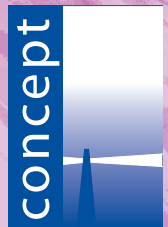


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The role of the do-nothing option in conceptual appraisals

Concept report no. 71



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English summary

The report looks at the treatment of the do-nothing option in conceptual project appraisals. This option is often not investigated as a selectable alternative but is only included as a basis for comparison. Furthermore, the analysis of the do-nothing option's consequences over the lifetime is not very transparent, and the uncertainty and option values are not highlighted. There is also great potential for improvement when it comes to identifying good do-minimum options. The do-nothing or do-minimum options are rarely recommended in the project appraisals but often end up being "selected" anyway because the preferred measure was too expensive.

This is an empirical study on the role of the do-nothing option in project appraisals of large government investment projects, an issue many analysts and clients need help with. Do-nothing represents the alternative to investment. It acts as a reference against which the impacts from potential investment should be measured, while it should also be a realistic and viable option. Often a so-called do-minimum option is included in the appraisals but not used as a reference.

This study aims to develop more knowledge about how the do-nothing/do-minimum options are designed and provide advice on how they should be designed. Advice on this issue should be relevant to practitioners and decision-makers. The topic is also interesting to researchers as very little empirical work has been undertaken.

The study reviews conceptual project appraisal reports, the corresponding external quality assurance of the choice of concept (QA1), and interviews with informants from ministries, government agencies, and consultancies. The general research topics have been:

- Content and function of the do-nothing option
- Realism and sustainability of the do-nothing option
- Presentation and analysis of the do-nothing option
- Popularity of the do-nothing option

The report starts by providing some theoretical reflections on the role of the do-nothing option in economic appraisals. Which assumptions are made and what is used as a reference when making comparisons can significantly impact the results of the analyses. This applies not in the least to assumptions about operations and maintenance of existing infrastructure, societal development at large, and the effects of adjacent projects and other public investments. By opting for a reference alternative with higher costs and benefits, the investment alternatives will seem preferable. Likewise, a reference alternative with constant benefits (at the current level) or increasing benefits (e.g., due to technological or societal changes) and modest cost will weaken the net present value of investment options.

Despite the importance of the do-nothing option in cost-benefit analysis in project appraisals, it is hardly addressed in the research literature. An extensive literature search has uncovered no studies on this topic. Some studies have found that the design of the do-nothing option is an essential source of uncertainty in cost-benefit analysis and that erroneous (pessimistic) estimates about the do-nothing option can represent a source of bias. Previous Norwegian studies have shown that the do-nothing option is rarely selected, neither in the conceptual project appraisal phase nor later in the pre-project phase, despite the high share of the projects selected for execution do not have a positive return on investment.

There is an extensive set of guidelines for cost-benefit analysis in Norway and other countries, especially within the transport sector. Some also cover the do-nothing option. However, some of them could be more specific about how to make projections about how the quality or benefits will evolve without investing.

The data material for the study documented 112 projects subjected to conceptual appraisal, representing almost the entire population of Norwegian projects that have undergone conceptual appraisal. In addition, we have conducted fifteen interviews with forty-one persons from four ministries, five government agencies, and nine consulting companies with a frame agreement with the Ministry of Finance to conduct external quality assurance of government projects. Despite some methodological limitations, this data material provides valuable insights into the do-nothing option as a phenomenon.

The findings from the study can be summarised as follows.

The first research topic dealt with the content and function of the do-nothing option in the conceptual appraisal reports:

