

# **Research and Higher Education in Norway**

## **A presentation of:**

- **The Norwegian Association of Researchers (NAR)**
- **Trade Unions and Employer Organisations in Norway**
- **The Wage Negotiation System in Norway**
- **Norway's Education and Research System**

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# 1. The Norwegian Association of Researchers – Objectives and Strategies

## 1.1 Organisation

The Norwegian Association of Researchers (NAR) has approximately 18 000 members (Jan 2011), making it Norway's largest trade and special interest organisation for employees in research, higher education, museums and cultural heritage work. NAR's main purpose is to improve working conditions in research and higher education and to protect members' financial and professional interests. NAR is affiliated with the Confederation of Unions for Professionals, Norway (Unio), and is a member of Education International<sup>1</sup> and ETUCE<sup>2</sup>.

At the individual workplaces, NAR is represented by local branches. NAR has approximately 260 local branches all together. A local branch is organised at every workplace where NAR has three or more members. Where there are fewer than three members, the members' interests will be attended to by NAR's central staff. The local branches deal with members' interests at their institution and provide assistance to members, in accordance with applicable legislation and agreements.

NAR's supreme governing body is its Congress, which meets once every three years. The Congress is comprised of delegates from all the local branches. The Congress elects the Executive Board that runs NAR in the interims between Congress meetings. The Executive Board consists of a chair, six ordinary members and three deputy members, all of whom are elected for three-year terms of office.

NAR also has an advisory body, the National Council, which meets once a year and is comprised of 45 representatives. The National Council is the highest-level advisory body for major political and strategic issues between Congress meetings.

NAR has 12 Professional Networks that deal with members' professional interest. Members of NAR can choose to also become a member of one of the professional networks:

- NAR, Archivists' Network
- NAR, Museums and Cultural Heritage Network (FMK)
- NAR, Library Network (FBF)
- NAR, Administrative Staff Network (FAP)
- NAR, University College Researcher Network (FFFH)
- NAR, Engineering Education Network (FFI)
- NAR, Teachers' Training Network (FFL)
- NAR, Military Academies Network
- NAR, Dietitians' Network (KEFF)
- NAR, Meteorologists' Network (NMF)
- NAR, Network for Archaeologists on Temporary Contracts (MAARK)
- NAR, Network for Academics at the University of Oslo

In order to become a member of NAR, you must hold a position that would normally require higher education; and you must work in research, higher education, museums, cultural heritage work, or public service related to research and higher education.

NAR's members are often categorised according to whether they work in the state, municipal or private sector. Members not affiliated with any particular sector include students, pensioners and the unemployed.

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<sup>1</sup> Education International is a global union federation representing education personnel, whose 30 million members represent all sectors of education from pre-school to university, 402 national trade unions and associations in 173 countries and territories.

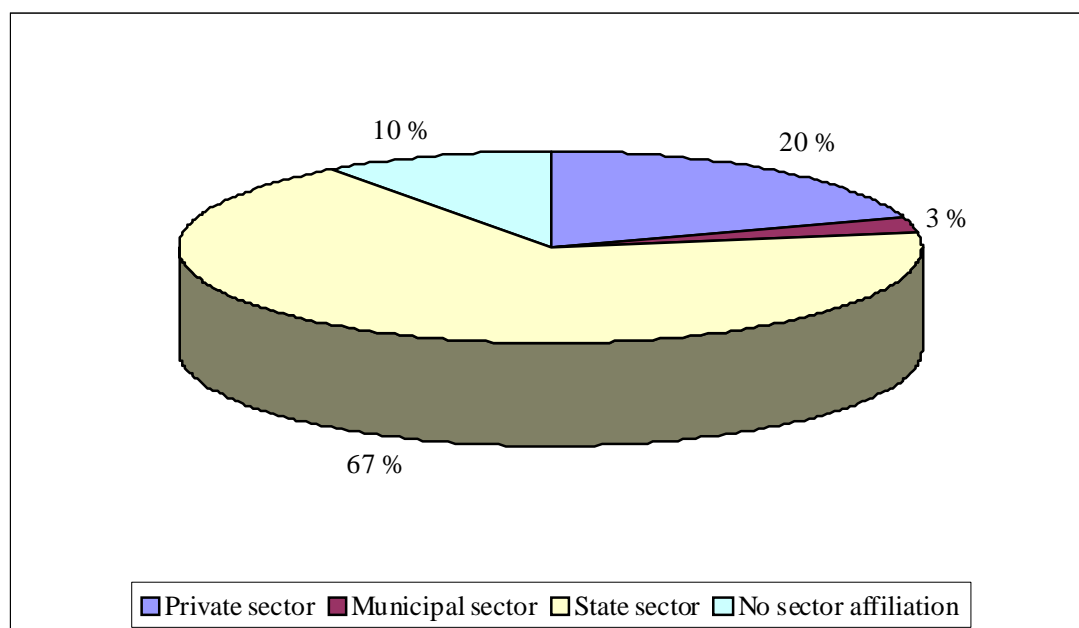
<sup>2</sup> The European Trade Union Committee for Education.

**Figure 1. Membership by Sector, January 2011**

Sector	Members
Private	3.560
Municipal	467
State	11.995
No sector affiliation	1.794
<b>Total</b>	<b>17.816</b>

Members in the state sector generally work at universities, university colleges or state research institutions, or in public service related to research and higher education. Most private sector members work at private research institutions, health enterprises or private university colleges. Members in the municipal sector work for municipalities and counties in Norway, including municipal museums.

