



Concept Symposium 2018

Governing Megaprojects – Why, What and How

The Ministry as Project Owner – Value for money or Higher risk?

On the 22th of July 2011, 77 people were killed in the worst act of terror ever committed on Norwegian ground. 13 months later the report from the investigating commission became public. One of their 31 recommendations, was to build the Norwegian National Response Center (NNRC). 15 days after the report was presented the preceding Prime Minister announced that the Government had decided to build the NNRC in Alna, Oslo. The Parliament was informed that the NNRC should be operative by the end of 2017. In 2012 the Ministry appointed the Police Directorate as project owner. According to procedures for governmental construction projects Statsbygg was appointed consultant and developer. It was decided that planning would start without any prior concept evaluation (KVU). In 2013 it became clear that the lot made available at Alna represented some potentially irreversible problems. New estimates revealed that construction of the NNRC would be considerably more expensive than first projected, even without the most needed training facilities. In 2014 the new acting Government decided to restart the project. This time with a concept evaluation and the Quality assurance part 1 (KS1). The consultancy firm Metier were given the task to lead the team responsible for project planning in the initial engineering phase, but with the Ministry as project owner. Conclusions from this phase were positive with substantial cost savings and a much more functional NNRC as important results. In December 2017 plans for relocating the NNRC were approved by the Parliament, and in March 2018 the construction work on the new premises at Taraldrud, nearby Oslo, started.

What lessons can be learned? Why did we spend three years planning for the NNRC at Alna before the project was stopped? Why has the initial phase for Taraldrud been a success? Why did the Ministry itself take the role as the project owner, and why was it decided to replace Statsbygg with Metier? Will this model expose the Minister and Prime Minister to more criticism than normally expected if something goes wrong?



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The Concept Symposia on Project Governance

The Norwegian Ministry of Finance and the Concept Research Program hosts every second year a symposium on project Governance. Project governance, in brief, is concerned about investments and their outcome and long-term effects. In view of the problem at hand, the aim is to ensure that the best conceptual solution is chosen, that resources are used efficiently and anticipated effects realized. Resource persons from ministries, governmental agencies, academia, international organizations, and industry are invited. In order to facilitate professional exchange and direct communication between participants, the number of individuals is restricted. The aim is to initiate further international cooperation and research on important issues related to project governance.

<https://www.ntnu.edu/concept/concept-symposium>

The National police response centre

The Ministry as Project owner – More value for money or higher risk?

Ladies and gentlemen – a very good morning to you all

Let me first of all thank the organizers for giving me this opportunity to share with you my reflections about a very important project – The National police response centre. I will tell you why I think this project for some time could be seen as a complete failure, and why I now think this can be classified as a success story.

I will in this presentation start with a brief summing up of the context and the history. I will spend most of my time on how we have organized the project and why we did it the way we did. I will end my presentation with a summing up of what I think we can learn from this project.

On the 22th of July 2011, 77 people were killed in the worst act of terror ever committed in Norway. 13 months later the report from the investigating commission became public. One of their 31 recommendations, was to build the National Police Response Center (NPRC). 15 days after the report was presented the Prime Minister Jens Stoltenberg announced that the Government had decided to build the NPRC in Alna, Oslo. The Parliament was informed that the NPRC should be operative by the end of 2017. In 2012 the Ministry appointed the Police Directorate as project owner. According to procedures for governmental construction projects, Statsbygg was appointed consultant and developer. It was decided that planning would start without any prior concept evaluation (KVU).

In 2013 it became clear that the building plot made available at Alna was far from perfect. New estimates revealed that construction of the NPRC would be considerably more expensive than first projected, even without some of the most needed training facilities. In 2014 the Government headed by Prime Minister Erna Solberg, which came into power in October 2013, decided to restart the project. This time with a concept evaluation and the Quality Assurance part 1 (QA1). The consultancy firm Metier were given the task to lead the team responsible for project planning in the initial engineering phase, with the Ministry as project owner. Conclusions from this phase were positive with substantial cost savings and a much more functional NPRC as important results. In December 2017 plans for the NPRC were approved by the Parliament, and in March 2018 the construction work on the new premises at Taraldrud, near Oslo, started.

What lessons can be learned? Why did we spend three years planning for the NPRC at Alna before the project was stopped? Why has the initial phase for Taraldrud been a success? Why did the Ministry itself take the role as the project owner, and why was it decided to replace Statsbygg with private consultants? Will this model expose the Minister and Prime Minister to more criticism if something goes wrong?