- **The term do-nothing option is controversial:** Most ministries and agencies use the term do-nothing, zero concept or similar versions. If a do-minimum option is also included, the term zero-plus option is often used. Many informants criticise the term do-nothing option, and some argue that reference alternative is better.
- **The content and design of the do-nothing option vary and can be unclear:** There is significant variation in the extent of reinvestment and upgrades included in the do-nothing option, from nothing to substantial.
- **Even more significant variation in the design of do-minimum options:** Only about a third of the appraisals include a do-minimum option or other small investment measures. The variation in the design of these is even more significant than for the do-nothing option. As a result, there is significant uncertainty about how far to go in solving the problem or ensuring sufficient functionality.
- **The so-called four-step principle is not used according to intentions.** The four-step principle is a systematic approach to investigating other ways of solving the problem by looking for less extensive solutions than investments. In reality, we rarely see that such means (such as pricing mechanisms or regulation changes) are carried through to the concept analysis.
- **The quality assurers criticise the do-nothing option but still recommend it:** The quality assurers often have comments about how the do-nothing option has been designed, and we see cases where the QA1 report reduces the scope of the do-nothing option (to avoid or carrying investment cost) and expanding it (to make it more viable). However, they often recommend the same option as the appraisal report. The quality assurers often ask for less extensive options (do-minimum) and better do-nothing options.
- **The purpose of the do-nothing option varies:** Most appraisals treat the do-nothing option as a reference – a baseline against which impacts are measured. Only a few appraisals treat it as a viable option in itself. The thinking among the agencies seems to be that the initial problem analysis has already shown that the do-nothing option is not

acceptable, and it is therefore included in the conceptual appraisal only as an “artificial” alternative.

Regarding the question of whether the do-nothing option is seen as a realistic and viable alternative by the agencies and quality assurers, we find that:

- **The relevance of the do-nothing option depends on whether the situation can be characterised as a problem or an opportunity:** In the cases where the conceptual appraisal starts from a problem, the do-nothing option can easily be seen as (at least by the actors within the sector itself) as unacceptable. Other times investment is an opportunity for profitability and growth, but with the do-nothing option as a realistic alternative. A common observation is, however, that problems and opportunities are mashed together without any prioritisation.
- **The proper do-nothing option has not been designed to be a realistic alternative:** The do-nothing option has relatively poor support among those carrying out conceptual appraisals, as they rarely meet various ambitious goals or stringent requirements. The quality assurers have differing views and believe more could be done to make the do-nothing option more realistic. This implies that this is a part of the appraisal that could be vulnerable to manipulation.
- **The lifespan of the do-nothing option is not explicitly discussed:** Many conceptual appraisals perceive the do-nothing option as having a shorter lifespan of benefits than the investment alternatives. But very few explicitly discuss how long it is possible to live with the current situation, and the do-nothing option is rarely explicitly considered a postponement alternative.
- **The requirement to only consider sanctioned policies is loyally adhered to but can be perceived as making the do-nothing option less realistic:** Most, but not all, conceptual appraisals loyally accept that only projects that have been decided for investment should be included in the analyses. But it has been pointed out that this can create a less good view of the future. Surprisingly few undertake sensitivity analyses that take non-sanctioned projects into account.
- **“Sanctioned policy” can conflict with demand prognoses:** Policies that have been decided upon, e.g., related to climate and environment, can clash with projections about the future. In addition,

ambitious goals might require investments, and it can be demanding to conduct realistic conceptual appraisals unless these are considered.

We have also looked into how the do-nothing option is presented and assessed in the analyses:

- **The conceptual appraisal mandate can give important signals about thoroughly investigating the do-nothing option:** Only about one-fourth of the mandates specify that the do-nothing option should be included in the analyses or whether do-minimum alternatives should be developed. However, other mandates go pretty far in indicating that the do-nothing option should be chosen.
- **The do-nothing option is described less thoroughly than the investment options, and it varies where it is presented in the conceptual appraisal document:** The do-nothing option is seldom given thoroughly anywhere in the conceptual appraisal reports and is only to a limited extent quantified. In addition, the problem chapter focuses mainly on the current situation and not on future development.
- **The evaluation of the do-nothing option compared with the investment alternatives is not very transparent:** The description of the do-nothing option is generally relatively brief compared with the investment alternatives. Where the analysis is undertaken using differential assessments, the do-nothing option tends to “disappear”. It is seen as demanding to quantify the development of the benefits of the do-nothing option, but the cost of this option is also dealt with rather summarily.
- **Uncertainty and real options are only to a limited extent discussed for the do-nothing option:** Only about half of the conceptual appraisal reports discuss cost estimate future demand uncertainty. In addition, very few discuss the real option value of the do-nothing option as a delayed investment option.

