

Consultation document for UiO's strategy 2010–2020

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1. Introduction

1. In April 2010 the University Board will adopt a new strategy for the period 2010–2020. This consultation document contains proposals for the main themes of the new strategy. The strategy to be adopted will be more concise than this document. However, in order to generate the best possible dialogue within UiO, we deliberately present at this stage a paper with more room for reasons and descriptions of the context.

2. Good knowledge and strong environments are built up over time. The coming strategy therefore has a ten-year perspective. It will be designed as a roadmap that indicates the key directions for UiO's position by the year 2020. The overarching objective and the six main goals will provide guidelines for the entire ten-year period. The accompanying six principal challenges have shorter time perspectives (two to four years). The final strategy document will indicate milestones at which progress and goal achievement will be assessed in the light of changing circumstances and new initiatives as 2020 approaches.

3. Our ambition that in the period to 2020 the University of Oslo will attain a position among the best research universities in Europe – universities where education, dissemination and research interact to secure optimal results. UiO has much to be proud of and is developing well in many areas. Nonetheless, we believe that the University has not yet reached its full potential as a contributor to the global knowledge pool. Our substantial resources, both human and material, can be more fully exploited in the future. The proposed overarching objective is therefore that **the University of Oslo shall strengthen its position as an outstanding European research-intensive university and place of learning, with an action-oriented social commitment**. This means that *the entire university must do its utmost* to achieve this objective and must increase its endeavours to cultivate a global outlook.

4. Attaining this objective involves integrating research, education, innovative efforts and our dialogue with society *more closely with each other* and with administration, operations, HR, buildings, technology and other infrastructure. This consultation document is therefore structured so that all UiO's tasks and resources are viewed as a whole rather than according to the usual threefold division of 'primary tasks' (research, education and 'knowledge in use').

5. UiO's collective strategies for 2010–2020 will consist of an overarching strategy for UiO as well as more detailed strategies for each faculty, library, museum and centre. The faculties' strategies will underpin the overarching strategy, but will also take into account the individual orientation and particular challenges of each faculty. The faculty strategies will be approved by the faculty boards by 30 June 2010.

6. The document is organized to address the following: the purpose of UiO, the *international trends* that will bring opportunities and limitations for the university in the years ahead, *the current position of the University of Oslo* and the *main goals* and subgoals UiO should work towards up to 2020. The *challenges* UiO faces in achieving these goals are then described, bearing in mind the criterion: *What areas can the University itself act upon?*

7. We hereby invite everyone at UiO to submit feedback on the consultation document, particularly on the suggested challenges (Chapter 7). Are these the right challenges? Will they help us to fulfil UiO's ambitions and to face the challenges envisaged by the various units? We also ask you for: a) input regarding good **indicators** for the overarching objective and the main goals – not necessarily quantitative, although we must be able to measure progress and reveal stagnation, and b) suggestions

*for **specific action and initiatives** that we at the university can implement to meet our challenges and realize our ambitions.*

8. The closing date for comments is 29 January 2010, and the date for the final adoption of the strategy is 27 April 2010. More information can be found on the website for the strategy process:
http://www.uio.no/for_ansatte/organisasjon/strategi/strategi2010_2020/english.html

Ole Petter Ottersen, Rector

Gunn-Elin Aa. Bjørneboe, University Director

2. What is the purpose of UiO? Our social responsibility

9. Universities are such an obvious and important part of a civilized society that we in academic circles tend to assume that their existence does not need justification. Oxford University is more than a hundred years older than the Magna Carta, Harvard University is 140 years older than USA's Declaration of Independence, and the University of Oslo celebrates its 200th anniversary three years before the anniversary of the Norwegian Constitution. Moreover, the University has proved to be an extremely robust form of organization combining tradition and stability with flexibility and the ability to grow. The fundamental activities, such as the development of new knowledge through research and the transfer of knowledge through education, have continued without interruption for centuries.

10. Traditionally, universities have made their contribution through four tasks; *education, cultural insight, research* and *participation in social debates*. 1. Universities educate graduates through the dissemination of research-based knowledge and by training them to acquire the skills necessary to accumulate knowledge and use it in practical applications. Universities started as professional studies institutions responding to society's need for theologians, lawyers and doctors. From as early as 1811, UiO's social responsibility has largely been associated with educating graduates for the education system, government administration, the legal system, hospitals and the business sector. 2. Universities promote graduates' cultural insight by training them in the skills of critical reflection and interpretation, by imbuing them with "a scientific mindset and cognitive learning, a deeper understanding, theories of objectivity, and ethical competence",¹ and by providing them with an academic approach to presenting and testing arguments.

11. 3. Universities develop new knowledge through research, and assure the quality of this knowledge through academic debate among peers. In this tradition, the quality criteria that are applied to research are variations of those presented by Michael Polanyi in "The Republic of Science" (1962): a. *Plausibility* – the results tolerate presentation for critical verification, b. *Intrinsic scientific value* – relevance for other researchers, and c. *Originality* – the extent to which the results represent new or surprising insight. "Social relevance" is not a dominant criterion. 4. Universities also traditionally contribute to illuminating social debate through scholastically verifiable arguments and the application of an academic approach.

12. These are timeless tasks that are as crucial in the globalized knowledge community, where higher education has become a phenomenon for the masses, as they were in industrialized societies where higher education was reserved for the few. However, the notion that these are tasks that can be performed today by universities that operate in self-chosen isolation – as monologues from the ivory tower – is about to be overturned.

13. In addition to the four traditional tasks, universities have been assigned and have assumed new tasks over time. These are often called "the social assignment" in departmental jargon, but they can just as easily be seen as an integral part of the social responsibility that is naturally attributed to modern universities. This entails universities being expected to exert a far stronger direct influence on society at large: innovation and using knowledge to resolve society's different challenges represent the unique ability of universities to mobilize knowledge – often across traditional discipline borders. This is no recent discovery: so-called land grant universities in the USA, most notably the

¹ Unofficial translation: from the report in Norwegian on knowledge and cultured education for the new century, written by the Committee on Cultured Education. http://www.uio.no/om_uio/uttalelser/dannelsesutvalgets-sluttdokument.pdf

Massachusetts Institute of Technology (MIT), were established for the purpose of more direct social benefit than classical universities such as Oxford and Harvard.

14. The “social assignment” demands a genuine dialogue with the surroundings, conducted in a manner that can affect the university’s priorities within both research and education. A dialogue of this type can enrich and challenge universities, or it may have a restrictive and delimiting effect. This depends on the orientation of the dialogue and on whether and to what extent it challenges the university’s ability to set its own priorities. If it takes place sufficiently on the university’s terms, dialogue can identify to significant issues that are amenable to research and may provide a foundation for major scientific development. This dialogue is becoming increasingly important, also because resources from the university’s dialogue partners may ensue – whether they are ministries, the Research Council of Norway, the various EU programmes and policy instruments, or other external partners – for example the South East Regional Health Authority with its affiliated hospitals.

15. In the book “Pasteur’s Quadrant”,² Donald Stokes shows that there is no inherent conflict between free basic research and application – in spite of the common definition of basic research as “experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts without any particular application or use in view”.³ The search for new fundamental insight is independent of the motivation for the search. Stokes refers to Niels Bohr as an example of a person who conducted basic research without considering its application. He uses Louis Pasteur as an example of an individual who conducted basic research with very clear motives for its application. And he gives Thomas A. Edison as an example of someone who was driven by strong motivation to make practical use of new facts but who was less concerned about developing fundamental new knowledge. These examples highlight the fact that “an orientation towards usefulness” and “basic research” can undeniably be combined. At the same time it is difficult to visualize a university of UiO’s type that does not make considerable provision for basic research that is only driven by the search for new insight – regardless of the prospects for application. To an increasing extent, basic research of outstanding quality is also regarded as universities’ unique contribution to innovation.⁴

16. One criticism levelled at the basic research concept as discussed above is that it is most relevant for “science” and less relevant for the humanities and social sciences. In the hermeneutic tradition, the difference between “basic research” and “application” will often be subordinated to the freedom to interpret and re-interpret the past and the present from original or critical perspectives. Anthony Giddens’ concept of “double hermeneutic” refers to the interaction between researchers and the social parties who are affected by the research: their understanding is influenced by the researcher’s interpretation. Research thus inevitably intrudes on the reality into which the research is

² Donald Stokes, “Pasteur’s Quadrant” (1997), Brookings.

³ *Frascati Manual 2002 Proposed Standard Practice for Surveys on Research and Experimental Development*, OECD, Paris 2002, p 77.