Alna – what went wrong?

The goal of the NPRC is to enhance police capacity and contribute to crisis mitigation, prevention, preparedness, and operational crisis management. There are lots of ideas on how this could be achieved, but the Alna project didn't – due to the lack of a concept evaluation phase - have a defined or coherent business case: It wasn't clear what the project must include, what it should include, what it could include or what it should not include – and we didn't know what a reasonable budget would be.

In a research paper from UiO, the scientists (Christensen, Lægreid and Rykkja 2017) described the decision-making process as marked by a lack of rational calculation, influenced by external shocks, focusing events and windows of opportunities. This led to changing expectations, shifts in attention and opportunities for new agenda-setting. In short: An ever changing project. On this point, I agree with them.

Choosing a building plot before deciding on what you want to build, is obviously problematic. The plot at Alna is one tenth the size of Taraldrud, and had several other limitations as well. Thus it was more a question of what could be achieved, not what we wanted to achieve. An example is training facilities.

I don't know if every possible mistake was made, but the Alna project touched most of them. Luckily we also learned. The most important thing we learned was that urgency undermined the rationality of the process, and this in turn led to a delayed decision-making process.

The political setting – why The Ministry took charge of the project

There is usually an idea that there should be a clear distance between the minister and a project. If a project goes wrong, the minister doesn't get too much of the blame.

After Alna it was clear that we had to make a lot of changes. It would be unacceptable if this project failed again, and the minister would be blamed if it did – no matter what distance he had to the project. As my colleague from the Ministry of Finance has already said, the average cost increase from QA1 to QA2 is a huge problem – and we needed to make sure it didn't happen here. We therefore decided that the ministry should take charge of the project from the basic engineering phase until the NPRC is built. In 2016 I took on the role as the project sponsor, which means that I have the overall accountability for the project and its business case. I believe the best way to protect the minister is to deliver a project with the expected outcome, within a pre defined cost and within a pre defined time frame. Thus: Political risk is minimized if the foundation for project success is maximized. This implies that you need to know how success can be measured, before you start the project.

Main characteristics of the Taraldrud project

For the Alna project, it was a case of starting a project with only a vague conceptual idea of what it should include. Something needed to be done, and it needed to be done without delay. The business case wasn't really defined until a year or so into the pre-engineering phase. Thus; the most important difference from the Alna project is that the business case for Taraldrud has been clearly defined from the start; Cost, scope, quality and time. Every step in the Norwegian project model has been followed, and no corners have been cut. Even though the NPRC-name has been kept, the project is completely different and the business case is now much stronger.

I established a strong organization to support me as the project sponsor. Two people at the ministry have worked full time with the project and I also hired two external expert consultants. This have ensured that I had at my disposal the necessary capacity and competence/knowledge.

We have set high performance standards for the project, and – as the QA2 showed – we have delivered on them so far. The initial engineering phase

has been much shorter and cheaper than norm, yet the quality of the work done was high, and we have controlled the cost, time and content.

From the start we decided to keep things simple: Our goal is to maximize public security within a set cost. We're not trying to win design awards, or achieve anything more than compliance of environmental standards and such.

After the concept evaluation phase, it was decided that the project should follow the "design-to-cost" principle, within a set cost of 2,5 billion NOK (2015 value). It is, however, important to note that the users are satisfied with the current scope, and they have been very constructive in helping us optimize the project (finding potential cost savings).

We used the P50 estimate from the QA1 to set the cost, and have decided on a policy where the estimated P85 cost should be at least 50 million NOK lower than the set cost of 2,5 billion NOK (2015 value).

Project cost management

During the initial engineering phase we have produced a total of 8 cost estimates, and we continually optimized the project in accordance with these estimates. We will continue with regular estimates to keep track on cost development. The quality of the estimates have been very good, and the project manager and his team have been excellent in planning for the unexpected. This gives me as the project sponsor the tools I need to ensure that the project delivers the agreed business value. The main reason we chose design-to-cost as the guiding principle for project development, was to ensure we could control the decision making process after the QA2 stage gate. We strongly believed that the project would have the support of the Parliament if cost was kept under control, thus cost control was also a way to control the time frame.

