

concept

Knut F. Samset, Gro Holst Volden
Nils Olsson and Eirik Vårdal Kvalheim

Governance schemes for major public investment projects:

A comparative study of principles
and practices in six countries

Concept report No 46





**Knut F. Samset, Gro Holst Volden
Nils Olsson and Eirik Vårdal Kvalheim**

Governance schemes for major public investment projects:

**A comparative study of principles
and practices in six countries**

Concept report No 46

Concept report no. 46

Governance schemes for major public investment projects: A comparative study of principles and practices in six countries

Knut F. Samset, Norwegian University of Science and Technology

Gro Holst Volden, SINTEF

Nils Olsson, Norwegian University of Science and Technology

Eirik Vårdal Kvalheim, Norwegian University of Science and Technology

English summary

Original title: Styringsregimer for store offentlige prosjekter. En sammenliknende studie av prinsipper og praksis i seks land

ISSN: 0803-9763 (paper version)

ISSN: 0804-5585 (web version)

ISBN: 978-82-93253-47-1 (paper version)

ISBN: 978-82-93253-48-8 (web version)

Date: December 2015

Publisher: Ex ante Academic Publisher
Concept Research Program
Norwegian University of Science and Technology
7491 NTNU – Trondheim
Norway
www.ntnu.no/concept

Responsibility for the information in the reports produced on behalf of the Concept Research Program is on the commissioned party. Views and conclusions is on account of the authors and not necessarily identical to the views of the Concept Research Program. All contributions are reviewed in a peer review process.

English summary

This study concerns governance schemes for major public investment projects and how they are organized and practiced at state level today. Starting with the Norwegian scheme, often referred to as the State Project Model or the Quality Assurance scheme (Samset and Volden, 2013), similar schemes in five other countries are explored: the Netherlands, the UK, Sweden, Denmark and Canada (Quebec). Some have more than one governance scheme, for example, depending on the sector. The Danish scheme applies only to road and rail projects, and there is a separate scheme for ICT projects. By contrast, Norway and the UK have schemes that apply to all types of infrastructure investments. The UK scheme even applies to government transformation and service delivery projects. Common to all schemes investigated is that they are used for the overall management of large investment projects funded by the state, and applied to projects with high cost and/or complexity, or highly innovative.

This report starts by defining key concepts and principles related to project governance at state level, and explain the importance of the front-end phase and the role of the government. Thereafter, we present the governance scheme in each of the six countries, and the underlying stage-gate model as well as the involved parties and their roles, with special focus on the use of independent quality assurance in the process. We also present one project case per country to illustrate the application of the schemes. It should be noted that the study does not go further into the use of guides and standards or templates that normally also exist on a more detailed level in agencies involved.

There are many similarities between the governance schemes in the countries. For example, the respective governments have a central role, not least in making the choice of project concept. The number of project phases and decision points in the stage-gate models varies somewhat between the countries. In the Scandinavian countries, the requirements for independent quality assurance apply only to the front-end phases, before the projects are formally approved. In the UK the state may require independent quality assurance throughout the project and even in its operational phase.

In most of the countries a third party - independent of the political decision-maker and the agency responsible for delivering the project - has the role of adviser or quality assurer. In Norway and Denmark, private sector consultants

are used for this purpose, whereas in the Netherlands, Canada and the UK a separate public body is established. By contrast, in Sweden quality assurance is mainly an internal activity practiced in the existing agencies.

All schemes are of a fairly recent date, and it is too early to explore their effects and degree of success, which would have to be the topic of future studies.

