subjects, for example 67% of all PhDs in medicine and psychology are females but, only 37% in the natural sciences. There are also substantial variations in the number of females permanently employed as associate professors; 60% in psychology vs. 14% in natural sciences. The relative number of female professors at UIB in the last decade (2000-2010) has increase twofold, from 11 to 22%, with growth across all units, including the faculty of mathematics and natural sciences which leads in terms of growth rates. In 2010, 43% of all new professors were females. Half of all professor II positions (usually about 20%) are occupied by female academics. As for technical and administrative positions, substantial gender representations have occurred in the last decade. In 2010, half of all middle management positions and 46% all senior managers at UIB were females.
A major challenge/opportunity regarding recruitment pertains to the fact that about 250 UiB academics will reach retirement age in the period 2011-2014. The faculty of medicine in particular has a number of male academics that belong to this group, hence representing an opportunity for further gender re-balances (or new gender unbalances), also given the fact that, on aggregate, females outnumber males across the entire HE sector, particularly across the university sub-sector.

When it comes to salary structures, little public information is available as to make an adequate judgment when it comes to UiB, although, in Norway, there has been a general move in recent years towards allowing higher education institutions stronger autonomy in the definition of staff salaries (following the stipulated governmental salary scale or categories), as well as in setting internal regulations for the employment and dismissal of academic and administrative staff.

3. Overall Impressions

Recent reform efforts have strengthened the autonomy enjoyed by Norwegian higher education institutions, particularly universities. These are relatively autonomous when it comes to the internal allocation of funds (in light of strategic objectives), the setting of new programmatic structures and educational courses, student enrollments (new entrants), as well as staff-related dimensions like recruitment. Their freedoms are, still, relatively restricted when it comes to the ownership of physical facilities and the setting of staff remuneration structures.

As for UiB, the university faces a number of key challenges, chief amongst these is a steady decline of student enrollments (by a fifth in the last decade alone) and increasing competition, nationally and internationally, for students, staff and external funding. The relationship between UIB and the Ministry is increasingly based on formal contractual agreements, with special attention paid to quality control/accountability and performance (efficiency) measures. The governance of internal affairs is undertaken against the backdrop of broader social and economic developments (and external interests) both in Norway and overseas, particularly within Europe. There is a growing tendency for centralization of decision-making activities and for stronger institutionalization (internal rules and procedures). This is illustrated by the doubling (in size) of UIB’s central steering core in the last decade, against a steady decline of student enrollments. As a result of reform efforts in the last decade, UIB enjoys stronger autonomy in the internal allocation of block-funds emanating from governmental agencies. Performance based measures and the need for additional streams of income have become increasingly pronounced in recent years, as illustrated by the rise (80% in the last year alone) in EU-funds.
Finally, UiB’s strategic plan emphasizes the research-intensive profile of the university and the development of scientific excellence (e.g. SFFs and SFIs) along a selected number of areas such as the marine sciences. Yet, the approach taken so far seems to be largely on the grounds of allowing all disciplinary domains (breadth) and groups to make a sustainable contribution to the university’s future rather than discriminating a few areas as targets for major resource allocations. An ongoing effort is being undertaken in terms of balancing societal needs and expectations with traditional academic values across the entire university and bearing in mind disciplinary postures at the unit level. Coupling between teaching and research activities and the recruitment of talented students and staff (domestically and internationally) are highlighted as strategic priorities going forward.
### Appendix

**Table 1: Composition of internal units**

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Departments</th>
<th>Research Centers/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Humanities</strong></td>
<td><strong>Total of six</strong></td>
<td><em>Medieval Studies</em></td>
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<tr>
<td></td>
<td><em>Foreign Languages</em></td>
<td><em>Women’s and Gender Research</em></td>
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<tr>
<td></td>
<td><em>Philosophy</em></td>
<td><em>Sciences and the Humanities</em></td>
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<tr>
<td></td>
<td><em>Music (Grieg Academy)</em></td>
<td><em>Music Therapy Research (Grieg Academy)</em></td>
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<tr>
<td></td>
<td><em>Archaeology, History, Culture studies and Religion</em></td>
<td><em>Middle Eastern and Islamic studies</em></td>
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<tr>
<td></td>
<td><em>Linguistic, Literary and Aesthetic studies</em></td>
<td></td>
</tr>
<tr>
<td><strong>Law</strong></td>
<td><strong>Not applicable</strong></td>
<td>See <a href="#">here</a> for an overview of the various research groups – not formal research units</td>
</tr>
<tr>
<td><strong>Mathematics &amp;</strong></td>
<td><strong>Total of eight</strong></td>
<td><em>Climate Research (SFF)</em></td>
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<tr>
<td><strong>Natural Sciences</strong></td>
<td></td>
<td><em>Integrated Petroleum Research (SFF)</em></td>
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<tr>
<td></td>
<td><em>Biology</em></td>
<td><em>Geobiology (SFF)</em></td>
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<tr>
<td></td>
<td><em>Molecular Biology</em></td>
<td><em>Pharmacy</em></td>
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<td></td>
<td><em>Chemistry</em></td>
<td><em>Science</em></td>
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<td></td>
<td><em>Earth Science</em></td>
<td><em>Laboratory for Electron Microscopy</em></td>
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<td></td>
<td><em>Geophysical Institute</em></td>
<td><em>Science Library</em></td>
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<tr>
<td></td>
<td><em>Informatics</em></td>
<td>*Bergen Museum</td>
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<tr>
<td></td>
<td><em>Mathematics</em></td>
<td>*Michelsen Centre</td>
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<tr>
<td></td>
<td><em>Physics and Technology</em></td>
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<tr>
<td><strong>Medicine &amp;</strong></td>
<td><strong>Total of eight</strong></td>
<td><em>Laboratory Animal Facility</em></td>
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<td><strong>Dentistry</strong></td>
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<td><em>Biomedicine</em></td>
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<td><em>Clinical Medicine</em></td>
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<td><em>Surgical Sciences</em></td>
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<td></td>
<td><em>Clinical Dentistry</em></td>
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<td></td>
<td><em>Public Health and Primary Health Care</em></td>
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<td></td>
<td><em>Institute of Medicine</em></td>
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<td><em>The Gade Institute</em></td>
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<td></td>
<td><em>International Health</em></td>
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<tr>
<td>Psychology</td>
<td>Total of five</td>
<td>Social Sciences</td>
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<tr>
<td><em>Biological and Medical Psychology</em></td>
<td></td>
<td><em>Geography</em></td>
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<tr>
<td><em>Clinical Psychology</em></td>
<td></td>
<td><em>Sociology</em></td>
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<tr>
<td><em>Education</em></td>
<td></td>
<td><em>Economics</em></td>
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<tr>
<td><em>Health Promotion and Development</em></td>
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<td><em>Social Anthropology</em></td>
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<tr>
<td><em>Psychosocial Science</em></td>
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<td><em>Comparative Politics</em></td>
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<td><em>Information Science and Media Studies</em></td>
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<td></td>
<td></td>
<td><em>Administration and Organization Theory</em></td>
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</tbody>
</table>

SFF = Norwegian Center of Excellence

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8 Online at: [http://www.forskningsradet.no/prognett-sff/Home_page/1224067001813](http://www.forskningsradet.no/prognett-sff/Home_page/1224067001813)