Cost, time and quality are often seen as conflicting goals, and that is obviously true if you suddenly realize you need to speed up production to meet a specific date. With well thought out production planning from the start, you may however see that cost and time can go hand in hand. In this project a shorter and more compact time frame, with efficient use of project resources, has also reduced cost. You often see governmental projects put on ice for maybe half a year or so, awaiting approval from parliament. I made a business decision – with the support of the minister - to keep the

core of the organization active from the end of the pre-engineering phase to the start of the building project. There was obviously a calculated risk that the project could have been put on ice for a year or longer, but weighing the costs and benefits it was clear to me it was the right decision.

Further: Our experience is also that design-to-cost does not mean poor quality. We now have a project with all the functionality that the police need. This is possible due to the continues focus on optimization of cost and benefits; where in particular reducing unnecessary area in the main building has been a key measure.

We have used a partnership contract model (samspillskontrakt), with early involvement of the contractor Skanska. The main purpose was to gain access to the contractor's expertise, reducing project cost and maximizing project benefits, without changing the nature of the project. As the possibility for change is greater in the earlier phases, it was very beneficial to get Skanska involved in the basic engineering phase.

The entire organization, including the minister, had the same ambitions and priorities (the most important goals and expected outcome). We have been fortunate to have constructive users (different levels of the police); they wanted the project, and they were prepared to prioritize their wants and needs within the set cost. In short the entire organization had the same mindset and worked together to protect and improve the business case. We've had shared project facilities for the project team, and this is something I think has been essential to promote cooperation and a shared culture.

We designed a single purpose organization for the project. The key advantage is the freedom to hire people based on their qualifications and suitability to deliver success. It is also easier to design and manage culture within a single purpose organization – when there is no turf to protect.

For three or four key positions we tried to identify the best possible candidates in the country, and we succeeded in getting them. This is a high profile project, and lots of companies and people wanted to be a part of our organization. After getting the people we wanted, we focused on trust and autonomy, were we didn't try to control more than necessary. When you have the right people, you have to trust them.

We have had a "Whole of government approach" were we got a lot of assistance from both the Ministry of Finance and the Ministry of Local

Government and Modernisation. Former assistant director general Peder Berg, from the Ministry of Finance, who most of you know, has been essential to the success so far. At the start he helped us with the governance structure and the steering philosophy, he helped us identify a suitable project manager and he helped us get candidates for other key positions. The Ministry of Local Government and Modernisation helped with the regional planning permissions and the zoning plan. This is normally done as a municipal planning process, but due to the project's national importance, it was decided that central government planning was necessary.

The accountability in the project has been clear: The Steering group, led by me as the designated project sponsor, has the overall accountability for the project. As a link between the sponsor and the project manager, we have had a day-to-day project owner – accountable only to me as the sponsor. The purpose was to support the project manager, ensure efficient decision making, resolve conflicts, remove obstacles and protect the business case. The steering group has a joint responsibility for quality assurance of the information decisions are based on, ensuring that the business needs are valid and correctly prioritized, that the project is properly managed and under control. In short: Overseeing that the overall quality of the project is high. As we have few management layers we have also enabled efficient decision making. It should also be said that we have had an excellent project manager who has provided the Steering group with the right information at the right time, enabling us to make informed decisions.

Quality insurance – quality improvement

We always seek to optimize the project, and we try to learn from other projects. We have identified lots of projects we have visited, had meetings with or in other ways learned from.

Every idea can be refined, and there is always something you can learn from other project or someone with another perspective. With this in mind we have had extensive use of review panels where we have invited experts to presentations and discussions.

We have adapted the general model for quality assurance to our specific needs. Between the QA1 and the QA2 we had two specialised QA stage gates, one deciding where the NPRC should be built, and one where we decided on the best contract model.

So, what did we achieve?

Cost estimates from the QA2 were 15 pct lower than in the QA1. This compared to an average increase of 60 pct in comparable projects.

The pre-engineering phase, measured from QA1 to QA2, was 2 years. The average for comparable projects is 4 years, and it has never been done in less than 3 years before.

Due to the contract model and the bridging phase between the QA2 and the start of the building project, we will also realize the project much faster than normal. If things go according to plan, it will take 3 years from QA2 to the date Skanska gives me the keys to the NPRC.

This has been done without reducing the functional scope of the project.

