

## GIVING LEADERS AND MANAGEMENT EASIER ACCESS TO STUDENT DATA

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All Norwegian higher education institutions (HEIs) use common, national information systems to support HEIs' most central activities: research and studies. The three main information systems are:

- FS - *Felles studentsystem* - national student information system,
- SO - *Samordna opptak* - national admission system
- CRISTIN - *Current research information system in Norway*

The above mentioned systems are developed at CERES - National Center for Systems and Services for Research and Studies. These common information systems contain considerable amount of data, but it is not always easy for leaders and management to get the data they need in a form which is suitable for their needs. In this paper we will present the national project and the work that was done to make the data in the Norwegian student information system FS more accessible to both administrative and academic leaders and management.

The first step in the process focused on pinpointing what area of data that was most relevant to start with. Previous attempts at developing analytical reports suffered in some ways because of the scope for the report sheets that was defined too broad. The attempt to make the "ultimate" report that contained everything in one place was abandoned. In order to take a fresh look at the task and at the same time ensure the necessary involvement of the HEIs, a national committee was established. The committee's recommendation was to focus on development of the following analytical reports: reports presenting number of students, the number of degrees and how many students that drop out during the course of their studies at the Norwegian HEIs. This includes also data about the period of time the students used to get their degree.

After the committee's conclusion was submitted, it became evident that the software that was used for developing and implementing the reports was not suited for the job. The committee stressed the importance of more emphasis on visualization, making the system one had at hand not well suited for the job. The HE-sector was in need of a new system for developing the analytical reports for retrieving and presenting the data from the Norwegian common information systems.

After a time-consuming and challenging tender process, the business intelligence software Tableau was chosen. The process of development and implementing the reports was coordinated and executed by the Section for data warehouse at CERES. The software and the analytical reports were tested by just a few users from each University and University College in Norway. The first users were all advanced users and experts of FS, the student information system, since a good knowledge of the data in the reports was one of the main prerequisites of successful test of the reports. The testers tested the quality of the data in the analytical reports as well as the design of the reports in order to ensure that the criteria in the project description designed by the first of the national committees were matched. The reports were made available for the leadership and management at the HEIs.

The HEIs are now able to give easy access to data that previously was only accessible to a few. The data is also presented in a more clear manner with emphasis on graphs and visualization. The reports help the institutions getting comprehensive information about their students and ensure a proper decision support. The HEIs can now easily take a look at the data about the number of

students, degrees and drop outs at the different levels of detail in their organization. The can choose between a broad picture at the institutional level or the detailed look at some specific bachelor programs, and looking at factors such as age, gender and grade point average from high school. The development of more reports continues and is conducted in close dialogue and based on the needs of the institutions. Examples of reports developed during the project will be given at the presentation.



Ragnar Pettersen has a Master in Mathematics from them University of Oslo. He has previously been working at the Department of Mathematics at the University of Oslo with student and research administration. He is currently working at CERES - National Center for Systems and Services for Research and Studies at the group for Data Warehouse as a Senior Engineer. He is in charge of developing the reports in Tableau for student data.