**Figure 2. Members by Sector, January 2011 (%)**



## 1.2 Reciprocal Membership Agreements

NAR has made reciprocal membership agreements with our sister organisations in the Nordic countries, Ireland, UK, Canada and USA.

The agreements ensure that members of NAR who work in the above-mentioned countries will be accorded free guest memberships that will entitle them to be consulted about work contracts, wages question and other services provided to ordinary members in the respective countries.

Members of NAR's sister organisations will in turn be entitled to the same rights from NAR when working in Norway.

NAR has agreements with the following organisations:

- Canadian Association of University Teachers (CAUT)
- American Association of University Professors, USA (AAUP)
- University and College Union, UK (UCU)
- Irish Federation of University Teachers (IFUT)
- Swedish Association of University Teachers (SULF)
- Danish Association of Masters and PhDs (DM)
- Finnish Union of University Researchers and Teachers (FUURT)

### 1.3 NAR's Research Policy

NAR strives to ensure that Norwegian research is competitive on the international arena, and supports the parliamentary decision to escalate Norway's total investment in research to three per cent of GDP. Research investments in Norway lag far behind the other Nordic countries measured both as a percentage of GDP and as *per capita* research investment.

Norway faces formidable challenges associated, not least, with health, climate and energy. Investment in research and higher education is an important policy instrument for finding solutions to these challenges, and for promoting future value creation.

Academic staff must be allowed sufficient time for R&D work and have better opportunities for skills development and self-initiated research. It is NAR's opinion that sufficient time for research and development work is the key factor for qualifying for top academic positions, and for contributing to international knowledge development.

#### **NAR's goals for 2010 to 2012 are:**

- Norway should increase its research spending to 3 per cent of GDP by 2014.
- Basic allocations to universities, university colleges, research institutes and the ABM sector should be strengthened.
- The allocation for independent basic research under the auspices of the Research Council should be increased significantly.
- A government fund should be built up to provide an annual yield of at least MNOK 800 for investment in research infrastructure.

### 1.4 NAR's Education Policy

Having equal rights to education is a fundamental principle which must remain a cornerstone of Norway's educational policy. This means the public sector is responsible for funding higher education, for ensuring the necessary equipment for good teaching, and for maintaining a satisfactory system for student grants and loans.

This presupposes that teaching will be research-based, that the forms of evaluation will be adapted to the distinctive character of the various disciplines, and that students will be followed up closely during their studies. It is important to ensure that students have general framework conditions that enable them to study full-time.

The finances of institutions of higher education must be strengthened to prevent cutbacks in the resource-intensive segment of teaching, i.e. where there are smaller groups and assignments are handed in. In this context, it is decisive that student places be fully funded to prevent any further deterioration in the situation.

#### **NAR's goals for 2010 to 2012 are:**

- All teaching in higher education should be research-based.
- Teaching should be concentrated to allow adequate blocks of time for R&D.
- Academic freedom for individuals and institutions should be safeguarded and strengthened.
- Student places and PhD/post-doctoral positions created over the National Budget are to be fully funded.
- Students are to be guaranteed financing that will enable them to study full-time.

## **1.5 NAR's Wage Policy**

NAR will work to ensure that all of our members in research, higher education and the ABM sector are offered competitive wage levels that correspond to those in other sectors of society. Wage levels should reflect members' expertise, responsibilities and efforts. This is a prerequisite if the sector is to recruit and retain the best qualified, motivated and talented young individuals, who will contribute to the increased level of knowledge production on which society depends.

The absence of wage hikes for NAR's members will upset the very foundation for acquiring new knowledge and the quality of higher education, and thus have far-reaching consequences for society-at-large.

Important tasks for NAR are to defend and strengthen employees' rights and to make sure that the research and higher education sector is given sufficient funding for creating good working conditions for the staff.

### **NAR's goals for 2010 to 2012 are:**

- All NAR's member groups are to be ensured a significant rise in real wages. The wage level should be raised considerably and be competitive with comparable positions in society-at-large, enabling the institutions to compete at both the national and international levels when recruiting and retaining the best qualified individuals.
- Wages and working conditions should be good enough to recruit the best qualified and motivated graduates to take up careers in research, and good enough to recruit extremely well-qualified scientists to return to researcher positions.
- The use of temporary positions must be curtailed significantly, and job protection must be strengthened in statutory and regulatory provisions.
- Academic positions are to be combined with the right and obligation to engage in research and development, teaching and dissemination.

## 2. Trade Unions and Employer Organisations in Norway

In Norway, approximately 50 per cent of all employees are members of a trade union. In the public sector (state, municipal and county owned enterprises), 85 per cent of all employees are trade union members. At higher education and research institutions, around 80 per cent of the staff is organised. Trade union density is high in Norway compared to most other countries, although it is lower than in the other Nordic countries which have union densities of between 65 and 80 per cent.<sup>3</sup>

Norwegian trade unions play a significant role in the system of collective bargaining, in wage negotiations, and in defending employees' rights. The trade unions negotiate for individual wage increases for their members in the local wage negotiations at each workplace.