⁴ In a report written for Gordon Brown, Prime Minister of the UK, “Higher Education and Collaboration in a Global Context – Building a Global Civil Society” by Rick Trainor, Principal of King’s College London, and John Sexton, President of New York University, ‘blue skies research’ is “research undertaken for knowledge’s sake, to probe theoretical boundaries but without immediate applied value – [...] the driver of innovation. Universities, and a handful of government laboratories, are now the only sites at which such fundamental research is conducted.” (p. 20). <http://www.international.ac.uk/resources/Final%20Report.pdf>
This can to some extent be interpreted as a “neo-linear innovation model” in contrast to the criticism of recent years of the linear innovation model that has prevailed since Vannevar Bush’s “Endless Frontier”.

being conducted. “Basic research” can thus intentionally or unintentionally be “applied” because it intervenes in the understanding of the episodes, actions and phenomena in which social parties are involved or have interests. Research thus gains influence through the double hermeneutic concept, but thereby also responsibility⁵ – at least if consequential ethics are applied.

17. It is often argued that dialogue with the external community, represented particularly by the various government players or commercial entities, can threaten academic freedom,⁶ which must be viewed as an irreplaceable and defining quality of a university. The argument can be a natural reaction to the fact that the university’s contact with society at large, represented by the state, increasingly consists of monologues and politically-motivated earmarking as well as limited thematic initiatives where the search for new knowledge in the traditional sense is clearly overshadowed by an instrumental wish to solve a politically defined and limited problem.

18. The motivation for this stronger governance on the part of the state can be found in the steadily growing recognition of universities as vital institutions in the emerging knowledge society, institutions that can make us capable of resolving the main challenges of the future. UiO is expected to admit and educate new large groups of young people, at the same time as the requirements regarding higher quality and a more extensive scope of research have intensified. Moreover, universities utilize an increasingly large proportion of society’s resources – such as researchers, students and money. All these resources are of necessity among the most productive in society and therefore have a valuable alternative use. The state is thus increasingly insistent that universities explain their use of resources. Requirements regarding good and efficient administration and financial management are also intensifying. Nevertheless, one of UiO’s great challenges is to maintain, and preferably to extend, the university’s strategic capacity and autonomy in this situation.

19. For UiO, the acknowledgement of universities’ importance in resolving the large-scale social challenges of the 21st century entails a corresponding *social responsibility*. This strategy process therefore has a dual purpose: it must help to clarify firstly how UiO can become a better university, and secondly how UiO can better fulfil its social responsibility. In order to realize these combined goals, it is important to reinforce the dialogue between UiO and legitimate interested external parties. As well as strengthening *academic quality*, UiO must also enhance its profile as a *socially engaged* university.

20. In the coming ten-year period, UiO’s aim will be to define and fulfil its social responsibility with even more clarity as a globally-oriented, research-intensive university characterized by high-quality research and education and active participation in society at large – in line with some of the top universities in Europe.

⁵ See for example Ottar Brox’ report in Norwegian on knowledge and power – *Kunnskap og makt* – in the series of reports from the research group on power and democracy.

<http://www.sv.uio.no/mutr/publikasjoner/rapp2000/rapport12.html>

⁶ Defined by the Underdal committee for academic freedom as: 1. A freedom to question – also to question what authorities consider to be established knowledge and understanding, and to question issues and assumptions to which strong interests or emotions are tied. 2. A freedom to decide what material and which methods to use in the search for answers: more precisely a true and valid answer. 3. A freedom to publish hypotheses, results and arguments (page 9 of the official English translation).

http://www.regjeringen.no/upload/kilde/kd/hdk/2006/0011/ddd/pdfv/292853-nou019_06_akademisk_frihet06.pdf

3. UiO today

21. UiO has high ambitions for its long-term development.⁷ In order to draw up an appropriate plan for how UiO is to achieve its goals we need a clear perception of many elements: our role, the goals we are working towards, forces that help or inhibit us (including emerging trends), and an assessment of where UiO stands today. We need a status report of UiO's academic quality and production, our areas of academic strength, including our resource base of international collaborations and the interfaces and platforms for such collaborations. We also need to know how we are regarded externally; our reputation is very significant both for recruitment and for our attractiveness as a partner – internationally, nationally and regionally.

22. The picture of UiO today, the focus of this section, is a good starting point in several ways. It provides a basis for assessing progress or setbacks and for building on the strong points of our activities and organization, and it helps us to identify challenges that affect us negatively. Some features of UiO's position are described below, based on selected indicators, and an evaluation of UiO's strategic development work is presented on the basis of a review of the current strategic plan: SP 2005–2009.

23. As far as possible this picture must be based on good data. In recent years UiO has made considerable progress in improving statistical information and documenting results, and the university has a leading position on research documentation. This work must continue: greater autonomy involves also increased obligations as regards documenting results. Result indicators will be further developed both in the Norwegian context and in connection with the international ranking of universities.

24. Profile and size

25. UiO is a university of great breadth in its range of academic disciplines and scientific competence, in the number of employees and students, and in the type of its activities. This breadth reflects a traditional desire for a diversity of activities, and UiO regards this as a major dynamic factor for the future. UiO's broad profile has become increasingly important as a basis for further development – particularly as a foundation for education and cross-disciplinary research and for the large-scale global challenges to which UiO now wishes to assign higher priority. This requires collaboration between a wide range of academic areas of competence.

26. UiO has previously made a conscious choice about its profile as a research-intensive university and has worked systematically to clarify and strengthen this profile. These efforts have given all faculties and university museums a clearer research focus, including faculties with a weaker research tradition. All UiO's faculties now have a more ambitious research strategy. UiO's aim of becoming an outstanding European research-intensive university has been acknowledged by the Ministry, which means that in the future UiO will intensify its focus on its international orientation.

27. The profile for basic research and researcher-initiated research currently holds a strong position at UiO and represents a clear advantage in the light of future trends. For example, researcher-initiated basic research and more venture financing are expected to become more significant in relation to innovation and radical solutions. Top quality, critical mass and/or outstanding research leaders in basic research projects have proved to be crucial for willingness to invest in research-based innovation.

28. At the same time UiO is attempting to ensure that academic fragmentation, a lack of critical

⁷ See separate document giving an assessment of UiO's follow-up of the current strategic plan. This document can be accessed at UiO's website for the strategy process.

mass and an over-extensive spread of resources will not undermine academic quality and leave the various environments less robust and less competitive in the face of future challenges. UiO's comprehensive review of long-term normative academic priorities has made the university more capable of consciously supporting subject areas where robust communities, groups and individual researchers have been identified and where the university has a potential for greater strength. This will entail a somewhat higher degree of concentration and will contribute to creating a clearer academic profile.

29. With 6,000 employees and 25,000 students, UiO is the largest university in Norway. It has approximately 30% more researchers and students than the Norwegian University of Science and Technology (NTNU), and twice as many as the University of Bergen. In a Nordic perspective, UiO has about the same number of academic staff members and students as the universities of Stockholm, Lund, Gothenburg and Aarhus, and more than the University of Uppsala. In Scandinavia only the universities of Copenhagen and Helsinki have more students and employees than UiO, while in a European context UiO is the same size as both Oxford and Cambridge (although these have somewhat fewer students and rather more academic employees). Moreover, UiO is approximately as large as Harvard University and twice as large as Yale.⁸

30. UiO's size does not automatically indicate the quality and potential of the institution. However, its size coincides with other advantages, notably its leading national position and promising international standing, and its location in the region of the capital city with the country's densest concentration of knowledge-intensive undertakings. This combination gives UiO an excellent basis for attaining its own goals and for making a crucial contribution to the development and sharing of knowledge, both globally and locally.

31. Academic quality and production, based on selected national and international indicators

32. (1) In a national context, and based on the four indicators that the Ministry of Education and Research uses in the government's financing model for research (see table),⁹ UiO scores higher than the three other broad-based universities. UiO is responsible for approximately one-third of all academic production and externally-funded research in the university and university college sector.

Table 1 Ministry of Education and Research's four indicators for the financing model for research (average for 2004–2008)

	UiO	NTNU	University of Bergen	University of Tromsø
Publication points per permanent academic position	1.05	0.74	0.91	0.68
Research Council of Norway allocations per academic man-labour year (1000 NOK)	198.73	197.14	179.58	186.21
EU allocations per academic man-labour year (1000 NOK)	15.30	12.31	13.90	10.10
Doctoral degrees per academic man-labour year	0.17	0.16	0.15	0.11

⁸ Source for employee and student figures: Times Higher – QS World University Rankings 2009.

⁹ The definition of an 'academic man-labour year' is taken from the Ministry of Education and Research data specifications for governing parameters.

33. (2) With regard to UiO research environments' success in competition-based research funding, the picture is promising although mixed when quality is considered. For projects within the EU's funding schemes, figures for allocations from the EU's sixth and seventh framework programmes show that UiO has been relatively successful for several years in both a Norwegian and a European context. In the sixth framework programme, UiO had an acceptance rate of 31%, while the EU average was 18.6%. Nationally UiO had twice as many EU-funded projects as NTNU, which had the next highest number of projects in Norway. However, in the seventh framework programme the success rate so far is somewhat lower (21% at June 2009). Having a considerable number of projects funded by the new European Research Council (ERC) holds considerable prestige for universities, and so far UiO has only two projects, while the University of Helsinki, for example, has seven.

