

The Concept Research Programme

Introduction

The Norwegian Ministry of Finance initiated in 2000 a quality assurance scheme to ensure improved quality-at-entry in large public projects. As a result 10-20 of the largest projects are annually subjected to a thorough external review of anticipated costs, time schedule and major uncertainties that might affect the project's outcome, before the budget is submitted to the parliament. The quality assurance scheme is further developed and will be renewed in 2004.

The Concept research program was started in 2002, with the long-term objectives to improve initial concept selection, better usage of resources and ultimately to achieve higher value-added in major government funded projects. It is designed to conduct trailing research on the quality assurance scheme, focusing on uncertainty analysis, portfolio management, project concept development and selection, and the quality assurance scheme itself. The program narrows its research on the financing party's view on projects, which is generally broader and more long-term than the contractor's view. Funding comes from the Ministry of Finance, with the equivalent of some USD 4 million in total. It is managed from the Norwegian University of Science and Technology, with involvement from the University of Oslo, other relevant research institutions as well as the consulting firms assigned under the quality assurance scheme.

The program will run from 2002-2008, and will assist the government in improving the scheme, establish standards and procedures for front-end quality assurance in private and public projects and generate knowledge and insights to develop university-level teaching programs in front-end management of projects. This is illustrated in figure 1. The Concept Research areas for 2003-2006 are illustrated in figure 2.

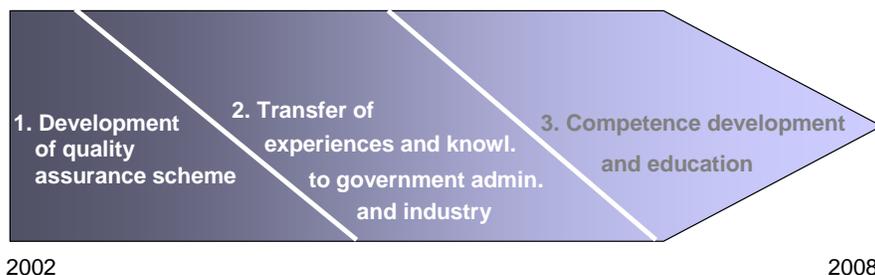


Figure 1: Concept's three focus areas

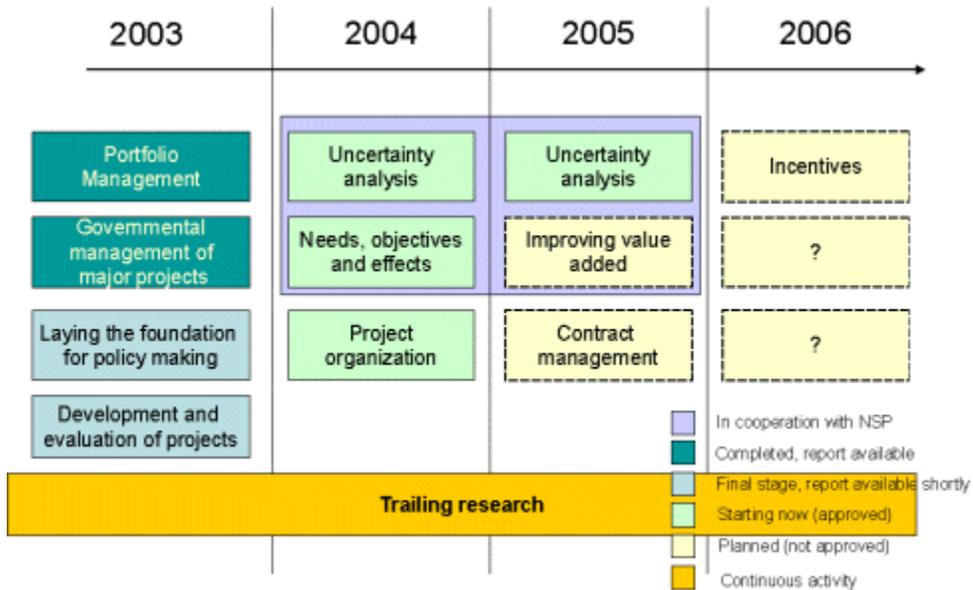


Figure 2: Concept Research areas 2003-2006

Current activities

As can be seen in figure 3, Concept has broken its activities down into projects, of which several are under way or are being started. These projects are led by parties with leading competencies in the field, whether they belong to academia, consultancy firms, industry or other. A selection of the current projects is briefly described below.

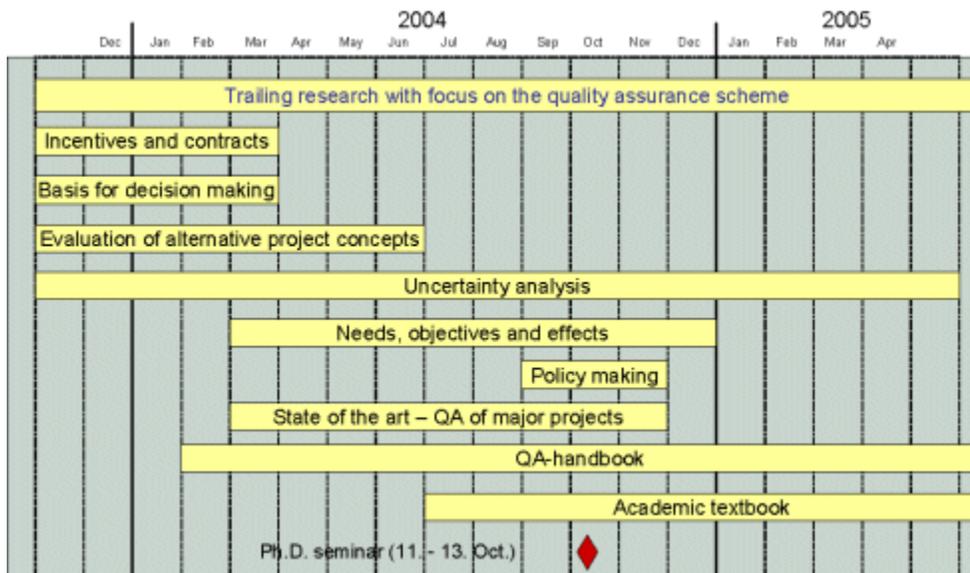


Figure 3: Overview of activities in 2004-2005

The first major Concept study was on practical project portfolio management at ministry level, conducted by the consultancy group Dovre International.