Incomes policy collaboration has long traditions in Norway. Norway's incomes policy has made it possible for the organisations and the authorities to offer a more comprehensive selection of instruments in conjunction with economic policy and social trends than what each individual player would be able to offer on its own. During economic downturns in particular, Norway's incomes policy has played a decisive role by combining growth in real income with low long-term unemployment rates.

### 2.1 Trade Unions in Norway

There are four large confederations of trade unions and associations in Norway.

The **Norwegian Confederation of Trade Unions (LO)**, founded in 1899, is Norway's largest workers organisation, consisting of 21 national unions with a total of about 860 000 members. Each national union covers a specific trade, a branch of business, or a public service sector. The Norwegian Labour Party and the trade union movement organised in LO have common historical roots, and LO still has a close cooperation with Arbeiderpartiet.

The **Confederation of Unions for Professionals, Norway (Unio)** was founded in 2001, and is Norway's second largest confederation. Unio consists of 10 national unions with a total of nearly 300 000 members. Membership is open to organisations for employees with college- or university-level educations. NAR is affiliated to Unio.

As of 2010, Unio's member unions are: the Union of Education, Norway, the Norwegian Nurses' Association, the Norwegian Association of Researchers, the Norwegian Police Federation, the Norwegian Physiotherapist Association, the Norwegian Association of Occupational Therapists, the Norwegian Association of Clergy, the Norwegian Association of University and College Graduates, the Norwegian Association of Deacons and The Norwegian Association of Tax Auditors and Accountants. Unio is a politically independent organisation.

The **Confederation of Vocational Unions (YS)** was established in the 1970s and currently consists of 22 organisations with a total of some 215 000 members. Most of the members work in the public sector (60 per cent), although many members work in the financial services sector. YS is a politically independent organisation.

The **Federation of Norwegian Professional Associations (Akademikerne)** was established in 1997. It currently consists of 13 member organisations and has about 145 000 members. The member organisations organise employees who are university or college graduates. The 15 member associations include, for example, the Norwegian Dental Association, the Norwegian Medical Association, the Norwegian Psychological Association, the Association of Norwegian Lawyers, the Association of Social Scientists and the Norwegian Society of Graduate Technical and Scientific Professionals.

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<sup>3</sup> Fafo-report 2009:33 Labour relations in Norway

## 2.2 Employer Organisations

### 2.2.1 Private Sector

The main representative body for employers in the private sector is **the Confederation of Norwegian Enterprise (NHO)**. NHO has about 20 000 trade, industrial and service enterprises as members, and encompassing approximately 500 000 employees. Private university colleges and research institutions belong to NHO through the **Business association of Norwegian knowledge- and technology based enterprises (Abelia)**.

The other major employer organisation in the private sector is the **Federation of Norwegian Commercial and Service Enterprises (HSH)**, which has about 14 000 member enterprises with a total of roughly 180 000 employees. HSH represents a great diversity of companies and NGOs within the trade, service, education and health sectors. Several museums and private university colleges are members of HSH.

The employer organisation **Spekter** was established in 1993 to meet the needs of semi-autonomous state enterprises. It currently has about 190 member enterprises and encompasses approximately 180 000 employees. About 110 000 work in regional health care enterprises, 37 000 in transport and communications, 10 000 in ICT/media and knowledge enterprises. The rest work in culture, finance, services and other sectors.

In the private sector, roughly 60 per cent of employers belong to an employer organisation, which is roughly the same as in the other Nordic and European countries<sup>4</sup>.

### 2.2.2 Public Sector

In the state sector (state administration) the government is the formal employer, and the **Ministry of Government Administration, Reform and Church Affairs (FAD)** acts as employer on behalf of the government. Today the state sector has approximately 130.000 employees. The number has been reduced significantly during the last 15-20 years, due to reforms where many employees have been transferred to autonomous state-owned enterprises and due to local authorities (KS) taking over responsibility for bargaining with primary and secondary school teachers.

**The Norwegian Association of Local and Regional Authorities (KS)** is the employers' association and interest organisation for the local public sector: municipalities, counties and local public enterprises in Norway. KS is the employer for all those who work in public primary, lower secondary and upper secondary schools. KS' corporate members also include electricity boards, common carriers, day care centres, fire and rescue corps, health and welfare institutions, and water, sewer and waste management companies. KS negotiates on behalf of 950 employers with a total of 400.000 employees.

**The Municipality of Oslo** is a member of KS, but bargains on its own and has its own collective agreements.

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<sup>4</sup> NOU 2010:1 "Medvirkning og medbestemmelse i arbeidslivet"



### **3. The Wage Negotiation System in Norway**

NAR negotiates to obtain better salaries and working conditions for its members, and is entitled to negotiate on behalf of members in state, municipal/county and private enterprises and organisations.

Negotiations at the central (national) level are, for the most part, conducted through the Confederation of Unions for Professionals (Unio). At the local level, NAR's local branches negotiate with the local employers.

There is no statutory minimum wage in Norway, but wage agreements will normally contain pay minima.

Wage negotiations are conducted separately for the various sectors (state, municipal and private sector).

#### **3.1 The State Sector**

##### **3.1.1 Main Wage Settlements**

The main confederations, i.e. LO-State, YS-State, Unio and Akademikerne, negotiate with the state, as represented by the Ministry of Government Administration, Reform and Church Affairs (FAD). The state's collective bargaining system is governed by a special act<sup>5</sup>.