34. Of the Research Council's 21 Centres of Excellence, eight are located at the University of Oslo. In the most recent allocations, UiO was awarded five out of eight new centres. However, of the 14 Centres for Research-based Innovation, only one is located at UiO. In the light of our potential, this is not satisfactory.

35. (3) Since their introduction at the beginning of the millennium, global university rankings have attracted considerable attention. Despite some weaknesses, their use will probably increase in the years ahead. In the two most prestigious global rankings – Shanghai (Academic Ranking of World Universities – ARWU) and the Times-QS (Times Higher Education Supplement), UiO is placed 65th and 101st respectively.

36. On the Shanghai ranking for 2009, UiO is 18th in Europe and 3rd in the Nordic countries. The two highest ranked Nordic universities are the University of Copenhagen and the Karolinska Institutet. Both the ARWU and the Times use citation indexes. Even though indicator has some academic distortions,¹⁰ it does provide a general picture of the quality of scientific articles. The Shanghai ranking is based to a larger extent than the Times-QS on individual performance – institutions are assessed against prizes won by former students and by employees and against articles published in 'Nature and Science' – as well as on an indicator that counts the number of researchers on the list of highest-cited researchers within their field of study. In other words, these are indicators that refer to the institution's best researchers and research groups.

37. On the Times ranking for 2009, UiO is 33rd in Europe, and 5th in the Nordic countries, where Copenhagen, Aarhus, Lund and Uppsala are ranked higher than UiO. The Times ranking focuses particularly on internationalization, reputation and the relationship between the number of researchers and students. The assessments have improved substantially and reflect the universities' quality through the evaluation of their reputation supplied by research environments and the business sector.

38. (4) To shed light on the university's general reputation, UiO conducted its own reputation survey¹¹ in 2008. This involved its closest partners in politics, government administration, the business sector, organizations and the education system, as well as leading representatives from research and

¹⁰ Data from Thomson Reuters ISI Web of Knowledge (ISI Highly Cited) shows that Norway has 14 highly-cited researchers, six of whom are affiliated to UiO. These are the latest statistics and are based on articles published in the period 1981–1999. Hence, Norway has some way to go before it attains the Nordic level: Sweden has 63 highly-cited researchers, Denmark 31 and Finland 18 (USA has more than 4,000). At institutional level the universities in Copenhagen and Lund have most highly-cited researchers (11), while the universities of Stockholm and Uppsala are on the same level as UiO.

¹¹ *UiO: I andres øyne..* (UiO: In others' eyes.): report from the reputation analysis of key target groups, 2008.

higher education. The feedback indicated that the university was expected to be more visible, more open, and more action-oriented vis-à-vis society at large. However, respondents also expressed great confidence in UiO's ethical standard, and expressed the view that UiO can be trusted.

39. UiO enjoys a high level of popularity among its own students; approximately 80% say that they would recommend studying at UiO to others.¹²

40. UiO's strategic development work in the period 2005–2009

41. In many fields, UiO has made good progress towards the overarching goal of its strategy for the period 2005–2009: the university has to some extent strengthened its profile and its position as a research-intensive university. Overall, the overarching goal and strategy has had its most pronounced effect on research activities. A major challenge for the new strategy will therefore be to enhance the ambition to be a research-intensive university for other parts of UiO's activities and for the organization's collective resources.

42. Many of the goals in SP 2005–2009 are still relevant and can be used in the future. There are some points where there is a need to clarify the general direction or to intensify the current strategy – especially in the light of the desire for a long-term perspective for the pending plan. This particularly applies to:

- a. Recruitment and follow-up: the plan is thorough, but it expresses little urgency about the competitive situation that is expected to arise in the global academic labour market. More action-oriented recruitment efforts must be made, with clearer principles and ambitions than those set out in the current strategy. One crux is how to actively utilize the scope for action which arises when significant numbers of staff reach retirement age.
- b. Organized research training: UiO has high ambitions as a research-intensive university, makes substantial investments in research training and provides attractive framework conditions for PhD candidates. Its organized research training must maintain an outstanding quality and keep pace with those at the forefront of research, and the university must ensure that resources are used strategically. The current plan offers no specific direction and level of ambition, and the international perspective is lacking.
- c. UiO's education policy: both the strategy and its follow-up – including the process of setting academic priorities – demonstrate the need to elevate and clarify ambitions. We must express more clearly the needs for change that are to be given particular attention and the educational options for which we wish to retain responsibility. UiO's role in lifelong learning should also be clarified. UiO is expected to maintain, and in some areas to improve, its quality of education.
- d. UiO's social responsibility and knowledge in use (the third task): the current strategy shows little ambition in this area and demonstrates to only a limited extent how UiO as a whole fulfils its social commitment. UiO's work on realizing its social responsibility is not in line with that of leading international universities, i.e. the total outcome of the interaction between research, education and innovation (the knowledge triangle). UiO is expected to intensify its commitment to the "social assignment".
- e. Internationalization: UiO has a comprehensive international cooperation, particularly within research, and has an excellent basis for further development in this field. The international perspective can be found in UiO's current strategy, but it does not provide sufficient direction and urgency in the light of the universities' intensified role as global players and the pressure exerted on their ability to participate in demanding competitive and collaborative arenas. New platforms for international cooperation and greater collaboration through networks, large and

¹² *Studentspeilet* student surveys of 2005 and 2007.

complex projects, the European arena's increased importance and opportunities, and the growing exchange of students all suggest that UiO should strengthen its strategic focus on internationalization efforts.

- f. Financing: UiO needs a strategy to consolidate its financial basis. Strategic freedom of action must be enhanced in order to strengthen UiO's opportunities to pursue its own priorities and to safeguard its autonomy. The university must reinforce its ability to apply for the most appropriate external funds and to take advantage of the financing opportunities that are expedient for the university – particularly those within the EU and parts of the Research Council of Norway. The political authorities expect UiO to raise its level of ambition regarding acquiring funds from both the EU funding schemes and the Research Council's thematic programmes.

Infrastructure costs exert considerable pressure on UiO's finances. Large parts of the UiO buildings are technically outdated and not very functional. Substantial investments are required, as also to cover the replacement of technical systems. Some of the buildings no longer comply with either current laws and regulations or more recent requirements regarding universal design. There is also a need for functional upgrading and adaptation to new research activities, new forms of teaching and of learning environments, and optimal use of the buildings. Even though the maintenance budget has been increased and significant refurbishment has been carried out within UiO's budget, we still face major challenges in this area.

4. Global trends of importance for UiO

43. A ten-year strategy for the University of Oslo demands a detailed understanding of global¹³ trends that affect the national systems for higher education and research through national knowledge policy and its Europeanization, but that also have a direct influence on the sector's universities.¹⁴ Below we give an overview of factors that will affect UiO in the coming decade. This is based on reports, statements and dialogues between key players, and on analyses of national and international research environments. Several of the trends are part of a deliberate policy by national and supranational authorities to create greater dynamism in the knowledge society, with the universities in particular expected to play a more central role than previously. These trends present both limitations and opportunities for universities.

44. Globalization and its implications: Universities are becoming aware of the consequences of the increasing globalization of the academic labour market. More students want to study, and more researchers want to conduct research in other countries. This is accelerated by various measures to increase international academic mobility, and by the intensification of competition for those with the best qualifications. This means that institutions that want to attract more of the best-qualified people must develop a clear HR strategy and operate an active recruitment policy at all levels. Moreover, globalization means that funding is also becoming more global – both from the public sector and from private sources. International university rankings are also an outcome of globalization: the universities' global status acquires greater importance, and several countries have developed a clear strategy to strengthen their institutions as worldwide players. At the same time, leading universities are in the process of becoming independent global players with looser ties to their countries' nation-building projects.

45. The knowledge society and the universities' extended role in the knowledge economy: Competence, knowledge and technology will be the most important part of the necessary adaptation to a competitive and sustainable knowledge economy. Expectations about universities' social responsibility are rising. The ability to participate in knowledge and technology development and to put knowledge and technology into rapid circulation between the sectors in society has become crucial in the global market. For example, information technology will be a powerful force for change in the years ahead. In research, IT is incorporated into all parts of research activity – the research process, methodology development and research dissemination. New students will barely recognize an era without universal access to the Internet and to global sources and dialogue. In the EU, the OECD and in new networks between universities, it is agreed that the modernization of universities will extend over all areas. Universities will, for example, be required to formulate their own role in society more clearly, to develop a strong leadership

¹³ The use of the term *global* in this document refers to the extensive and fast-growing cooperation and competitiveness, and the mutual influence, interlacing and interdependence arising across regions, countries, sectors and cultures that apply worldwide. But it *also* refers to the global perspective that is grounded in the history of the university in the sense that cooperation on knowledge has always had a dimension beyond national concerns and cooperation between states. On the other hand, *internationalization* is partly a strategy to meet globalization, but also refers to a somewhat narrower phenomenon that is linked to cooperation and contact between countries and institutions. Although the internationalization concept is nonetheless used frequently in this document, it is used precisely as a strategy for actively meeting the challenges and opportunities associated with global circumstances, and also because the alternative – *globalization* – refers to a larger and often normative debate on the content and the value of this phenomenon.

