Student Management Systems in the Nordic countries - Brief information

Student Management Systems in the Nordic countries

In the Nordic countries there are many similarities with how student information systems are run but also interesting differences. This brochure explains briefly the situation in the four Nordic countries.

Contents

Government requirements and steering

Sweden

There is a special legislation in Sweden for Universities and also legislation for Student Information Systems. It regulates in detail what must be documented and what data can be gathered, processed and sent to external parties.

Denmark

The Danish Government has basically three demands for our systems:
Integration: SU (Students' Grant and Loan Scheme) is a good example of this
Registration and reporting: Examples are STÅ-reporting, SA-reporting (National Archives) and DS-reporting (Statistics Denmark).
Requirements for admission and composition of courses and passing examinations: Examples are laws and departmental orders on grading scales and qualification rules.

The Danish Agency for Institutions and Educational Grants (SIU) has the project lead and is system owner of both the large student information systems - STADS for the universities and SIS for the University Colleges, Business Academies, and certain Maritime Educational Institutions.

Norway

CERES is constituted by the Norwegian Ministry of higher education, and is formally a part of University of Oslo.

Finland

Higher Education is separated to universities and to universities of applied sciences. The institutions have strong autonomy also on how they arrange their administration including student information systems. Institutions and the ministry of education and culture have an enterprise architecture focused governance system for steering the collaboration on higher education and research ICT.
Legislation for the state run joint student admission service and the higher education information service sets interoperability requirements for operational information sharing on students, enrollments, credits and qualifications. This "VIRTA"-service is also key component on reporting for the performance based state funding.

The Netherlands

There is sectoral legislation in the Netherlands for Universities & Universities of applied science and also legislation for Studielink. It regulates in detail what must be documented and what data can be gathered, processed and sent to external parties.
All state funded institutions send their student data through a machine-machine interface to DUO, the executive agency of the Ministry of Education, Culture and Science. DUO keeps registers for all educational sectors and since 2012 the Diploma Register is available for Dutch inhabitants.
From 2018 onwards also the not state funded institutions will send their student data to DUO on a legal basis. Then their diplomas will be added to the Diploma Register.

HE structure, number of universities covered

Sweden

All varieties of HE institutions – universities and university colleges – in one and the same structure
Most are state institutions; a handful private
Ladok used in 37 out of 49 HEI, covers 98-99 % of students in HE
Higher Vocational Education gathered in a new structure; now preparing to use Ladok

Denmark

In Denmark there are 45 institutions in total offering higher education:
8 universities
8 university colleges
9 business academies
10 maritime education institutions
10 institutions within fine arts, classical and rhythmic music, film and theatre and dance

The structures of the educations are predominantly based on a 3 year bachelor level and a 2 year graduate level. The university colleges and business academies educate 3-4 years bachelors. Gradually all institutions of higher education have become independent.

Norway

There are eight universities, and a number of states university colleges and smaller private colleges.
All Universities and State University Colleges are using FS.
Only a small number of private are not using FS.
The structures of the educations are predominantly based on a 3 year bachelor level, 2 year graduate level and 3 years PhD level.

Finland

There are 38 higher education institutions under the government oversight and the Åland University of Applied sciences in the autonomous region.
In 14 universities and the National Defence University the structure of the education is in general based on a 3 year bachelor level, 2 year masters level and 3 years PhD level. The students are usually admitted directly to masters level (to bachelors and masters degree).
In 23 universities of applied sciences and the Police University College the structure of the education is based on 3,5 to 4 year bachelor level and additional masters level of 1 to 1,5 year which can be studied after minimum of three years of work experience on the field in question.
There are many different Student Information Systems (SIS) in use and predominantly two new HEI owned developing systems being adopted. Currently Oodi, used and owned by 9 universities, is the most widely used SIS.

The Netherlands

The Netherlands has a binary structure: (research) Universities and Universities of applied science (hogeschool). There are 37 state funded Universities of applied science and 18 Universities. There are 87 not state funded institutions of which a large number is very small.

Product ownership: Who owns / decides / funds?

Sweden

System product Ladok owned by member HEI:s through a consortium.

- Regulated by a Consortium Agreement
- The National Student Aid Agency is also a member
- Decisions are made by the assembly, the supreme policy- and decision-making body, and by the board
- Funding almost entirely by member fees (no entrance fee, annual fees distributed according to number of students)
- Direct Government funding only exception-wise
- Locally owned information, separated Ladok student registers
- Regular meetings with local system owners and system managers

Annual budget is for 2017 about 10 million Euros.