Negotiations are held on annual wage adjustments in the state sector, and on the content of the *Basic Collective Agreement for the Civil Service* ("Hovedtariffavtalen"). Unio negotiates on behalf of NAR in these main settlements.

##### **3.1.2 Central Collective Bargaining**

The main wage settlements are conducted every two year (in years that end in even numbers). In these settlements, the parties negotiate revisions of the entire basic collective agreement in addition to negotiating wages. Wage renegotiations (interim settlements) are conducted in the years ending in odd numbers. Ordinarily, these second year negotiations are limited to negotiating wage levels only.

##### **3.1.3 Basic Collective Agreement for the Civil Service – "Hovedtariffavtalen i staten"**

The Basic Collective Agreement contains pay tables and pay structures for all grades in the state sector. It also contains regulations regarding the calculation of service seniority for wage setting, working hours, salary during sick leave/maternity leave, overtime, leaves of absence, pension rights, holidays established by contract, competence development and restructuring in the state.

##### **3.1.4 The Elements of Wage Negotiations**

Wage negotiations involve several elements. A pay grade can be increased by a specific amount in NOK or by a certain percentage. The pay ranges and pay frameworks may be adjusted, and grades may be added or removed from the pay structure. Further, the parties can set aside funding to conduct *central adjustment negotiations* for groups in certain occupational categories and they can also agree to set aside a certain amount for conducting *local negotiations*.

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<sup>5</sup> Act No. 2 of 18 July 1958 relating to Public Service Disputes.

### **3.1.5 Central Adjustment Negotiations**

During the central adjustment negotiations, the main confederations put forward demands for changes in the pay structures for all the grades in the Basic Collective Agreement (e.g. professor, associate professor, adviser). The state can also make similar demands. If the state, as represented by the Ministry of Government Administration, and the main confederations do not agree during the adjustment negotiations, the Government Wages Committee will decide the dispute. The Wages Committee consists of an equal number of members from the employee and employer organisations, supplemented by three impartial members.

### **3.1.6 Local Negotiations**

If funding has been set aside for local negotiations, these will be conducted in the autumn. They are conducted at the individual workplace, e.g. at the individual university college or university between local representatives of trade unions and the employer. It is possible to demand higher wages and/or changes in occupational categories. The Basic Collective Agreement for the Civil Service contains provisions regarding local negotiations.

### **3.1.7 Industrial Disputes**

The main confederations are free to accept or reject the results of the negotiations. Thus NAR cannot unilaterally break off negotiations with the state, but must follow the majority vote of Unio's members in the state sector. Collective agreements often have to be approved by a ballot vote of the union members who are covered by the agreement.

The Act relating to Public Service Disputes contains provisions that govern the procedure to follow in the event of disagreement on the main collective wage settlements. Legal strikes can not be called until the parties have tried mediation. In the event the parties do not reach agreement, industrial disputes (strikes/lockouts) can be initiated legally.

Once the parties agree on a new Basic Collective Agreement, a labour peace guarantee enters into effect for a certain period of time. During that time, the parties are not allowed to engage in legal industrial disputes relating to wages and working conditions.

## **3.2 The Municipal Sector**

### **3.2.1 Main Wage Settlements**

The Norwegian Association of Local and Regional Authorities (KS) and the confederations have collaborated to develop a system of negotiating coalitions among the employees' organisations. It is, however, the individual union that decides whether or not to accept the proposed collective wage agreement. One trade union can institute a work stoppage independent of the other unions belonging to the same confederation.

Just like the state sector; the main wage settlements for the municipal sector are conducted every two year (in years that end in even numbers). In these settlements, the parties negotiate revisions of the entire basic collective agreement in addition to negotiating wages. Wage renegotiations (interim settlements) are conducted in the years ending in odd numbers. Ordinarily, these second year negotiations are limited to negotiating wage levels only.

The *Basic Collective Agreement for Municipalities* contains regulations regarding service seniority for wage setting, salary during sick leave/maternity leave, overtime, leaves of absence and death benefits. The agreement also contains regulations on pension rights, holidays established by contract, and restructuring.

**For members of NAR, all wage formation in the municipal sector takes place locally, so wage levels is not a topic of negotiation during the central negotiations.**

### **3.2.2 Local Negotiations**

Several different elements are included in the wage negotiations for NAR's members in the municipal sector. Local elected officers are to negotiate a framework for the year's settlement. Based on the scope of the funds available, the parties can agree on a wage increase as a flat NOK supplement or as a percentage increase. The parties can also set aside funding for adjustment negotiations to make changes in the wage schedules for certain posts. At the local level, the parties can also agree on an economic framework for individual negotiations for the members of the Association in the municipality. Individual employees will then negotiate individually.

### **3.3 Private Sector**

In the private sector, wages vary from one business to the next. The same applies to wage formation and how negotiations are conducted. NAR has collective wage agreements/contracts with various employers' organisations as well as with a number of private institutions that are not affiliated with an employers' organisation.

Most enterprises conduct most of their negotiations locally with the individual organisations. Negotiating rights also can be a consequence of central agreements between NAR and the employers' organisations or of collective wage agreements/contracts between NAR and the enterprise.

NAR has collective wage agreements with the following employers' organisations in the private sector:

- **Abelia** – business association of Norwegian knowledge- and technology based enterprises.
- **HSH** – the Federation of Norwegian Commercial and Service Enterprises.
- **Spekter** – organises the regional health care enterprises.