¹⁴ This chapter is an extract from a longer document that has been posted on UiO's website for the strategy process.

culture, to understand their role as a growth instigator in the local and global economy, and to create more dynamic integration between activities in the fields of education, research and innovation.

46. The European arena will have a greater impact on universities – both directly and through the Europeanization of national knowledge policy. The EU is the strongest force for changes in the European university sector. This applies directly through policy development, through the member states' authorities, and through the funding of research via framework programmes and joint programming. It also applies through the linking of the EU's own knowledge policy with the Bologna process and the development of Europe as a common educational area. The EU recognizes the need for changes in European knowledge systems, with an emphasis on cultivating elite universities, and provides strong incentives for excellence in the entire knowledge triangle. Moreover, there will be a focus on large integrated programmes with a unified approach that challenge sectoral borders and the distinction between basic research and applied research, as well as distinctions between subject areas. Particular priority is given to wide-ranging themes connected with so-called 'grand challenges'. Research funding will be more of the nature of risk financing and will be based on trust in order to promote radical solutions.

47. Network organization and new platforms for international cooperation will be more important for academic performance and for strategic positioning. This is partly because research challenges cannot be solved at the individual institution. Top expertise must often be gathered from several environments in order to solve problems together. The costs of equipment within an increasing number of fields of study are so large that several research institutions and financial investors are obliged to join forces. Moreover, many fields are so small at their own institution that network collaboration is necessary to achieve a critical mass. In addition, more and more networks are being established where research environments, sector administration and the business sector collaborate on resolving specific issues and societal challenges. The EU and other funding parties support this development by requiring active cooperation with many partners. Networks and partnerships have become the currency and admission ticket. Furthermore, competition between universities on funding, talent, prestige and political influence contributes to them forming strategic alliances with other reputable institutions.

48. The **instrumental approach** to universities is being strengthened. Elements of commercialization and market mechanisms are becoming more apparent. A more instrumental approach to universities can be seen in several areas – particularly through the demands imposed on resource allocation, resource utilization and documentation of results. Constraints on public expenditure – in combination with the resources required by universities to enable them to assert themselves in global competition and with rising cost levels – means that universities must generate income from many sources and must compete in the marketplace. The universities' ability to acquire a wider scope of action for their own long-term priorities, to legitimate their use of resources and to document their contribution to society at large will be decisive, and will determine whether they emerge weaker or stronger from this.

49. Universities' **autonomy vs. responsibility for resources and results**: Government deregulation of the state higher education sector has been evident during the past ten years in most European countries – including Norway. Greater institutional autonomy is viewed as necessary for diversity/differentiation among the institutions and for greater overall flexibility. Universities are expected to be clearer about their own role and more capable of administrating their distinctive character in the modern knowledge society. With this came greater freedom – to make their own choices and priorities – as well as greater responsibility - for the use of resources and for results - and greater expectations of the institution's strategic abilities.

50. The strategic solution may be to adapt the university's priorities to external priorities (for example at European or national level) in order to strengthen autonomy and the ability to take part in processes where influence is to be exerted on the university's own terms. However, this requires not only competence but also adaptability within the organization.

5. Overarching objective for UiO up to 2020

The University of Oslo shall strengthen its position as an outstanding European research-intensive university and place of learning, with an action-oriented social commitment.

The following general principles will apply for the entire university throughout the strategy period:

- a. A more **quality-focused culture** – both academically and administratively
- b. A more **strategic approach** – from the individual employee to the entire university
- c. Greater **independence** – both academically and as an institution
- d. Better **leadership** – not only within line management but throughout the organization
- e. Fewer **boundaries** – an action-oriented social commitment and internationalization as constant principles
- f. More **scope for opportunities** – all resources viewed in an overall perspective

6. Main goals

51. The main goals outlined here are features of an outstanding European research-intensive university and are in line with the global trends mentioned earlier and the current status of UiO. The university should aim to be:

6.1. A quality-conscious university

52. **UiO's activities and its entire organization are characterized by an uncompromising search for quality. We must build a university with great diversity, where free research is allowed full play and where there is a good balance between top specialist environments and academic breadth.**

This means that:

- a. UiO continuously strengthens the quality of education and research and the interaction between education and research
- b. UiO defines clear criteria for the quality of education and research: success and outstanding quality are monitored, as well as activities that fall short of the required standard
- c. UiO offers organized research training that attracts the very best international research recruits, with flagship research training institutions
- d. UiO has good practices for balancing long-term in-depth studies and academic renewal, with curiosity-driven basic research of high quality holding a prominent place
- e. UiO gains an increasingly high position in recognized international rankings, achieving this as a result rather than as a goal
- f. UiO systematically uses both externally-funded projects awarded in national and international competitive arenas and peer-based reviews to enhance the quality of its activities
- g. UiO's administration for its research, courses and operations is well integrated with academic activity and characterized by effective collaboration between units and levels
- h. UiO offers a working environment, a learning milieu and an infrastructure that match those at the best international universities

6.2. A groundbreaking university

53. **UiO challenges disciplinary boundaries, cooperates actively with leading international universities and research environments, and is sought after as a contributor to the global knowledge pool.**

This means that:

- a. research at UiO challenges disciplinary, theoretical and methodological boundaries
- b. UiO's researchers and research groups are attractive international partners
- c. The global perspective characterizes UiO's entire organization, and global challenges inspire UiO's academic and thematic priorities
- d. UiO competes actively and internationally for the best researchers and the best students
- e. UiO's courses of education are internationally recognized and competitive
- f. UiO assumes a stronger role in the European knowledge region
- g. UiO strengthens its cooperation with established as well as emerging knowledge nations in other parts of the world
- h. UiO fulfils its joint responsibilities through good academic cooperation with partners in developing countries

- UiO enters into strategic alliances and partnerships in research areas where the university has a strong position. Research collaboration shall also be a starting point for educational cooperation
- UiO has a broad project portfolio that is not dependent on short-term benefit

6.3. A learning-oriented university

54. UiO is acknowledged as a wholly-integrated learning arena providing education that is internationally attractive, quality-focused, ambitious and research-led. It will cater for lifelong learning and will focus as an educational institution on academic and administrative innovation.

This means that:

- UiO attracts motivated and qualified students
- UiO shall inspire students by exposing them to, and involving them in active research environments. The content of their education shall reflect the latest research results and include contact with teachers also active in research
- Study programmes will give students a sound academic foundation that can open a wide range of career opportunities
- Study programmes inspire critical reflection, ethical awareness and social empowerment, and contribute to personal growth and maturity
- UiO develops and refines its study options on the basis of research quality, educational quality and relevance to society at large. Its strongest research areas contribute in particular to educational programmes
- students encounter different forms of learning adapted to the desired outcome, including modern learning resources and learning environments
- students contribute actively to the development of study programmes and their own learning strategies
- UiO has an active programme for lifelong learning, offering research-based continuing education
- UiO is a learning organization both in its internal processes and in the international arena

6.4. An engaged, open university that contributes to the development of society

55. UiO is an outreach institution. Through active dialogue with society at large it ensures that research-based knowledge is used to solve the huge challenges facing the 21st century.

This means that:

- UiO's staff and students bring a critical, analytical, challenging and creative view to the development of society
- UiO is an engaged but independent actor in society, in the broadest sense
- Research, education and social responsibility are closely interlinked
- UiO educates graduates who are attractive in the national and global labour market
- UiO's research environments, museums and collections conduct effective knowledge transfer through networks, mobility and cooperation with private and public enterprises – for example the South East Regional Health Authority
- UiO is a leader in innovation and knowledge transfer in cooperation with private and public enterprises, both locally and globally

- g. UiO promotes the development of research and education policies nationally and internationally
- h. UiO embraces and applies new forms of communication, digital media and IT tools for research, teaching and dissemination. The library services are of high standard. Research results are available to the general public
- i. UiO is an active contributor to innovation, including through Birkeland Innovation, the UiO technology transfer office

6.5. An action-oriented university

56. In order to promote continuous academic development, UiO actively manages its resources and considers its employees, its entire infrastructure and all its funds – both external and internal – as parts of a whole.

This means that:

- a. UiO's governance and financial scope allow quality enhancement and academic development, both across and within subjects and disciplines
- b. External funding is an integral part of UiO's resources and is used as an instrument for academic development, quality assurance and the distribution of resources
- c. UiO ensures that the strategic administration and distribution of its collective resources is conducted in line with changing academic priorities (see the document entitled "Quality and Relevance")
- d. UiO has good practices for managing academic activities that have a time limit, are conducted across faculties, or both
- e. Degrees and programmes of study are of the correct scope and size in relation to academic priorities and financial frameworks in order to assure their quality
- f. UiO has a professional and efficient administration and support functions

6.6. The epitome of a good university

57. In order to realize the potential of each student and employee, UiO closely follows up all employees and students and emphasises the contribution made by both human and material resources to the knowledge production.