Finally, we have looked into whether the do-nothing option is recommended or even chosen, i.e., the popularity of the do-nothing option:

- **The do-nothing option is rarely recommended in the conceptual appraisal reports, but far more often in the QA1 reports:** Only two of the conceptual appraisal reports (2%) recommend the do-nothing or a do-minimum option. Even when the do-nothing option

is investigated as thoroughly as the investment options, it is usually quickly deemed infeasible. The quality assessors recommend the do-nothing option in more cases (about 24%).

- **The do-nothing option is nonetheless “chosen”:** Even if the agency recommends an investment alternative and the government sanctions it, this does not automatically mean it will be implemented. A large share of the projects appears to have been put on hold indefinitely, probably due to significant cost increases after the QA1 stage. The current, no-investment situation seems perhaps to be viable after all.

In short, this study documents that conceptual appraisals are characterised by diverse practices, lack of transparency, and in almost every case, end up recommending an investment alternative. Both the do-minimum and other low-cost options garner much attention and are rarely assessed positively in appraisals. A practice seems to have developed where the question is not whether to invest but which alternative to recommend. This is not in line with the intentions of the state project model.

Therefore, a different practice for dealing with the do-nothing option is needed. We thus recommend the following:

1. Limit the number of conceptual appraisals. The ministries must act as gatekeepers and refrain from initiating resource-consuming project appraisals, which can also give different stakeholders unrealistic expectations that extensive state-funded investment is forthcoming.
2. Following the above, we also recommend better coordination of which and the number of initiated appraisals (to establish a portfolio perspective).
3. The mandate for appraisal should make it clear that the purpose of the appraisal is to make a recommendation on whether to invest. This way, it can signal the importance of spending time and resources on the do-nothing option and assembling an appraisal team that represents the sector interests and the societal perspective.
4. It should be a requirement to include good do-minimum options. These are alternatives where the most critical problem is solved (but without this becoming a lever for meeting a long list of requirements and wishes).
5. More focus on flexibility in investment decisions. This applies in particular to 1) where planned, non-committed projects can affect value for money

and 2) where technological development can affect the choice of solution, costs and benefits. The project appraisal should always ask what the right time for investment is and what potential gains can be achieved by postponing the decision.

6. Better use of the four-step principle. We recommend that the principle be mandatory to identify better, simpler solutions that do not require significant investments.
7. Accept that the do-nothing option may entail diminishing social benefits. Planners seem confused about which benefit and lifespan the do-nothing option should be based on. If economic forecasts indicate reduced benefits, that is the situation that the agency must adapt to in the absence of investment.
8. No problem is worth solving at any cost. A stronger emphasis on value for money can counter possible negative aspects of problem-oriented planning.
9. The QAs should take a more critical look at the do-nothing option and, if necessary, propose a more realistic do-nothing or do-minimum option.
10. The consequence of selecting the do-nothing option must be more transparent. We recommend that the consequence of the do-nothing option be more transparent than the current situation. Also, the results of any do-minimum options should be evaluated more seriously than current practice, where we get the impression that the do-minimum option is treated with pessimism bias.

At the end of the report, we point to some areas where the results from this study can be pursued in further research:

- More thorough analysis of projects where the do-nothing option, in reality, has been chosen.
- The consequences of choosing the do-nothing option: Projects on hold, delayed, or stopped can represent an opportunity for investigating whether the results of selecting the do-nothing option are as outlined in the conceptual appraisals.
- Sector-specific studies: It is possible to go into more detail about this topic by undertaking studies of specific sectors, such as roads, rail, and buildings.
- The importance of different presumptions made about the do-nothing option: The effects of other presumptions about the do-

nothing option can be investigated through more data from both planned and executed projects.

- The design of good do-nothing options: Better knowledge about the design of good do-nothing options will be helpful for future appraisals.