Summing up

- First of all, you need a well defined business case, with a clear definition of success
- The project owner must have both competence and capacity to handle a project like this
- You need some distance between the decision makers and the users (especially for projects that are not financed within the ordinary budgets)
- You need a competent project management who understands what information the project owner needs and when it is needed
- All participants must share the same ideas and values and work together as one team
- The users must embrace “Design to cost”
- You need to regularly update your cost estimates
- You must learn from your own and others mistakes, and identify success stories you should make your own
- Challenge yourself; get outside opinion on your work
- Time is important, but good planning takes time, can save time and is essential in controlling costs.
- Whole of government approach is needed

Thank you



Norwegian Ministry of
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The Ministry as project owner – Value for money or higher risk?

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The National Police Response Center (NPRC)

30 minutes on:

- History and context – from Alna (2012-15) to Taraldrud (2015-18)
- Restart in 2015 – Accountability and organization
- What did we learn?

Without warning





The National Police Responce Center (NPRC)

- 22th of July 2011
- 13th of August 2012 – Commission report
- 28th of August 2012 – PM announce Alna as the site
- Should be established by the end of 2017

The National Police Response Center (NPRC)

- Decisions September 2012:
 - The Police Directorate as project owner
 - Statsbygg consultant and developer
 - Planning should start without any prior concept evaluation