Concept report series

Paper version ISSN 0803-9763

Web version ISSN 0804-5585

Norwegian www.ntnu.no/concept/publikasjoner/rapportserie

English summary www.ntnu.edu/concept/publications/report-series

| Report | Title | Author |
|--------|--|---|
| No 1 | Styring av prosjektporteføljer i staten. Usikkerhetsavsetning på porteføljenivå <i>Project Portfolio Management. Estimating Provisions for Uncertainty at Portfolio Level.</i> | Stein Berntsen and Thorleif Sunde |
| No 2 | Statlig styring av prosjektledelse. Empiri og økonomiske prinsipper. <i>Economic Incentives in Public Project Management</i> | Dag Morten Dalen, Ola Lædre og Christian Riis |
| No 3 | Beslutningsunderlag og beslutninger i store statlige investeringsprosjekt <i>Decisions and the Basis for Decisions in Major Public Investment Projects</i> | Stein V. Larsen, Eilif Holte and Sverre Haanæs |
| No 4 | Konseptutvikling og evaluering i store statlige investeringsprosjekt <i>Concept Development and Evaluation in Major Public Investment Projects</i> | Hege Gry Solheim, Erik Dammen, Håvard O. Skaldebø, Eystein Myking, Elisabeth K. Svendsen and Paul Torgersen |
| No 5 | Bedre behovsanalyser. Erfaringer og anbefalinger om behovsanalyser i store offentlige investeringsprosjekt <i>Needs Analysis in Major Public Investment Projects. Lessons and Recommendations</i> | Petter Næss |
| No 6 | Målformulering i store statlige investeringsprosjekt <i>Alignment of Objectives in Major Public Investment Projects</i> | Ole Jonny Klakegg |
| No 7 | Hvordan tror vi at det blir? Effektvurderinger av store offentlige prosjekt <i>Up-front Conjecture of Anticipated Effects of Major Public Investment Projects</i> | Nils Olsson |
| No 8 | Realopsjoner og fleksibilitet i store offentlige investeringsprosjekt <i>Real Options and Flexibility in Major Public Investment Projects</i> | Kjell Arne Brekke |
| No 9 | Bedre utforming av store offentlige investeringsprosjekter. Vurdering av behov, mål og effekt i tidligfasen <i>Improved Design of Public Investment Projects. Up-front Appraisal of Needs, Objectives and Effects</i> | Petter Næss med bidrag fra Kjell Arne Brekke, Nils Olsson and Ole Jonny Klakegg |
| No 10 | Usikkerhetsanalyse – Kontekst og grunnlag <i>Uncertainty Analysis – Context and Foundations</i> | Kjell Austeng, Olav Torp, Jon Terje Midtbø, Ingemund Jordanger and Ole M Magnussen |
| No 11 | Usikkerhetsanalyse – Modellering, estimering og beregning <i>Uncertainty Analysis – Modeling, Estimation and Calculation</i> | Frode Drevland, Kjell Austeng and Olav Torp |
| No 12 | Metoder for usikkerhetsanalyse <i>Uncertainty Analysis – Methodology</i> | Kjell Austeng, Jon Terje Midtbø, Vidar Helland, Olav Torp and Ingemund Jordanger |
| No 13 | Usikkerhetsanalyse – Feilkilder i metode og beregning <i>Uncertainty Analysis – Methodological Errors in Data and</i> | Kjell Austeng, Vibeke Binz and Frode Drevland |

Concept report series

Paper version ISSN 0803-9763

Web version ISSN 0804-5585

Norwegian www.ntnu.no/concept/publikasjoner/rapportserie

English summary www.ntnu.edu/concept/publications/report-series

| Report | Title | Author |
|--------|---|--|
| | <i>Analysis</i> | |
| No 14 | Positiv usikkerhet og økt verdiskaping <i>Positive Uncertainty and Increasing Return on Investments</i> | Ingemund Jordanger |
| No 15 | Kostnadsusikkerhet i store statlige investeringsprosjekter; Empiriske studier basert på KS2 <i>Cost Uncertainty in Large Public Investment Projects. Empirical Studies</i> | Olav Torp (red.), Ole M Magnussen, Nils Olsson and Ole Jonny Klakegg |
| No 16 | Kontrahering i prosjektets tidligfase. Forsvarets anskaffelser. <i>Procurement in a Project's Early Phases. Defense Aquisitions</i> | Erik N. Warberg |
| No 17 | Beslutninger på svakt informasjonsgrunnlag. Tilnærminger og utfordringer i prosjekters tidlige fase <i>Decisions Based on Scant Information. Challenges and Tools During the Front-end Phases of Projects</i> | Kjell Sunnevåg (red.) |
| No 18 | Flermålsanalyser i store statlige investeringsprosjekt <i>Multi-Criteria Decision Analysis In Major Public Investment Projects</i> | Ingemund Jordanger, Stein Malerud, Harald Minken and Arvid Strand |
| No 19 | Effektvurdering av store statlige investeringsprosjekter <i>Impact Assessment of Major Public Investment Projects</i> | Bjørn Andersen, Svein Bråthen, Tom Fagerhaug, Ola Nafstad, Petter Næss and Nils Olsson |
| No 20 | Investorers vurdering av prosjekters godhet <i>Investors' Appraisal of Project Feasibility</i> | Nils Olsson, Stein Frydenberg, Erik W. Jakobsen, Svein Arne Jessen, Roger Sørheim and Lillian Waagø |
| No 21 | Logisk minimalisme, rasjonalitet - og de avgjørende valg <i>Major Projects: Logical Minimalism, Rationality and Grand Choices</i> | Knut Samset, Arvid Strand and Vincent F. Hendricks |
| No 22 | Miljøøkonomi og samfunnsøkonomisk lønnsomhet <i>Environmental Economics and Economic Viability</i> | Kåre P. Hagen |
| No 23 | The Norwegian Front-End Governance Regime of Major Public Projects – A Theoretically Based Analysis and Evaluation | Tom Christensen |
| No 24 | Markedsorienterte styringsmetoder i miljøpolitikken <i>Market oriented approaches to environmental policy</i> | Kåre P. Hagen |
| No 25 | Regime for planlegging og beslutning i sykehusprosjekter <i>Planning and Decision Making in Hospital Projects. Lessons with the Norwegian Governance Scheme.</i> | Asmund Myrbostad, Tarald Rohde, Pål Martinussen and Marte Lauvsnes |
| No 26 | Politisk styring, lokal rasjonalitet og komplekse koalisjoner. Tidligfaseprosessen i store offentlige investeringsprosjekter <i>Political Control, Local Rationality and Complex Coalitions. Focus on the Front-End of Large Public Investment Projects</i> | Erik Whist and Tom Christensen |