Increased knowledge has little value unless it leads to changed practice. Therefore, we recommend that the Ministry of Finance develop more precise guidance. After that, the responsible departments must ensure that those conducting the conceptual appraisals follow up on this in practice.

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Report	Title	Author (-s)
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 and 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 prosjekter <i>Up-front Conjecture of Anticipated Effects of Major Public Investment Projects</i>	Nils Olsson
No 8	Realopsjoner og fleksibilitet i store offentlige investeringsprosjekt	Kjell Arne Brekke

Report	Title	Author (-s)
	<i>Real Options and Flexibility in Major Public Investment Projects</i>	
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 Analysis</i>	Kjell Austeng, Vibeke Binz and Frode Drevland
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. Defence Aquisitions</i>	Erik N. Warberg
No 17	Beslutninger på svakt informasjonsgrunnlag. Tilnærminger og utfordringer i prosjekters tidlige fase	Kjell Sunnevåg (red.)

Report	Title	Author (-s)
	<i>Decisions Based on Scant Information. Challenges and Tools During the Front-end Phases of Projects</i>	
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 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	Erik Whist and Tom Christensen

Report	Title	Author (-s)
	<i>Political Control, Local Rationality and Complex Coalitions. Focus on the Front-End of Large Public Investment Projects</i>	
No 27	Verdsetting av fremtiden. Tidshorisont 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 kvalitetssikring 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 investeringers 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 Odeck and Maria Börjesson

Report	Title	Author (-s)
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. <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>	Gro Holst Volden
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 incentiver – om offentlige investerings-prosjekter 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	Christian Steinsland and Lasse Fridstrøm

Report	Title	Author (-s)
	<i>Transport models and extreme scenarios. A test of the NTM5 model</i>	
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 Aksdal 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 F. Samsset, Gro Holst Volden, Nils Olsson and Eirik Vårdal Kvalheim
No 47	Governance Schemes for Major Public Investment Projects. A comparative study of principles and practices in six countries.	Knut F. Samsset, Gro Holst Volden, Nils Olsson and Eirik Vårdal Kvalheim
No 48	Investeringsprosjekter og miljøkonsekvenser. En antologi med bidrag fra 16 forskere. <i>Environmental Impact of Large Investment Projects. An Anthology by 16 Norwegian Experts.</i>	Kåre P. Hagen and Gro Holst Volden
No 49	Finansiering av vegprosjekter med bompenger. Behandling av og konsekvenser av bompenger i samfunnsøkonomiske analyser. <i>Financing road projects with tolls. The treatment of and consequences of tolls in cost benefit analyses.</i>	Morten Welde, Svein Bråthen, Jens Rekdal and Wei Zhang
No 50	Prosjektmodeller og prosjekteierstyring i statlige virksomheter.	Bjørn Andersen, Eirik Vårdal Kvalheim and Gro Holst Volden

Report	Title	Author (-s)
	<i>Project governance and the use of project models in public agencies and line ministries in Norway.</i>	
No 51	Kostnadskontroll i store statlige investeringer underlagt ordningen med ekstern kvalitetssikring. <i>Cost performance in government investment projects that have been subjected to external quality assurance.</i>	Morten Welde
No 52	Statlige investeringer under lupen. Erfaring med evaluering av de 20 første KS-prosjektene. <i>A Close-up on Public Investment Cases. Lessons from Ex-post Evaluations of 20 Major Norwegian Projects</i>	Gro Holst Volden and Knut Samset
No 53	Fremsynsmetoder <i>Foresight methods</i>	Tore Sager
No 54	Neglected and underestimated impacts of transport investments	Petter Næss, Gro Holst Volden, James Odeck and Tim Richardson
No 55	Kostnadsstyring i entreprisekontrakter <i>Cost performance in construction contracts</i>	Morten Welde, Roy Endre Dahl, Olav Torp and Torbjørn Aass
No 56	Erfaringer fra styring og gjennomføring av store statlige IKT-prosjekter <i>Experiences from governance and implementation of major public ICT projects</i>	Håkon Finne
No 57	Effektivitet og produktivitet i norsk veibygging 2007-2016 <i>Efficiency and productivity in Norwegian road construction 2007-2016</i>	Kenneth Løvold Rødseth, Rasmus Bøgh Holmen, Finn R. Førsum and Sverre A.C. Kittelsen
No 58	Mandater for konseptvalgutredninger. En gjennomgang av praksis. <i>The Terms of Reference Document for Conceptual Appraisal. A Review of Current Practice.</i>	Knut Samset and Morten Welde
No 59	Estimering av kostnader i store statlige prosjekter: Hvor gode er estimatene og usikkerhetsanalysene i KS2-rapportene?	Morten Welde, Magne Jørgensen, Per Fridtjof Larsen and Torleif Halkjelsvik