## 4. Norway's Education and Research System

### 4.1 The Education System in Norway

#### 4.1.1 Compulsory Education

Year	Compulsory school
10	Lower Secondary
9	
8	
7	Upper Primary
6	
5	
4	Lower Primary
3	
2	
1	

#### Figure 3. Primary School

Compulsory schooling in Norway is 10 years and children start school at the age of six. Primary and lower secondary education in Norway is founded on the principle of a unified school system that provides equal and adapted education for all on the basis of a single national curriculum.

Universal schooling for children was introduced in Norway 250 years ago. From 1889, seven years of compulsory education were provided, 1969 this was increased to nine years and in 1997 to 10 years.

#### 4.1.2 Upper Secondary Education

All young people between the ages of 16 and 19 have a right to upper secondary education and training. The pupils can choose between vocational education programmes or programmes for general studies. Upper secondary education constitutes competence-building training between primary education and higher education.

#### Figure 4. Upper Secondary Education

Year	General studies (university admissions certification)	Vocational qualifications	
14			Apprenticeship
13	Advanced Course II (Vg3)	Advanced Course II (Vg3)	Apprenticeship
12	Advanced Course I (Vg2)	Advanced Course I (Vg2)	Advanced Course I (Vg2)
11	Foundation Course (Vg1)	Foundation Course (Vg1)	Foundation Course (Vg1)

It is possible for pupils who have finished their vocational education at Vg1 and Vg2 to take Vg3 supplementary programme for general university admissions certification.

#### 4.1.3 Higher Education

Higher education is based on research and usually builds on three years' completed and passed upper secondary education.

Norway has:

- A total of 39 state-run institutions with a total of approximately 190 000 students:
  - 8 universities (as of Jan 1, 2011)
  - 6 specialised institutions at university levels
  - 2 national institutes of the arts
  - 23 university colleges
- A total of 25 private higher education institutions with accredited study programs, with a total of 32 000 students.

Subsequent to the introduction of the Quality Reform (in line with the Bologna Process), the following degrees are available in higher education:

**Figure 5. Higher Education**

Year	Higher Education				
9					PhD (3)
8			PhD (3)	PhD (3)	
7					
6			Master's degree (2)	Integrated master's programme (5)	Professional programmes in medicine, psychology, theology, veterinary sciences (6)
5					
4		Teacher education, bachelor's degree in performing music or arts (4)			
3					
2	College candidate (2)		Bachelor's degree (3)		
1					

### **Degree Structure**

As a consequence of the Quality Reform, as of autumn 2003, three-year bachelor's degree programmes supplemented by two-year master's degree programmes were introduced for most courses of study. Among the important incentives underlying the introduction of the Quality Reform are the follow up of the Bologna Process and the establishment of the European Higher Education Area (EHEA).

The grading scale conforms to the European Credit Transfer System (ECTS) rating scale with the letters A (best) to E for pass and F for failed.

The 23 university colleges in general offer shorter courses than the universities. Studies at university colleges usually last from two to four years. They offer training for teachers, pre-school teachers, engineers, health care and social services, other two-to-three-year vocational educations and some programmes that parallel university courses at the basic and intermediate level, as well as programmes for graduate engineers, economists and business graduates.

Several university colleges offer master's degrees, and some are even entitled to award doctorates. They have plans to apply for accreditation as universities. University colleges also engage in research and development work.

Universities can offer study programmes at all levels without external accreditation, while university colleges must apply for external accreditation for study programmes at master's and PhD level.

### **NOKUT – The Norwegian Agency for Quality Assurance in Education**

NOKUT is a professionally independent government agency, with the mandate of conducting external quality assurance of higher education and tertiary vocational education and generally contribute towards the enhancement of educational quality.

NOKUT's mandate covers both Norwegian and foreign qualifications:

- conduct quality assurance and promote improvements in the education provided by Norwegian higher education institutions and tertiary vocational colleges.
- recognise foreign higher education qualifications in response to applications by individuals.

Norway has three main categories of institutions accredited for higher education:

- a) universities
- b) accredited university colleges
- c) specialised institutions at university levels.

An institution's category determines what kind of authority it has to award new degrees without having to apply to NOKUT.

**Figure 6. Degrees an individual institution can award based on its accreditation:**

The authority to award new degrees	Universities	Specialised institutions at university level	Accredited university colleges	Non-accredited places of study
Courses lasting for one-half year to two years				
Bachelor's degree courses				
Master's degree courses				
PhD studies				

The white squares show which degrees an institution can offer. The grey squares show the degrees for which an institution must apply to NOKUT for accreditation.

There is also a wide range of private higher education institutions without any self-accreditation rights. These institutions provide study programmes that are accredited (by NOKUT).