Denmark

The systems STADS and SIS are owned by the Ministry of Higher Education and Science.

STADS is funded entirely by fees to the HEIs, which is distributed according to the number of full-time equivalents on the universities.
Overall decisions are made by the STADS Steering Committee, where the Ministry of Higher Education and Science holds the Chair. The Steering Committee makes decisions on the following:

- Approval of budget, strategy and accounting.
- Development of plan of actions including priority of activities for the cooperation.
- Making agreements with external vendors.
- Decisions on changing the core of the systems

The System has its own System owner committee (mainly Heads of the Registrars Offices on the Universities) which is responsible for development of strategy, budget and also seeking common solutions to common problems on the system. Finally the System owner committee takes care of matters escalated to the committee from lower levels. The System owner committee is a kind of Board for the single system.
The Specialist Committee is prioritizing new versions of the system and recommending strategy to the system owner committee.

SIS is funded partly by fees to the HEIs, partly through grants from the government.
The Ministry of Higher Education and Science holds the Chair at the SIS Steering Committee, which makes decisions on the development of plan of actions including priority of activities for the cooperation.

Norway

FS is owned by CERES and financed by all institutions using FS.
The board of CERES decides the Budget and plans for the next year in cooperation with the institutions using FS.
The budget is based on the strategic plans.
The annual fee for each institution is a part of the budget and his how FS development is founded.
The annual budget is approx 4 million Euro (from 2017 budget)

Finland

As there are many student information systems and other related services owned and developed by different consortia etc, there is no national level decision making or funding. The institutions collaborate on a unofficial forum "Collaboration group" , formed by the networks of the Heads of Student Affairs and CIOs.

Oodi is owned, funded and steered by the 9 universities of the consortium, led by a steering committee by the members. Executive agency for consortium is CSC - IT-center for Science, which is a limited company owned by the state and all the higher education institutions (except the National Defence University, the Police University College and Åland University of Applied sciences).

Of the two new SIS the Peppi is currently most widely adopted with 4 Universities of Applied Sciences in production and most of the institutions are planning to adopt it, including 4 of the Oodi members. Peppi is arranged as a consortium operated by the Metropolia university of applied sciences. Peppi is funded by the member institutions and led by a joint steering committee.

The other new SIS is Sisu, owned and being adopted by 5 Universities, including 3 of the Oodi members. Sisu is arranged as a limited company, Funidata, owned by the 5 universities. Sisu is funded by the universities and decisions of the product development are ultimately done by the board of directors for the company.
Other SIS's are owned by vendors and HEI's are in direct customer relation with vendors or are in house production of HEI concerned. Of these only one, Primus by Visma InCommunity ltd., is planned to be in use also in the future.

National student admissions are operated, funded and steered by the National Agency for Education. The higher education information service (VIRTA) is owned by the ministry of education and culture and operated by the CSC - IT-center for Science.

The Netherlands

Every institution acquires its own SMS. There are many venders: about 17.
The central enrolment portal Studielink is for most processes the broker between DUO and the institutions. Studielink is owned and funded by the institutions altogether.

Application management: Who orders / develops / maintains?

Sweden

- Separation of Business and IT parties
- Business side: CEO of the consortium + Area Managers and experts
- IT management: Both development and maintenance included
- The operative developing work is done at ICT Services and System Development, Umeå university
- For "next year": Board forms a proposal => Assembly decides on a cost frame and an investment frame => Board defines a commission together with financing => technical supplier
- Management on the national level (Consortium – Umeå univ): Long-term bilateral agreements + annual management contracts
- Corresponding counterparts on the Business / IT sides on every level

- System operation suppliers (3 certified), contracted by each HEI. Soon to be only one center.

Denmark

The Danish Agency for Institutions and Educational Grants (SIU) is the contract holder, manages further development of the system and has nearly all contact to the vendor concerning the development of the systems.

STADS: Communication on problem reports goes directly between the Vendor and the single institution, but if problems arise, SIU gets involved.
Single universities can use the contract themselves, but ordering new functionality or assistance at the Vendor has to go through SIU.
An external vendor develop and maintain the System. KMD is the supplier of this service after winning the last tender in 2014.

SIS: Communication on problem reports goes through the SIS Help Desk situated in SIU. KMD is the supplier of new development.