Report	Title	Author (-s)
	<i>Estimating costs in large government investment projects. How good are the estimates and uncertainty analyses in the QA2-reports?</i>	
No 60	Noen krevende tema i anvendte samfunnsøkonomiske analyser. En undersøkelse av praksis i Statens prosjektmodell <i>Salient topics in cost-benefit analyses of major public projects in Norway</i>	Haakon Vennemo, Jens Furuholmen, Orvika Rosnes and Leonid Andreev
No 61	Samspill i bygg- og anleggsbransjen <i>Partnering in construction projects</i>	Svein Bråthen, Maria Laingen, Paul Torgersen and Merethe Kristin Woldseth
No 62	Vegprosjekter, verdiskaping og lokale mål <i>Road projects and local economic impacts</i>	Morten Welde, Eivind Tveter and Anne Gudrun Mork
No. 63	Betydningen av lønnsomhet ved valg av vegtrasé i kommunedelplanprosessen <i>The importance of value for money when choosing a road route in the municipal sub-plan process</i>	Ingri Bukkestein and Ole Henning Nyhus
No. 64	Hvordan lykkes med digitalisering? En undersøkelse av nyttestyring av IT-prosjekter i offentlig sektor <i>How to succeed with digitalization? A study of benefit management in public IT projects</i>	Helene Berg, Kjetil Holgeid, Magne Jørgensen and Gro Holst Volden
No. 65	Styring av prosjektporteføljer i offentlig sektor <i>Management of project portfolios in the public sector</i>	Ingri Bukkestein, Gro Holst Volden and Bjørn Andersen
No. 66	Endringer i beregningsforutsetninger og betydning for samfunnsøkonomisk lønnsomhet i samferdselsprosjekter <i>Changes in cost-benefit analysis assumptions and their impact on net benefits of transport investments</i>	Askill H. Halse, Paal B. Wangsness and Harald Minken

Report	Title	Author (-s)
No. 67	Til Dovre faller? En studie av faktisk levetid for veg og jernbane <i>The service life of transport infrastructure: An ex-post analysis of rail and roads</i>	Eivind Tveter, Tore Tomasgard and Maria Laingen
No. 68	Stanse svake prosjektforslag oftere og tidligere? Gjennomgang av internasjonal litteratur <i>Stopping weak project proposals more frequently and earlier? A review of international literature</i>	Tore Sager
No. 69	Til rett tid? En undersøkelse av forsinkelser i gjennomføringsfasen av store statlige prosjekter <i>Over time or on time? A study of delays in large government investment projects</i>	Morten Welde and Ingrid Bukkestein
No. 70	Hva kjennetegner samfunnsøkonomisk lønnsomme vegprosjekter? En analyse basert på data fra nasjonale transportplaner i Norge og Sverige. <i>What characterises road projects with a positive value for money? A study based on data from national transport plans in Norway and Sweden</i>	James Odeck, Maria Börjesson, Johanna Jussila Hammes, Gro Holst Volden and Morten Welde
No. 71	Nullalternativets rolle i konseptvalgutredninger <i>The role of the do-nothing option in conceptual appraisals</i>	Gro Holst Volden, Bjørn Andersen, Atle Engebø and Morten Welde

Concept report no. 71

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