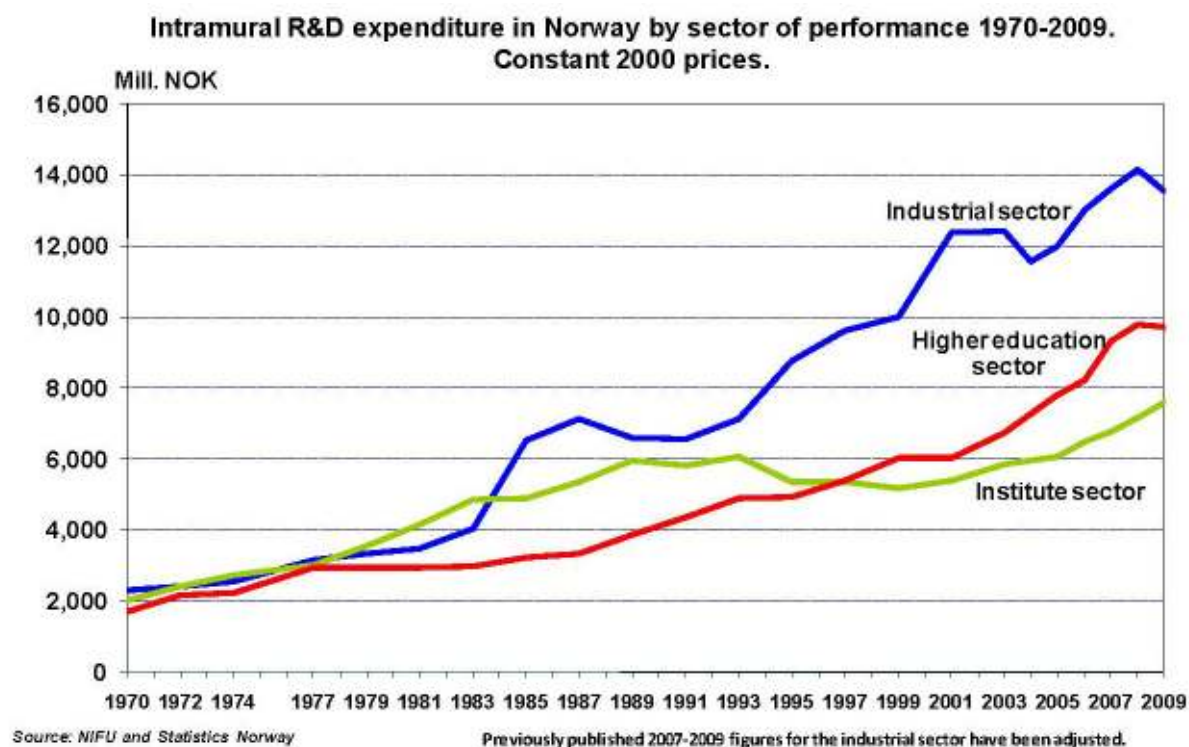
## 4.2 The Research System in Norway

In Norwegian R&D statistics, manpower and expenditure are classified in relation to three sectors of performance:

1. *Industry sector*, which includes companies, i.e. units producing goods or services for sale on the open market.
2. *Higher education sector*, which includes universities (and teaching hospitals), university colleges, and state colleges.
3. *Institute sector*, which includes research institutes and other R&D-performing units not included in the two above sectors.

In 2009 the total R&D expenditure in Norway was 41.9 billion NOK; of which the industry sector accounted for 43.5 per cent, the higher education sector 32 per cent and the institute sector 24.5 per cent.

**Figure 7. R&D expenditure in Norway, by sector:**



#### **4.2.1 Research in the Industry Sector**

Norway has an industrial structure that is different to most other industrialised countries. Norway has large export revenues derived from oil, gas and fish (raw materials). Also, Norway is home to relatively few large international company headquarters and/or R&D units. There is general consensus that it is necessary to take initiatives to increase the business community's share of research efforts. One measure in this context is the introduction of tax incentives for enterprises that do research (the "SkatteFUNN" scheme).

In 2009, the industrial sector provided close to 45 per cent of the overall R&D investment in Norway. The most comprehensive R&D activities take place within industrial companies, which carry out over half of the R&D activity within this sector. R&D activities within the service industry are on the rise. In general, R&D within the industrial sector is concentrated within a few major companies, whereas Norwegian trade and industry is dominated by small and medium-sized companies.

#### **4.2.2 Research in the Institute Sector**

Norway's independent research institute sector encompasses over 200 institutions. Of these, approximately 70 institutes are solely devoted to research. The total R&D investment in the institute sector is roughly one-fourth of the national R&D volume.

The research institute sector in Norway includes units from the government and private non-profit sectors, and also non-profit institutions performing R&D within the business enterprise sector. The institute sector largely performs applied research (63 per cent of total expenditure), while experimental development (23 per cent) and basic research (14 per cent) accounts for significantly lower shares.

R&D within the fields of natural sciences and engineering/technology dominates the sector, accounting for 54 per cent of total expenditure. The institute sector serves both the private and the public sectors. Government basic funding of research institutes and research programmes is to a great extent channelled through the Research Council of Norway. The Research Council has the strategic responsibility for the institute sector.

**4.2.3 Research in the Higher Education Sector**

The university and college sector carries out approximately one-third of Norway’s total R&D activities. These research efforts are financed through the institution’s basic allocations, grants from the Research Council and contracts from industry, public administration, private funds, etc.

The university and specialised university institutions have a considerably higher level of R&D activity than the university colleges. Moreover, the university and specialised university institutions have been given special responsibility for long-term basic research and researcher training.