This means that:

- a. employees feel that UiO appreciates their skills and motivation, and creates appropriate conditions for high performance in the fields of research, teaching, dissemination, leadership and administration regardless of gender, functional ability, sexual orientation, ethnicity, religious orientation and socio-political background
- b. decisions on scientific development are taken by the researchers and the research groups and are based on clear criteria and international/external peer review
- c. clear criteria are in place for assessing the competence required in different posts and at different stages of a career – both professional, pedagogical, organizational and administrative, as well as communication and leadership skills
- d. UiO's employees have good understanding of and good skills in institutional matters. The organization has clear leadership based on participation and democracy and on good collaboration across units. UiO is viewed as one university
- e. UiO takes measures to facilitate mobility between subjects, sectors and countries

- f. UiO has a unified perspective on the learning environment that includes pedagogical matters, physical and social conditions, universal structures and good welfare services
- g. UiO maintains a high and consistent standard in its HES work
- h. UiO has a well-established HR policy that makes it possible for employees in all positions and all phases of life to enhance their competence, preserve their health and satisfaction at the workplace, and balance their working and family life
- i. UiO shall promote gender equality and diversity
- j. UiO has a well-functioning, up-to-date and sustainable infrastructure and professional support for research

7. Principal challenges

58. On the basis of the proposed main goals, a realistic assessment of UiO's current situation, and what the university *itself* can take action on, we can now ask: Where are our greatest challenges for the next few years?

59. While our main goals are expected to remain fixed during the ten-year period, the challenges described below will hopefully be also need a capacity to adapt. Milestones will therefore be set during the ten-year period at which progress will be evaluated and the list of challenges revised.

60. The following sections is intended to: a) identify the gap between the current situation and the desired situation, b) draw attention to critical success factors, and c) elicit a realistic response from UiO.

7.1. UiO shall strengthen the focus on quality

- a. Appropriate management of human resources is essential for achieving quality in a knowledge organization. UiO will therefore improve its measures to ensure that each employee has the opportunity to develop his/her potential, through a focus on quality in career planning, organization and collaboration
- b. There is too little awareness of what quality actually is and how it can be strengthened. Reactions to success and outstanding results, as well as to activities that pose quality challenges, are not sufficiently strong
- c. A greater part of UiO's academic activity shall be at a high international level
- d. The evaluation of academic activities shall be conducted on the basis of clear and predictable criteria and on assessment processes that are well grounded in UiO's management at all levels
- e. UiO's ability to maintain substantial academic range depends on clear quality criteria being defined and established
- f. UiO can do more to exploit synergy between external and UiO-financed projects as an instrument to enhance quality
- g. The quality culture must increasingly pervade the *entire* organization, including study programmes, dialogue with society at large, the administration, the meeting culture, operations, Human relations, buildings, technology, the learning environment and other infrastructure

61. Academic quality at UiO today is uneven. Cultural differences, often subject-specific, are evident in attitudes to the evaluation of quality and production. There may be good grounds for this, but quality consciousness at UiO generally must increase. This will enable strong groups to continue their development, while those with quality challenges are helped to improve. UiO's overarching objective is to be an outstanding European research-intensive university, and achieving this depends on UiO measuring its activities against international academic benchmarks. A comprehensive focus on quality must therefore pervade the *entire* university, including the interaction between levels, disciplines and professions. This represents an overall challenge at UiO.

62. There is too little awareness of what quality actually is and how it can be strengthened. Reactions to success and excellence, as well as to activities that do not reach the required standard, are not sufficiently clear

63. UiO is already a quality assessing institution, but there is room for improvement. Its activities should be evaluated in a more systematic, predictable and appropriate manner and assessments must

be followed up. The existing academic evaluations – public defences of doctoral dissertations, appointments to university posts, assessments and peer reviews – must be supplemented where necessary and placed in a system which allows them to support academic development, specialist concentration and collaboration as well as international visibility within peer relationships. All units (or faculties) should regularly rate themselves against corresponding entities abroad. UiO will conduct – or ensure the conduct of – a peer review of all areas of its research activity, as well as an evaluation of UiO as an organization.

64. There can be conflict between the goal of achieving quality of a high international standard and obstacles that prevent an effective response to activities that fall short of this standard. Such conflict must be recognized and assessed in each individual case before the requirement for quality can be waived.

65. UiO has established a quality assurance system for its educational programmes that aims to reveal quality deficiencies. Annual quality reports allow good examples to be identified, but the challenge lies in spreading best practice and implementing more thorough systematic efforts.

66. The professionalization of support functions also requires career development and a better system for monitoring employees in technical-administrative positions. More complex and demanding processes for job applications, project development and reporting also demand a combination of technical and administrative expertise. The need for dual competence is increasing, and a better system is needed for mobility and for combining technical and administrative work experience.

67. Academic priority processes are underused

68. The process of setting academic priorities and the “Quality and Relevance” document have provided a sound basis for a set of quality criteria that can be further developed in future prioritization processes. Academic priorities have not so far been incorporated as a continuous process. The way this is to be done will vary to some extent across subjects and units, as will the consequences such priorities entail for both economic and organizational matters. The decisive issue is that such priority processes should form a natural part of all leadership functions at UiO. In the relationship *between* quality and relevance at a research-intensive university, the relevance concept should largely be linked to society’s knowledge needs in areas where individual academic environments at UiO can contribute at the forefront of research.

69. A strategy for greater quality must also take account of the differences between subjects. This applies not only to the “natural size” of a research group or project, where CERN is the most extreme example of “Big Science”, but also to how priorities are set and the extent of mutual dependence between researchers within a subject.¹⁵ Some subjects are intrinsically more nationally-oriented – for example Law. Internationalization and a global strategy for research and education also allow studies of areas such as minority languages, local culture and ‘narrow and local’ research topics. On the other hand, an acceptance of diversity must not become an excuse for condoning lower standards – for instance in expectations about quality and relevance in a research environment.

70. Ability to take risks

71. A university is responsible for developing competence across a broad spectrum. Society needs the university to have research and teaching activities in fields beyond a unit’s core areas, that may not fit in with any particular overall strategy. Completely new ideas and research issues must be

¹⁵ Richard Whitley gives a thorough discussion of the differences between the various disciplines in “The intellectual and social organization of the sciences” (1984, 2000), Oxford University Press.

accommodated, and some financial resources must be devoted to this. Patience and a certain degree of risk-taking are a necessary part of knowledge production in modern society. This is important in the light of universities' role as an arena for science as culture. It also reflects an increasing awareness of their responsibility for allowing scope for this type of research ("blue skies research") since it is regarded as crucial for innovation and creativity. Several subjects and projects at UiO will claim that they play this role, and they will be encouraged to continue. However, units must become more conscious of which projects are in this category and must hold such projects to the same high quality requirements.

72. UiO should place itself higher in the global rankings

73. While the system for ranking world universities has significant methodological problems, and is relatively recent, UiO can improve its position in the global rankings. Despite scepticism, it is likely that rankings will become more important and will acquire higher quality and relevance in the years ahead. UiO must keep abreast of this development and must exploit the opportunities for constructive comparisons inherent in the various systems. For instance, UiO's researchers have an unexploited potential with regard to publications, citations, doctoral degrees, allocations from the Research Council of Norway and the EU, and the proportion of foreign students and researchers. But the quality of the indicators made available to the ranking institutes needs improvement, through an active contribution to the international fora where ranking methods are elaborated. However, these global rankings should not become a goal in themselves, but rather an expression of UiO's quality improvements.

74. UiO shall use external projects to assure quality and further develop its activities

75. Processes with peer review through applying for grants for research funds are invaluable for assessing the quality of UiO's activities. There should be greater awareness of the academic 'added value' for externally-funded projects. These processes and projects, used in the right way, create fruitful dynamics in the research groups, both improving our ambitions and increasing the quality of all other research conducted at UiO. However, a condition here is that the externally-funded activity correlates with the academic priorities of the individual unit.

76. The quality culture shall pervade the entire organization

77. The development of a comprehensive quality culture requires a stronger focus on how operations, support functions and infrastructure interact with academic activity. Everyone at UiO contributes to the global knowledge pool. This involves pride in one's work and a search for quality in *all parts* of the organization, as well as awareness of an overall perspective and a focus on 'doing what is right' as distinct from 'doing things in the right way'.

78. In research, moreover, each employee, research leader, research group and unit, as well as the university as an institution, is responsible for ensuring that research is conducted in accordance with laws and regulations, good research practice and recognized scientific and ethical principles.