The Norwegian research institution SINTEF completed an evaluation study in May, focusing on how the quality-at-entry scheme can be enhanced in the upcoming contract renewal round due approximately September 2003. One recommendation from their report was to place added emphasis on quality-assurance in the earliest phase when the concepts are selected.

In line with this recommendation, a study on front-end evaluation and concept development is under way, jointly undertaken by the consultancy firms TerraMar and Metier Scandinavia. The aim for this study is to give recommendations for improved practices for the concept selection phase in both public and privately owned large projects.

Concept staged an international Symposium on “Front-end Management of large Public projects” autumn 2003. The event took place in Oslo, with selected participants within the field of front-end management of large projects, representing academia, government and practitioners alike. The idea was to explore the state-of-the-art within the field of front-end management of major projects, and to facilitate the formation of a strong network for such specialists.

Since Concept has unique access to data from the largest investment projects of the Norwegian government, a database is designed with the aim to analyze the dynamics of such projects. The majority of the projects belong in the categories of infrastructure (road, bridge, and railway), building and construction, ICT, defence and procurement projects. It is believed that the database will provide the research team with invaluable insights for improving the success rate of projects in the future.

The Ragnar Frisch Centre for Economic Research, in collaboration with the University of Oslo and Norwegian School of Management, is currently investigating how the proper use of contracts and incentive mechanisms can be used to optimize the effectiveness of projects at the ministry, agency and project levels.

A study led by project management specialists at the Norwegian University of Science and Technology in Trondheim is focusing on improving the practices for estimation of costs and uncertainty in major projects.

A study led by consultancy firm HolteProsjekt is exploring the dynamics of decision making in public projects, with the aim to come up with recommendations for improving the effectiveness of such processes. It is important for decision makers that they have an unbiased and thorough basis for making their decisions at various milestones in projects.

A study carried out by leading researchers at the universities in Trondheim and Oslo, and the Norwegian Institute for Urban and Regional Research (NIBR) will give recommendations and insight in how the intended effect of government funded projects can be secured.

Finally, a practical development of new project management structures, such as the use of steering committees, is performed in a ongoing building project. The Concept research program will continue to study and try out several new management techniques and approaches initiated by the experiences gathered in the quality assurance scheme.

Being explicitly practical in its approach, Concept is planning a handbook containing best practice instructions on front-end quality assurance for government and industry. Professor Knut Samset has recently finished the book "Project Evaluation. Making investments succeed".

Trailing research

As mentioned, trailing research is a central part of the Concept research program. This implies that researchers will participate in quality assurance projects conducted by external consultancy firms. Through this type of hands-on experience, they shall contribute to competence development, experience transfer and competence dissemination to public institutions and industry. Concept's researchers will be available for government institutions as advisors within their fields of expertise.

The building of a research database and supply of primary data from the analyzed projects is one of the most important activities in the Concept Program.

The Concept program will be continuously developed based on problems and needs that evolve and arise during the program period. Concept will pay close attention to the mandate given by the Norwegian government regarding the quality-at-entry regime. Cooperation with key international institutions is seen as a prerequisite for success.

Organization and collaborating institutions

Figure 4 illustrates the major players that Concept is interacting with.

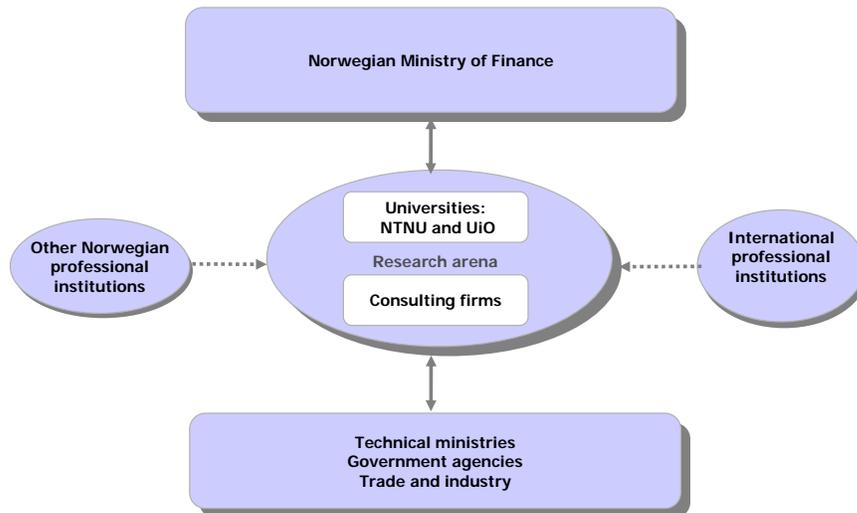


Figure 3: Collaborating institutions

The Concept Program is headed by Professor Knut Samset. Daily coordination of the program is handled by Research Director Ole Jonny Klakegg. A steering committee is headed by Deputy Director General Peder Berg of the Norwegian Ministry of Finance. Concept welcomes initiatives for international cooperation within its areas of expertise. You can find necessary contact details on our webpage www.concept.ntnu.no.