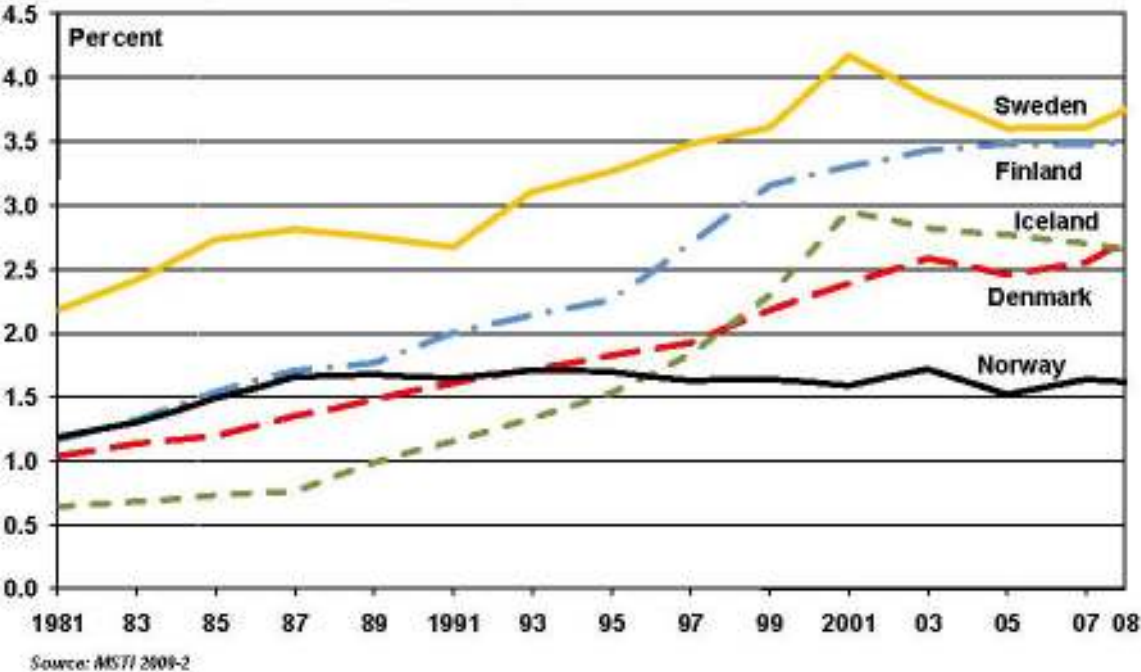
**4.2.4 Norwegian Research Policy**

The Government’s long term ambition is that the total R&D expenditure should constitute 3 per cent of GDP. Government budget appropriations for R&D should increase to 1 per cent of GDP.

In 2009, Norway’s total R&D-expenditure constituted 1.76 per cent of GDP. The number of R&D person-years amounted to 36.100. Public spending on research constituted 0.82 per cent, while 0.94 per cent was financed by industry, other sources and international sources. The relatively low level of R&D funded by industry can primarily be contributed to the fact that Norway has a more commodity based economy than many other countries in the OECD area and in the EU.

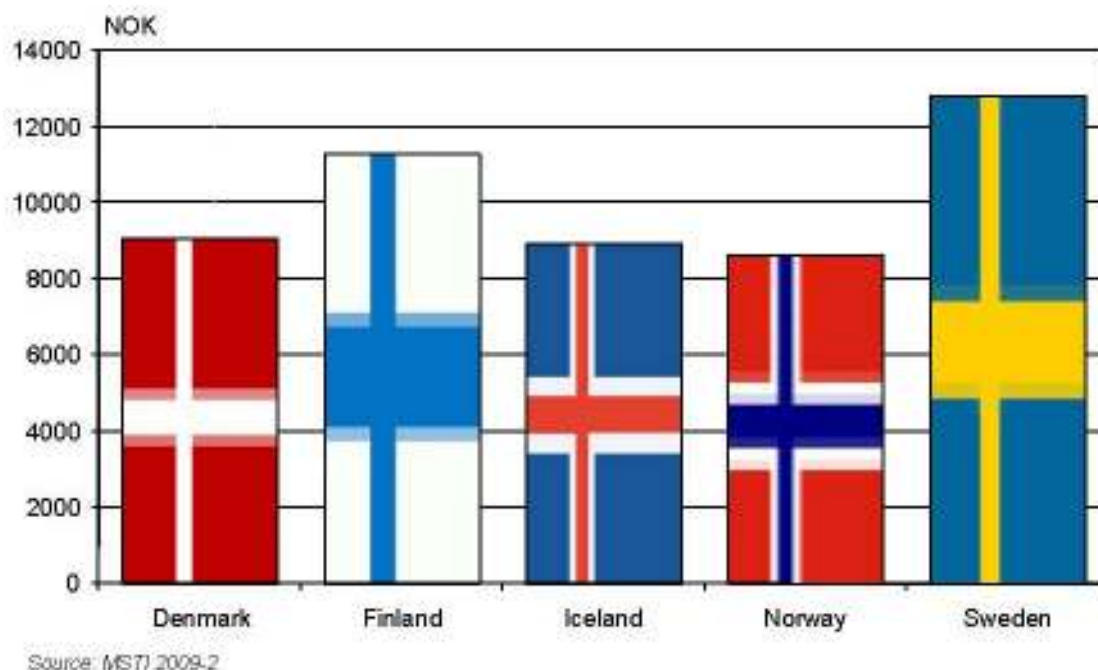
Compared to other countries Norway has a relatively high level of publicly funded R&D. In 2008, public spending constituted 46 per cent of total R&D spending, compared to an average of 23 per cent in the OECD area and 33.5 per cent in the EU. Only the U.S., Iceland and Austria among the OECD countries have a higher level of public R&D spending when measured per capita.