7.2. UiO shall cooperate more with the most attractive environments, and shall compete more strongly for the best researchers and students

- a. Many researchers, research groups and units at UiO, should integrate more closely in international research collaborations and academic networks
- b. UiO should improve its efforts to develop internationally strong research areas across disciplines, units and subject areas

- c. UiO has not taken adequate action to meet the consequences of the emerging global labour market for researchers
- d. UiO is neither sufficiently visible in international academic environments nor adequately represented in the strategic networks that generate good recruitment possibilities
- e. Several of the programmes of study should be designed to attract international students: the international dimension in educational programmes can be strengthened, but UiO does not have a strategy for this
- f. UiO should direct its focus towards recruiting the best and most motivated Norwegian students
- g. UiO can become far more competent at facilitating practical aspects for foreign employees and students

79. Attracting and retaining the best researchers and students is a crucial factor for success. The most important element in promoting UiO's attractiveness as a workplace and place of learning is the visibility and appeal of its academic environments. Other factors include the working and learning environments, pay and working conditions, welfare services and career opportunities, as well as a good variation among employees with regard to place of origin, gender, age etc. Practical aspects – both at the workplace and in other parts of life (the city, housing, family, schools) – also play a role.

80. More of UiO's researchers, students and units shall take part in international research collaborations and academic networks

81. Active and genuine international cooperation shall be a natural part of the everyday life of all UiO researchers and students. Good academic contributions made by UiO's researchers to the forefront of international research constitute the most significant instrument for achieving this. It is also important that researchers and each individual unit make themselves and UiO more visible globally. UiO shall participate more actively in academic and specialized strategic forums where ideas and networks are developed. This, together with greater international recruitment and funding, will strengthen both the quality of and the ability to cooperate within research groups at UiO.

82. UiO shall strengthen global cooperation at the interface between subject areas

83. A considerable amount of future global research collaboration will be characterized by increased cooperation between different research areas. Much of the potential for academic innovation lies at the interfaces between the humanities/social subjects and the sciences/natural sciences – for example, growth within the Life Science area is based on new combinations of subjects, topics and technology. The large societal challenges, including climate and energy, require global research collaboration across a number of subjects, and it is here that universities have a unique edge – particularly universities with academic breadth such as UiO.

84. UiO shall take care of its excellent competence, -and develop new

85. In recent years UiO has acquired several Centres for Excellence, both within and between the established discipline and department boundaries. Better mechanisms for handling such temporary efforts will be established, particularly with regard to nurturing the best competence while at the same time creating dynamic space and opportunities for developing new. This includes ensuring that there is a clearer connection between established units and new initiatives.

86. UiO shall have a unified policy for international recruitment

87. UiO's departments and faculties should direct considerably more attention towards international recruitment. In order to exploit both the potential that lies in the emerging global labour

market for researchers and the greater competition for the best students, UiO needs to build competence in the area and to allocate the necessary resources.

88. Mobility – both into and out of the university – is important for the achievement of UiO’s overarching objective of strengthening its position as an internationally-recognized research-intensive university. The academic environments need to further develop a clearer approach to recruitment through active searches in international specialist environments and through recruitment at conferences and in international networks.

89. To support these efforts UiO needs to build and disseminate knowledge of international recruitment procedures, based on appropriate experience and good practice in the units that already recruit internationally. This also requires building better knowledge of how job advertisements and appointments should be performed to attract applications from good international candidates and of how the distinctive features of the city of Oslo and UiO’s academic strengths and working conditions should be exploited.

90. UiO’s educational programme shall be further internationalized

91. The international dimension of UiO’s educational programmes needs to be strengthened, and UiO needs to attract more international students. The university still offers a considerable number of programmes that do not have an international profile. Internationalization is an instrument for attaining greater quality and relevance in education, for example through content, structure, language and practical organization and through drawing attention to UiO’s programmes.

92. Academic excellence is the most important factor for attracting the best students to UiO. In addition, it is essential that UiO’s educational programmes have a distinct global profile and that the campus has an international atmosphere.

93. With regard to national student recruitment, it is not necessarily the case that UiO’s aim in the next few years will be to admit as large a proportion as before of anticipated new students. A large number of potential students should be seen as an opportunity to recruit the very best and highest motivated.

94. UiO shall improve the practical conditions for international employees and students

95. In the past few years UiO has placed great emphasis on the practical aspects of international recruitment and has thus made considerable progress in this area. However, it is important to continue developing this work in order to ensure the smoothest possible procedures for new employees and students who move to Oslo and UiO. Websites, housing services and spouse/partner follow-up are important in this respect.

7.3. UiO shall integrate education and research more fully and shall raise its educational ambitions

- a. The interaction between research at a high international level and UiO’s educational programmes should be clearly defined
- b. Students’ active participation in research projects shall be increased: the work of students as a resource in research activities should be better exploited
- c. Students should be taught to a greater extent by the best researchers: there should be better follow-up of each individual student
- d. UiO should apply research-based knowledge of learning to a greater extent in its teaching and supervision and in the development of its range of educational programmes

- e. The knowledge base for decisions in the educational area should be better developed
- f. UiO does not have adequate incentives to prioritize educational quality at institutional or individual level, either in the areas of educational leadership or career development
- g. The potential for continuing and further education is substantial but lacks a clear strategy
- h. As a large and complex organization, there is too little organizational learning (best practice) across units at UiO concerning academic and administrative organization and efficient administration

96. Research-led teaching characterizes the educational programmes at a research-intensive university. Internationally-oriented programmes that are developed on the basis of the best research provide academic yield for both researchers and students. The students gain better results and a stronger position in working life, also at the start of a researcher career. In addition, such study programmes create a good reputation that encourages new recruitment. In particular, research-led education ensures that graduates are equipped with solid academic, analytical and critical skills.

97. The educational challenges of a research-intensive university are not defined sufficiently clearly

98. Educational programmes at UiO are increasingly characterized by being part of a global education system. Strengthening the research basis for some of the programmes offered at UiO ensures that the education is embedded in an overall quality system. This particularly applies at master's degree level where the need – and the opportunity – for a closer liaison with research are greatest. There should also be more dynamics in the development of new programmes, based on UiO's strongest research areas.

99. UiO shall enhance the quality of the education – both institutionally and individually

100. The universities we wish to compare ourselves with take a higher degree of institutional and strategic action and governance in the education area than has been traditionally the case at UiO (for example the universities of Lund and Helsinki). These universities place emphasis on educational leadership and pedagogical competence, as well as on support functions for teachers. Clear requirements are set regarding the learning targets that the programmes of study must strive to attain. Employees are involved in and widely concerned with educational issues, and the institutions offer incentives that ensure that endeavours within the education field are awarded career-wise. Considerable efforts are also being made at UiO to boost educational activities, but initiatives across the institution are uneven and no overriding objectives and requirements are being set.

101. UiO shall exploit students' research work more fully

102. One way of integrating research and education is to exploit the research potential among master's degree students more fully. In most subject areas a master's thesis can be linked to a supervisor's current research. This would help to increase the capacity and breadth of the research project, to promote a higher quality of the theses, and to create greater probability of research recruitment from the students.

103. Students shall come into contact with more of the best researchers early in the course of their studies, and shall become involved in research later in the course of their studies

104. To create motivation, involvement and insight it is important that the best researchers take part in the teaching at all levels. In many subjects the best researchers at present largely teach at a higher level, while those in a recruitment position and junior researchers teach at bachelor degree level. There must be a better balance in this area. Furthermore it is essential that students at a higher

level are gradually involved and inspired by the latest developments within the various research areas. This demands a more dynamic organization of the educational programmes than that of today.

7.4. UiO shall be more open, visible and active as a social institution in both national and global arenas

- a. UiO shall be a more active and visible actor in society at large
- b. The interaction between research, education and innovation shall be considerably strengthened
- c. Cooperation with public and private partners shall be strengthened in order to promote new and sustainable value creation
- d. The content and structure of programmes of study shall be more closely connected to innovation in the wide sense
- e. UiO shall participate more actively in the joint global efforts to gather and disseminate knowledge and shall create better conditions for sharing scientific information
- f. UiO shall be at the forefront of new digital media and IT tools with regard to both learning and dissemination

105. UiO is perceived to a far too great extent as a self-sufficient institution whose message on how society can help to resolve the university's challenges is considerably clearer than the message on how UiO can help to resolve society's challenges. This is partly a matter of realities and partly of impressions we can influence ourselves. Nonetheless, UiO will reap substantial benefits by being a more conspicuous actor in society – an actor that is recognized for the responsibility it takes for handling the existing and future challenges facing society.

106. UiO shall be more action-oriented and visible

107. To enable UiO to develop operational and unified goals for its activities, it must clarify its role as a key actor in society. What actually is the social assignment for a university today vis-à-vis political institutions, the business sector, organizations and the general public? What is the university's identity – nationally and globally? What distinguishes a university in a capital city that has ambitions of contributing more to the global knowledge pool from a regional university or a university college? What does the historical inheritance on which UiO as an institution is founded actually mean? What is the balance between on the one hand UiO's responsibility and obligation to Norway and the challenges facing Norwegian society and Norwegian business, and on the other the global challenges facing international society? These are not necessarily contradictions for a university, but rather encouragement towards creative work sharing, cooperation and competition in a global knowledge sector.