Concept report series

Paper version ISSN 0803-9763

Web version ISSN 0804-5585

Norwegian www.ntnu.no/concept/publikasjoner/rapportserie

English summary www.ntnu.edu/concept/publications/report-series

| Report | Title | Author |
|--------|--|---|
| No 27 | Verdsetting av fremtiden. Tidshorison og diskonteringsrenter <i>Valuing the future. Time Horizon and Discount Rates</i> | Kåre P. Hagen |
| No 28 | Fjorden, byen og operaen. En evaluering av Bjørvikautbyggingen i et beslutningsteoretisk perspektiv <i>The Fjord, the City and the Opera. An Evaluation of Bjørvika Urban Development</i> | Erik Whist and Tom Christensen |
| No 29 | Levedyktighet og investeringstiltak. Erfaringer fra kvalitets sikring av statlige investeringsprosjekter <i>Sustainability and Public Investments. Lessons from Major Public Investment Projects</i> | Ola Lædre, Gro Holst Volden and Tore Haavaldsen |
| No 30 | Ettrevaluering av statlige investeringsprosjekter. Konklusjoner, erfaringer og råd basert på pilotevaluering av fire prosjekter <i>Evaluating Public Investment Projects. Lessons and Advice from a Meta-Evaluation of Four Projects</i> | Gro Holst Volden and Knut Samset |
| No 31 | Store statlige investerings betydning for konkurranse- og markedsutviklingen. Håndtering av konkurransemessige problemstillinger i utredningsfasen <i>Major Public Investments' Impact on Competition. How to Deal with Competition Issues as Part of the Project Appraisal</i> | Asbjørn Englund, Harald Bergh, Aleksander Møll and Ove Skaug Halsos |
| No 32 | Analyse av systematisk usikkerhet i norsk økonomi. <i>Analysis of Systematic Uncertainty in the Norwegian Economy.</i> | Haakon Vennemo, Michael Hoel and Henning Wahlquist |
| No 33 | Planprosesser, beregningsverktøy og bruk av nytte-kostnadsanalyser i vegsektoren. En sammenlikning av praksis i Norge og Sverige. <i>Planning, Analytic Tools and the Use of Cost-Benefit Analysis in the Transport Sector in Norway and Sweden.</i> | Morten Welde, Jonas Eliasson, James Odec and, Maria Börjesson |
| No 34 | Mulighetsrommet. En studie om konseptutredninger og konseptvalg <i>The Opportunity Space. A Study of Conceptual Appraisals and the Choice of Conceptual Solutions.</i> | Knut Samset, Bjørn Andersen and Kjell Austeng |
| No 35 | Statens prosjektmodell. Bedre kostnadsstyring. Erfaringer med de første investeringstiltakene som har vært gjennom ekstern kvalitetssikring | Knut Samset and Gro Holst Volden |
| No 36 | Investing for Impact. Lessons with the Norwegian State Project Model and the First Investment Projects that Have Been Subjected to External Quality Assurance | Knut Samset and Gro Holst Volden |
| No 37 | Bruk av karbonpriser i praktiske samfunnsøkonomiske analyser. En oversikt over praksis fra analyser av statlige investeringsprosjekter under KVVU-/KS1-ordningen. | Gro Holst Volden |