Norway

Board of CERES decide, CERES develops and operates, experts (from institutions) define and CERES develops.
The long term strategy for FS and the overall yearly plan are decided by the board of CERES. The HE sector is involved in development of the strategy through different groups.
In addition FS has a planning group and a number of expert groups taking care of specifications and prioritization for the different FS products.

The operational FS vendor organization consist of 25 man year, 18 developers, five in FS-support and 2 misc.

Finland

Application management and development varies but in general the management and development is run by in house crews augmented by subcontracted specialists from various vendors. Long term development plans and strategies as well as specifications and incident management are discussed in different levels of ecosystem specific workgroups and steering bodies. There is a well established specialist work group of student affairs and IT specialist for national collaboration, called the “Synergy group”.
Most of the installations are for single institution but some joint installations are planned. The system operations are done in local machine rooms or by some institution offering operations also to some other institutions or at CSC or at public cloud services by private vendors.

The Netherlands

All the state funded institutions work together in the Higher Education Chain and the Ministry of Education, Culture and Science is in control (legalisation & funding). There is also space for contribution on the side of the institutions.
Big changes are handled in agile programmes with an independent programme managers and all parties involved.

What functional groups (on a high level) are included in today's SMS?

Sweden

- Admission. Exchange of data with the NyA system
- Exchange of students. Student data but not agreements or contracts
- Personal information
- Students at programmes of study. Not individual education plans
- Student registration-. Incl. course or semester registration
- Assessment. Exams, study results
- Not scheduling or room reservations
- Recognition of external studies
- Degrees
- PhD
- Elements of Study. Programme structures, courses and parts of courses & rules;
- Not complete syllabuses or study plans
- Statistics, internal and external reporting. Incl. reporting to governmental agencies for grants, statistics
- Self service for students. Registration, signing up for exams, applying for degrees, transcripts etc
- Self service for faculties. Results, modules for information

Denmark

STADS:

- Application for admission and interface to KOT'en (The Coordinated Enrollment System.)
- Educational structure
- The Personal curriculum (dispensations, rules, leave of absence, registration for the studies, ending the studies…)
- Signing for lectures
- Signing for exams
- Registration of results
- Course- and examinationplanning – not very well developed
- Part time paying students
- Statistics (management information and statistics) – not very well developed
- Reports to various governmental agencies
- Students self service
- Interface to State education Grant and Loan Scheme
- STADS VIP: Decentralised registration of results

SIS: the same functional groups as STADS except for students self service
DANS:

- Self service portal which enables everyone to apply for studies, when admission is not coordinated by the KOT

Norway

Moduls in FS

- The Person module
- Students admission to study programs (handling national and local admission)
- Study rights, individual education plans
- Student exchange

- Registration
- Teaching and learning
- Exams
- PhD
- Qualifications
- Further and continuing education
- Payment
- Scholarships
- Study elements

FS Apps:

- Back office
- Studentweb: Self service app for students
- Søknadsweb: Self service app for applicants
- EVUweb: Self service app for continuing education
- Nomination: For student exchange partners
- Fagpersonweb: App for faculties
- EpN: App for course planning
- Reports to various governmental agencies
- STAR: Management information and statistics
- GAUS: Recognition of foreign studies

Finland

Common functional groups in the student information systems (Oodi, Peppi, Sisu, Primus etc.)

- Tools for the teachers and administration of the degree programmes and courses
    - Programme structures, courses and parts of courses & rules
    - Recognition of external studies
    - Management of results and degrees
- Student self services
    - The individual study plan and the personal curriculum
    - Enrollment for courses etc.
- Management of student information, study rights etc.
- Open, further and continuing education, PhD
- Statistics, internal and external reporting
- Import of information from the national student admissions services and from the common enrollment service of the higher education institutions
- Export of information to the higher education information service

The Netherlands

At strategic level the Chain Control Meeting (Ketenregieoverleg) governs the changes. Participants are: the ministry (chair), DUO, Studielink, 2 umbrella organisations for Universities and Universities of applied science, 2 board members of institutions, student organisations.
On the tactical and executive level the Chain Meeting meets 6x per year. Participants are: the ministry, DUO (co-chair), Studielink (co-chair), 2 umbrella organisations for Universities and Universities of applied science, student administration managers and policy advisors of all institutions. The morning agenda is plenary and in the afternoon the participants split up in 4 working groups: policy, administration, ICT, international.
From 2018 onwards a 5th working group will be added or the not state funded institutions.
Every institution has its own meetings with the vendor of its SMS.
The admissions officers have their own meetings for both Universities and Universities of applied science.