108. UiO shall be a better dialogue partner with its owners and its major cooperative partners

109. As the country's largest place of learning, UiO should exert some influence on the national framework conditions for the operation and administration of an internationally-oriented university in Norway. UiO's conduct should be clearer and more strategic towards its owners, the Research Council of Norway and other players – for example the South East Regional Health Authority. This is dependent on raising the awareness of what a (Norwegian capital city) university shall and should be, and on strengthening UiO's profile. In addition, the more UiO asserts itself internationally, the more clearly and effectively it can play its role nationally. The goal must be for UiO to become more of a strategic co-player and partner with national (and European) authorities.

110. UiO's identity shall be strengthened

111. A stronger profiling of UiO is required, both nationally and internationally, and a reinforcement of the feeling among students and employees of belonging to the institution. It is important to inspire pride and to encourage contributions to the forming of UiO's identity. This applies particularly when UiO's staff take part in public debate on issues of academic or research policy, where reference to UiO is currently often incomplete or omitted.

112. UiO shall exploit the potential for contributing to creativity and innovation in society

113. Awareness needs to be raised of the connection between research, education and innovation (the knowledge triangle). We should use a broader innovation concept that encompasses innovation, creativity and benefit in a close interaction between UiO's academic environments and the business sector, public partners, government administration and the general public. In other words, innovation should be about learning, creativity and change in a broad sense rather than merely associated with putting an invention to use or developing it into a product. UiO should therefore review its various policy instruments with the aim of achieving returns on innovation to enable innovation (broadly conceived) to be integrated into UiO's ongoing activities. At the same time it is important for UiO to continue its work on entrepreneurship and the commercialization of research results.

114. UiO shall enhance its cooperation with public and private enterprises in order to contribute to new knowledge and sustainable value creation

115. UiO should make more use of the knowledge, experience and competence of its surroundings for its education and research. There is a weak tradition for fruitful academic cooperation and interaction with business and industry and with the research environments of the institute sector. UiO is not sufficiently aware of the assets possessed by the region and how these can be utilized strategically. UiO has an interest in entering into a closer interaction with public and private enterprises in areas where this can contribute to its research and education. In addition, UiO should develop cooperative agreements with strategic partners in society – including in the development of its educational programmes.

116. UiO shall share more of its knowledge

117. UiO must increase its participation in the joint global efforts to develop and share mutual knowledge. The university should have a unified approach to digital content, characterized by openness, transparency and a culture of sharing, and should have solutions and regulations that promote this. Sharing is a productive attitude to innovation and knowledge development. It is in line with the academic spirit and forms part of our social assignment as a "knowledge bank". The work of preserving UiO's scientific publications and rendering them visible in open, institutional archives and Open Access publicizing should therefore be assigned priority. UiO's own website should also be better utilized for the dissemination of knowledge production.

118. UiO shall exploit the returns and opportunities inherent in the use of new electronic forms of communication

119. ICT provides the university with new opportunities for dissemination, new forms of expression, new forums and new channels for reaching and for involving and engaging its target groups in research-based insight and reflection. In ways that were completely unknown just a few years ago, the Internet, net-based multimedia, mobile solutions and social software provide possibilities for fulfilling our social assignment. This is also an area where the pace of development is very rapid. UiO should have ambitions of participating actively in some parts of this field.

120. Moreover, the Internet will increasingly become a more important arena for the recruitment of students and employees, for communication and information and for research dissemination, and as a work tool for researchers, administrative staff and students. The net must be further developed as an online meeting place for the university's extensive activities.

7.5. UiO shall expand its financial scope through a more strategic utilization of its collective resources

- a. UiO needs financial scope and good governance to further develop its role as a research-intensive university
- b. UiO's framework conditions should be improved: at present there is a disparity between expectations and resource allocation
- c. UiO should strengthen its ability to distribute resources according to academic merit
- d. UiO should exploit the scope for action inherent in natural mobility and in the fact that many employees will retire during the ten-year period
- e. UiO should attempt to acquire more and better external funding, particularly for large-scale projects, and should view externally- and internally-funded research in a more overall perspective
- f. UiO should strengthen and better coordinate its administrative competence for the acquisition and administration of external funding
- g. UiO lacks good mechanisms for time-limited initiatives, particularly with regard to preserving the expertise gained from these initiatives while at the same time creating dynamism and the scope to develop new
- h. UiO has a weak tradition for cooperating on long-term research with the business sector and philanthropists, and is not sufficiently proactive regarding future funding sources
- i. UiO must ensure that good and efficient administration is in place

121. UiO is often, and increasingly insistently, challenged by its owners and stake holders on how the resources are utilized. The economic prospects for the years ahead do not suggest that UiO can expect any substantial improvement in financial framework conditions. If UiO is to succeed in achieving its objective of being an outstanding European research-intensive university, the main emphasis must be placed on increasing external funding. Such funding must be viewed in the light of the university's own funds, and a far better culture must be established for an academically-grounded redistribution of the total resources. In addition, UiO must endeavour to improve the relationship between its goals and the funds that it receives from its owners.

122. Scope for action and capacity for change

123. A university with ambitions must be open to change: new activities must be implemented and old ones discarded. UiO must handle change and reorganization better. During the five-year period from 2006 to 2010, and due to the greater responsibility assigned to it by its owners, UiO has reemployed NOK 500 million of its own resources – corresponding to 3% deduction per year from the total annual budget. This greater responsibility concerns UiO's own contribution to external projects, full financing of PhD positions, insufficient compensation for increased salary costs, and higher demands – particularly regarding building maintenance. To a large extent this reorganization has been covered by making cuts in the short term where the budget allows (teaching, operational funds for research and the discontinuation of positions that become vacant). Major questions will therefore be: how does UiO wish to handle this type of reorganization in the future? What extent of reorganization is it reasonable to expect UiO to undergo in order to cope with the greater responsibility and tasks

defined by its owners? What extent of reorganization should we undergo to allow scope for internal priorities?

124. External funding shall be used more strategically in order to enhance quality and create greater scope for action

125. Lack of financial scope for action is connected to three factors: a) basic funding, b) external funding, and c) the ability to administrate the strategic relationship between those two factors. There is a major potential for creativity, research quality and contributions to society in *the combination* of the various funding sources. External funding will thus help to make UiO research better and more independent and will in particular provide more scope for action.

126. A starting point is to use external funding more strategically, both internally and externally. The awareness of the relationship between academic and financial 'added value' for externally-funded projects should be raised.

127. It is also vital to secure the best possible funding for each individual project so that the unit's overall economy is sustainable. For example, UiO employees' time should to a larger extent be financed by external funding sources, even though this may lead to a project being smaller or more expensive. UiO must win the competition for external funds on grounds of merit rather than on grounds of cheapness. This will require a more united culture where project managers view their project to a greater extent as part of a whole.

128. UiO shall focus on the connection between academic strategy and resource management

129. A stronger connection between academic strategy and resource management affects how the university is governed and led at all levels. of this kind requires UiO to change its form of management. It entails ensuring that academic strategy work becomes a natural part of leadership at all levels, and that units' and research groups' development opportunities are linked to commitment, ability and success in combining available resources. This applies to both externally- and internally-funded projects, and not least to exploiting the scope for action provided by natural mobility and by employees leaving on reaching retirement age.¹⁶ Defining the strong points, potential and level of ambition of each unit is a leadership responsibility, as is making choices on the basis of the result. Building strong and viable academic environments with the help of the combination of internal and external financing also requires project planning to be moved from individual researcher level to unit level, and researchers working across disciplines to either join forces to develop new ideas or to individually create good groups within the particular department or unit. The task of the management will therefore be to offer inspiration and to create conditions for appropriate and open processes and for a professional administrative network that can assist with strategy development, application processing and practical project administration in order to ease researchers' workload.

130. UiO shall work to improve the correlation between expectations and allocations from its owners

131. As the country's largest place of learning, UiO should exert some influence on the national framework conditions for the operation and administration of an internationally-oriented university in Norway. UiO's basic funding from the Ministry of Education and Research reveals a growing gap between the authorities' and UiO's perception of the opportunities for action. This is caused by the fact that the funds that are allocated are increasingly bound by political directives while at the same

¹⁶ In 2008 UiO had staff aged 60 or more in academic positions corresponding to approximately 450 man-labour years (figures from DBH – the database for statistics on higher education).

time the authorities regard the universities as institutions that are vital for the creation of the emerging knowledge society and for resolving the main challenges of the future.

132. UiO shall be active as soon as the terms for external initiatives and programmes are set, and shall develop a better dialogue with several potential sources of funding

133. Many of the terms for applying for external projects are set in the planning phase of national or European announcements. UiO's researchers shall contribute more and better input to forthcoming programmes and announcements. This is particularly important to improve the correlation between UiO's strong points and the scientific orientation of the external funds.

134. UiO shall also strengthen the work of acquiring sponsorship, gifts and donations, and shall develop closer contact with the business sector and its former students.