Concept report series

Paper version ISSN 0803-9763

Web version ISSN 0804-5585

Norwegian www.ntnu.no/concept/publikasjoner/rapportserie

English summary www.ntnu.edu/concept/publications/report-series

| Report | Title | Author |
|--------|---|---|
| | <i>Use of Carbon Prices in Cost-Benefit Analysis. Practices in Project Appraisals of Major Public Investment Projects under the Norwegian State Project Model</i> | |
| No 38 | Ikke-prissatte virkninger i samfunnsøkonomisk analyse. Praksis og erfaringer i statlige investeringsprosjekter <i>Non-Monetized Impacts in Economic Analysis. Practice and Lessons from Public Investment Projects</i> | Heidi Bull-Berg, Gro Holst Volden and Inger Lise Tyholt Grindvoll |
| No 39 | Lav prising – store valg. En studie av underestimering av kostnader i prosjekters tidligfase <i>Low estimates – high stakes. A study of underestimation of costs in projects' earliest phase</i> | Morten Welde, Knut Samset, Bjørn Andersen and Kjell Austeng |
| No 40 | Mot sin hensikt. Perverse insentiver – om offentlige investeringsprosjekter som ikke forplikter <i>Perverse incentives and counterproductive investments. Public funding without liabilities for the recipients</i> | Knut Samset, Gro Holst Volden, Morten Welde and Heidi Bull-Berg |
| No 41 | Transportmodeller på randen. En utforsking av NTM5-modellens anvendelsesområde <i>Transport models and extreme scenarios. A test of the NTM5 model</i> | Christian Steinsland and Lasse Fridstrøm |
| No 42 | Brukeravgifter i veisektoren <i>User fees in the road sector</i> | Kåre Petter Hagen and Karl Rolf Pedersen |
| No 43 | Norsk vegplanlegging: Hvilke hensyn styrer anbefalingene <i>Road Planning in Norway: What governs the selection of projects?</i> | Arvid Strand, Silvia Olsen, Merethe Dotterud Leiren and Askill Harkjerr Halse |
| No 44 | Ressursbruk i transportsektoren – noen mulige forbedringer <i>Resource allocation in the transport sector – some potential improvements</i> | James Odeck (ed.) and Morten Welde (ed.) |
| No 45 | Kommunale investeringsprosjekter. Prosjektmodeller og krav til beslutningsunderlag. <i>Municipal investment practices in Norway</i> | Morten Welde, Jostein Akسدal and Inger Lise Tyholt Grindvoll |
| No 46 | Styringsregimer for store offentlige prosjekter. En sammenliknende studie av prinsipper og praksis i seks land. <i>Governance schemes for major public investment projects: A comparative study of principles and practices in six countries</i> | Knut Samset, Gro Holst Volden, Nils Olsson and Eirik Vårdal Kvalheim |

Forskningsprogrammet Concept skal utvikle kunnskap som sikrer bedre ressursutnytting og effekt av store, statlige investeringer. Programmet driver følgeforskning knyttet til de største statlige investeringsprosjektene over en rekke år. En skal trekke erfaringer fra disse som kan bedre utformingen og kvalitetssikringen av nye investeringsprosjekter før de settes i gang.

Concept er lokalisert ved Norges teknisk- naturvitenskapelige universitet i Trondheim (NTNU), ved Fakultet for ingeniørvitenskap og teknologi. Programmet samarbeider med ledende norske og internasjonale fagmiljøer og universiteter, og er finansiert av Finansdepartementet.

Address:

The Concept Research Program
Høgskoleringen 7A
N-7491 NTNU
Trondheim
NORWAY

ISSN: 0803-9763 (paper version)

ISSN: 0804-5585 (web version)

ISBN: 978-82-93253-47-1 (paper version)

ISBN: 978-82-93253-48-8 (web version)

The Concept research program aims to develop know-how to help make more efficient use of resources and improve the effect of major public investments. The Program is designed to follow up on the largest public projects over a period of several years, and help improve design and quality assurance of future public projects before they are formally approved.

The program is based at The Norwegian University of Science and Technology (NTNU), Faculty of Engineering Science and Technology. It cooperates with key Norwegian and international professional institutions and universities, and is financed by the Norwegian Ministry of Finance.