**Figure 8. R&D expenditure as a percentage of GDP (%) in the Nordic countries:**





**Figure 9. R&D expenditure per capita (NOK) in the Nordic countries (2008):**



### 4.3 Academic Career Structure at State Universities and University Colleges

Since 1995, universities and university colleges have essentially practiced a common academic career structure, but two different career tracks; a research-oriented and a teaching-oriented track.

**Figure 10. Job structure for academic appointments in the state sector**

Level of qualification	Universities and university colleges	Universities only	University colleges only
Top international standard	Professor		
More general scholarly qualifications than a full professor	Docent ( <i>Dosent</i> )		
PhD or comparable qualifications	Postdoctoral fellow ( <i>Postdoktor</i> ), Associate professor ( <i>Førsteamanuensis</i> ), Senior lecturer ( <i>Førstelektor</i> )		
Master's level	PhD candidate ( <i>Stipendiat</i> ), Assistant professor ( <i>Amanuensis</i> )	Lecturer ( <i>Universitetslektor</i> )	Lecturer ( <i>Høgskolelektor</i> )
4 years of higher education			University college teacher ( <i>Høgskolelærer</i> )

The research-oriented academic positions are *associate professor* and *professor*, while *lecturer*, *senior lecturer* and *docent* are teaching-oriented positions, but with the possibility of doing research. The *docent* position is a newly established top position for senior lecturers.

The post of *assistant professor* was removed in 1995, but those still having this title are entitled to use it. *Lecturer* and *senior lecturer* are positions that are not widely used in the university sector. The position as *university college teacher* is used in practice related professional programmes, mainly in teacher training and health education, and the holders of this position do not have a master's degree. In addition, the universities have some positions for full-time *researchers*.

Criteria for appointment and promotion to teaching and research posts are laid down by the Ministry of Education and Research. For appointment as associate professor, the normal requirement is a Norwegian doctoral degree in the subject area concerned, or a corresponding foreign doctoral degree recognized as equivalent to a Norwegian doctoral degree. However, also competence at a corresponding level documented by academic work of the same scope quality as a doctoral degree may be accepted. For appointment to lecturer and senior lecturer, a master's degree is the minimum requirement.

Academic appointments are combined posts in Norway. This means employees have the right and the obligation to teach and to do research. The lowest-ranking tenured appointment at universities and specialised university institutions is associate professor. At the state university colleges, the lowest-ranking tenured appointment is lecturer.

**Figure 11. Number of full-time equivalent academic posts in the state universities and university colleges in 2009**

Type of appointment	Number of full-time positions
Professor (Professor)	2 977
Docent (Dosent)	53
Associate professor (Førsteamanuensis)	3203
Senior lecturer (Førstelektor)	846
Lecturer (Universitetslektor)	925
Lecturer (Høgskolelektor)	2657
Assistant professor (Amanuensis)	159
University college teacher/Practice teacher (Høgskolelærer/øvingslærer)	488
Researcher (Forsker)	786
Postdoctoral Fellow (Postdoktor)	971
Ph.D. candidate (Stipendiat)	4419

## 4.4 Academic Career Structure in Other Sectors

### 4.4.1 Private Sector

In the private sector, it is up to the parties in the individual coalitions or at the individual workplace to agree on a job structure. In most cases, the parties agree on a three-part job structure based on qualifications and comparable to the job structure in the state sector:

- Research scientist I – qualifications corresponding to professor
- Research scientist II – qualifications corresponding to associate professor
- Research scientist III – qualifications corresponding to lecturer/assistant professor

#### 4.4.2 State Sector

In addition to the various academic occupational categories used at public universities and university colleges, other state enterprises can also make academic appointments. These enterprises can use the following grades:

Researcher (1108)	Qualifications corresponding to assistant professor
Researcher (1109)	Qualifications corresponding to associate professor
Researcher (1110)	Qualifications corresponding to professor (university college)
Researcher (1183)	Qualifications corresponding to professor (university)
Researcher (1111)	Subject-related managerial positions, qualifications corresponding to professor

#### 4.5 Wage Schedule for Academic Appointments in the State Sector

**Figure 12. The average wage (in NOK) as of December 2010 for academic appointments in the state sector**

<b>Post</b>	<b>Yearly wages ranging from (NOK)</b>	<b>Average yearly wage, December 2010, in Euro</b>	<b>Wage increases through</b>
Professor	538 900 – 1 106 400	82 710	Negotiations
Professor (Dosent)	538 900 – 1 106 400	74 811	Negotiations
Professor (Høgskoledosent)	456 400 – 857 500	75 687	Negotiations
Associate professor (Førsteamanuensis)	448 400 – 643 700	65 789	Negotiations and seniority
Associate professor (Førstelektor)	448 400 – 643 700	66 466	Negotiations and seniority
Assistant professor (Universitetslektor)	377 500 – 569 800	60 317	Negotiations and seniority
Assistant professor (Høgskolelektor)	377 500 – 569 800	62 405	Negotiations and seniority
Assistant professor (Amanuensis)	377 500 – 569 800	61 927	Negotiations and seniority
Lecturer/Practice teacher	343 100 – 510 200	56 163	Negotiations and seniority
Ph.D. Candidates	383 900 – 481 800	49 303	Negotiations and seniority

Source: SST and NAR's wage statistics  
(1 Euro = NOK 8)