135. UiO's administration is not efficient enough

136. UiO has considerable administrative resources. Compared with NTNU and the University of Bergen, UiO has approximately the same administrative resources, both centrally and for the faculties, but the resources at department level are substantially larger. However, there are few adequate procedures and support tools to ensure that these resources are utilized in a sufficiently good and uniform manner. Efficient administration also encompasses the administrative activities conducted by academic staff.

7.6. UiO shall establish a unified programme for the contribution of human and material resources to the production of knowledge

- a. Increased and improved leadership
- b. Participation, interaction and networks
- c. An HR strategy based on trust and a quality culture, in line with the principles of the European Charter and Code:
 - i. Active recruitment that supports the adopted academic priorities
 - ii. Professional and career development for all groups of employees and in all phases of life
- d. Professionalization and development of application procedures and project handling
- e. More and improved investment in the refurbishment and upgrading of buildings, the working and learning environments and infrastructure
- f. Better utilization of ICT in the organization
- g. Integration of the environmental perspective, both in daily operations and in the academic sphere

137. Currently UiO does not have a staff HR policy that takes into account the distinctive features of the academic community as an organizational form and that unites both personnel policy and academic development. UiO thus does not have a strategy for knowledge production. The university must successfully combine the role of a responsible employer subject to Norwegian law and regulations with that of an effective facilitator for professional development. This requires an appropriate follow-up of employees whose work involves several challenging and simultaneous roles: researcher, lecturer, disseminator of information, leader and administrator.

138. More and improved leadership

139. UiO needs more and better leadership. First and foremost the line manager role requires further development. This is a considerable challenge in several units, where some leaders have direct

responsibility for up to 200 staff. However, it is equally important to enhance the competence and awareness of leadership in research groups and cross-disciplinary networks. Developing appropriate leadership skills will be a critical factor in several environments; the programmes for heads of departments and research leaders constitute a good and necessary start. With regard to the courses of study, clear and more systematic educational leadership is needed as a prerequisite for developing the programme portfolio and the quality of the educational provisions.

140. Academic leadership is often categorized as “administration”, and the comprehensive tasks in academic development, organization and management are not adequately highlighted. The establishment of an academic environment, and the growth and change within it, are therefore often random and form only a small part of an overall strategy. In order to raise a substantial part of the activity to an international level we are dependent on creativity, motivation and enthusiasm from each individual researcher and research group.

141. To a greater extent than other places of learning, a university should be able to ‘take chances’ on good ideas, gifted researchers or promising projects. In addition it is crucial – both for society’s ability to be creative and for democracy – to allow room for alternative voices at a university. However, operational and subject-specific quality criteria must be established and incorporated to make it possible to identify the areas in which progress is being made and those in which a decline is taking place. Greater focus on quality demands better leadership at *all* levels at UiO, both academic and administrative, in particular to establish a fruitful interaction between major initiatives at unit and research group levels and across levels of governance.

142. Participation, interaction and networks

143. To enable an institution’s joint goals and priorities to become a reality, its entire staff must have a high level of organizational competence – a considerable challenge in so complex an organization as a university. Loyalty to decisions requires knowledge of when and how these can be influenced, as well as good channels and processes for participation, clear leadership and follow-up. Better clarification of roles, responsibilities and authority, and the increased utilization of networks across the organization can promote greater commitment to following common goals and a feeling of pride in joint results.

144. An HR strategy based on trust and a quality culture, in line with the principles of the European Charter and Code

145. An HR strategy for university staff must draw on the distinctive features of an academic community as an organizational form, i.e. the key role of peer reviews. UiO has joined the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers, which contains a number of principles for good practice and role clarification in higher education institutions. Academic freedom, ethics, mobility and the prevention of discrimination are among these. The EU encourages universities to draw up specific plans for how the principles laid down in these documents are to be implemented. It is recommended that a two-year HR strategy is initially compiled based on an analysis in which appropriately applicable regulations and practice meet the requirements given in the Charter and Code. The work will form part of the overriding strategy process but will conclude with a two-year HR strategy for UiO.

146. Active recruitment that supports the adopted academic priorities

147. An important area in the Charter and Code is recruitment. At UiO, recruitment to academic posts is not sufficiently active – either for attaining internationalization or for dimensioning organized research training and continuing the development of the expertise required in the future at both UiO and in society at large. Recruitment must also reflect the academic priorities adopted. Recruitment to

all positions at UiO creates the basis for the future enhancement of the university's standing by attracting highly-qualified applicants. Organizing good appointment processes also requires appropriate regulations and procedures as well as measures to ensure further efforts to focus on the gender and diversity perspectives of recruitment.

148. Professional and career development

149. Another major topic in the Charter and Code is to ensure that researchers of both sexes, in different phases of life and with different backgrounds, are able to carry out their tasks in the best possible manner. UiO has a particular challenge with regard to the gender balance in top academic positions.

150. Permanent academic staff: To enable UiO to achieve its overarching objective we need to give all UiO employees the opportunity to realize their potential – regardless of whether they work in research, teaching, dissemination or administrative and support functions. A more systematic follow-up of the academic staff's efforts and results will ensure better recognition of good performance and will identify the need for follow-up measures.

151. Temporary academic staff: The large number of temporary staff – in recruitment positions and in positions associated with externally-financed projects – entails a particular follow-up responsibility for groups who perceive their unstable employment conditions as a strain. Initially a special effort is required for postdoctoral fellows and temporarily-employed researchers. This group must have a greater predictability in their career path, and UiO will support the work to develop a tenure track system. However, the institution and the academic environments must also make it clear that it will not be possible for many temporary employees to be given permanent positions – not only because access to such positions is limited, but also because mobility is important for academic development. However, this group must be offered initiatives that can strengthen and assure the quality of their continued professional development in relation to both academic research activities at other national and international institutions and to activities in other sectors (innovation and the business sector, government administration and knowledge dissemination), thus equipping them for a future career.

152. Technical and administrative staff: The requirements set by the university's goals and activities for this group of staff in the way of greater professionalization means that there is a considerable need for competence building and attractive career paths to enable UiO to recruit, develop and retain skilled administrative employees. The potential provided by greater mobility between academic and administrative careers should also be investigated. As is the case for academic staff, there should be a greater predictability in the career path towards permanent positions.

153. Professionalization and the development of application procedures and project handling

154. Assigning more priority to external funding is conditional on better competence and capacity in research administration. The ambition of achieving outstanding research requires an active and strategic research administration and a close cooperation between research and administration. To reap the benefits of externally-funded projects and to prevent project managers and research leaders spending unnecessary time on the administration of applications and on project follow-up, UiO's research administration should be made more professional and be better organized. Here too, external and internal resources should be viewed in an overall perspective.

155. A better and more consistent standard of HES work

156. In recent years UiO has experienced censurable incidents and circumstances within the working environment and HES. For a university with UiO's aspirations it is important that the standard

in HES matters is maintained at a high level and that collegial conduct is the rule. HES should be a permanent item on the agenda of formal meetings.

157. A green university

158. UiO shall be an environmentally-sustainable university, which entails the environmental perspective characterizing all its activities. UiO will develop cross-disciplinary cooperation for the environment in research, education and dissemination. In addition, UiO will strengthen its environmental contribution through its operations, procurement, rehabilitation and new investments, and by the certification of the institution's units.

159. A competitive learning environment

160. Studying at a university consists of more than merely acquiring a certain specialized competence. Thus, competing for the best students also concerns the physical and the social learning environments, as well as social skills such as network building, international understanding and competence, cooperation and the learning that takes place in the various student organizations and voluntary associations. UiO's goal should be to facilitate all these forms of learning since they are both beneficial and relevant to the students. They give us a competitive edge – a holistic approach to learning that focuses on the link between subject, teaching methods, ICT and other modern forms of learning. This will help us to recruit competent and motivated students.

161. The action-oriented administration of buildings and infrastructure

162. UiO's buildings represent a challenge. An internal overview reveals that large parts of the university buildings are technically outdated and not very functional. Many of the buildings no longer comply with current laws and regulations – for instance in the HES area – or with new requirements regarding universal design. There is also a need for functional upgrading and adaptation to new activities: research, scientific infrastructure, new forms of teaching, the learning environment and the optimal use of the buildings. In addition there are challenges with regard to preserving both buildings with cultural and historical value and UiO's extensive collections. The costs for this backlog are estimated at more than NOK 5 billion. Furthermore, our ambitions for acquiring a higher number of both good externally-financed projects and students will demand an increase in area. UiO cannot handle this within its own budget and must therefore work systematically and purposefully to find financing in line with its master plan and in close dialogue with the authorities. UiO must also set clear priorities among the large-scale building projects that require allocations from the national budget.

163. A better and more strategic use of an ICT-based infrastructure

164. UiO shall be at the forefront with regard to making use of new electronic forms of communication, digital media and IT tools in all parts of the organization. This applies to primary activities (research and teaching) and as a strategic tool for dialogue, governance and dissemination, both internally and externally. The new communication tools also facilitate greater flexibility in the organization which, along with a common understanding of UiO's main goals and strategy, can pave the way for greater freedom throughout the organization for the university's priorities and policy instruments.