The four user groups



Delta-force



Bomb-group

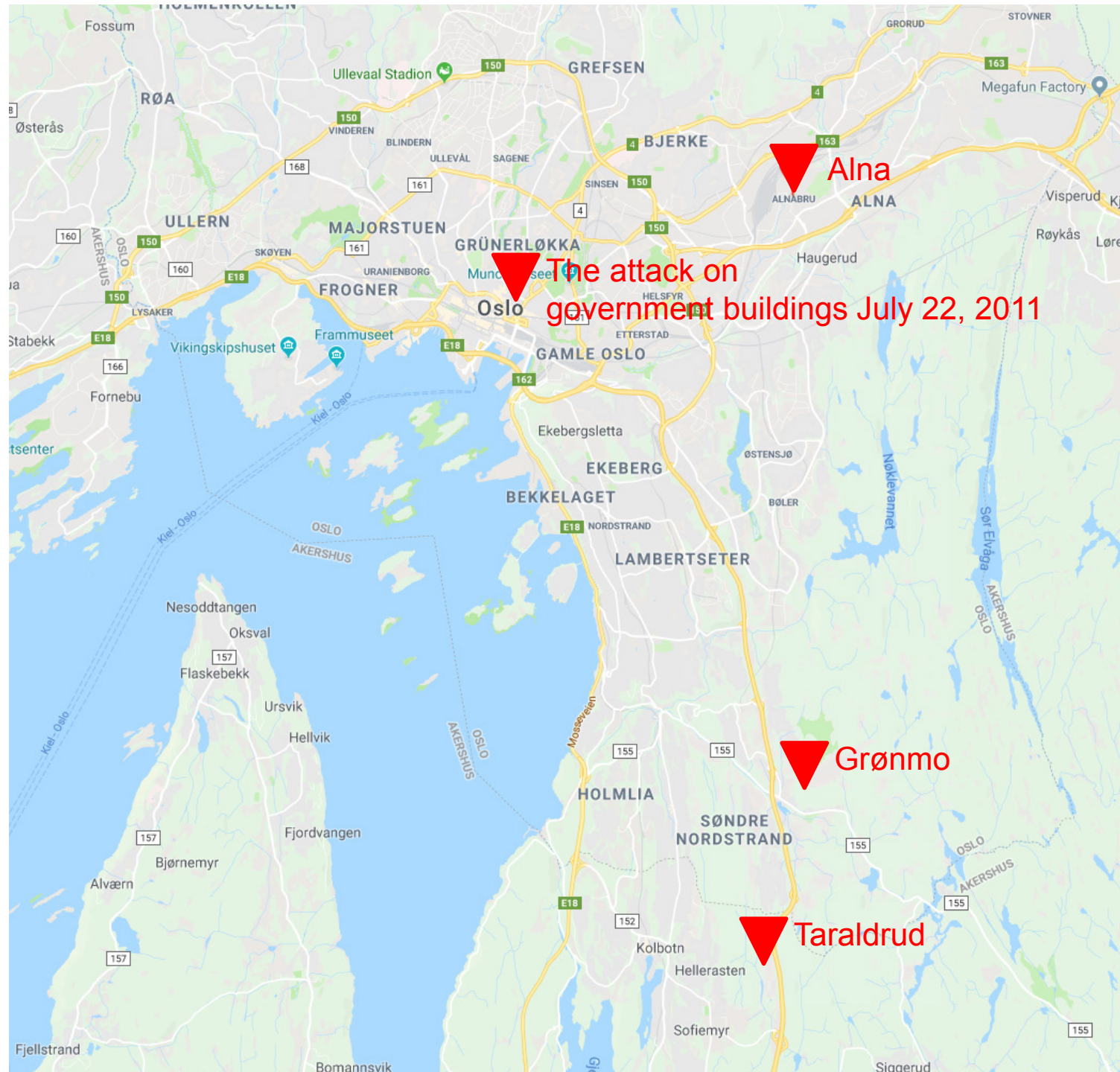


Crisis & hostage negotiators



Helicopter

The plots



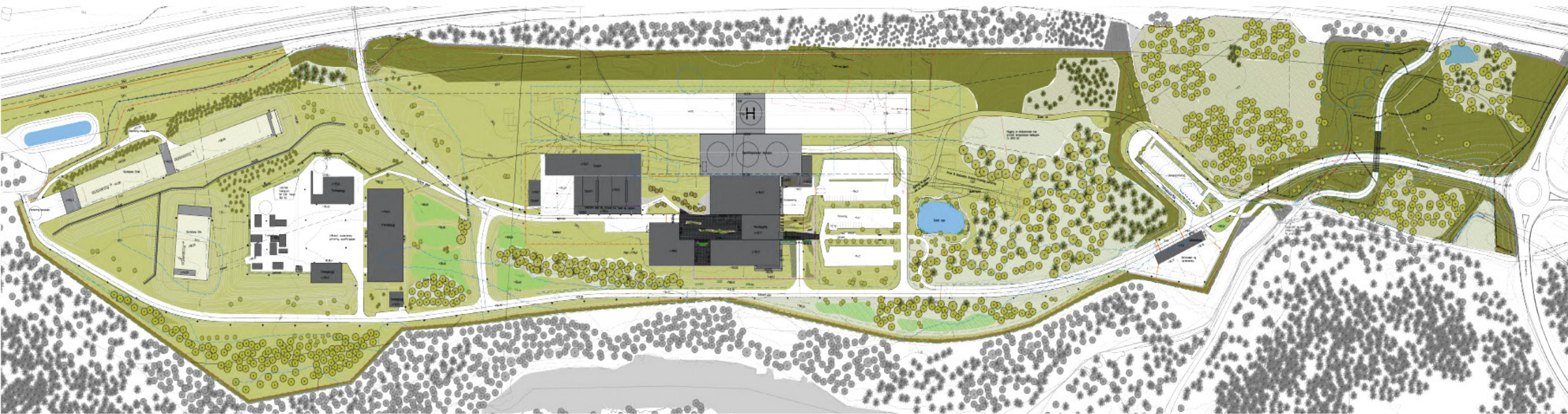
Alna process: What the scientists said

Christensen, Lægereid and Rykkja (2017):

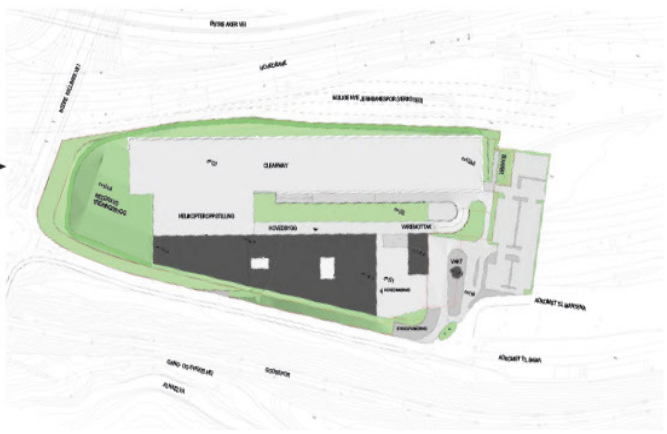
- The decision making process marked by a lack of rational calculation
- Influenced by external shocks, focusing events and windows of opportunities.
- Which led to changing expectations, shifts in attention and opportunities for new agenda setting
- In short: An ever changing project

Alna 2012-15: What went wrong?

- We lacked a defined and coherent business case
 - What the project *must* include
 - What it *should* include
 - What it *could* include
 - What it *should not* include
- We did not know what a reasonable budget would be (estimates ranging from 1 to 4,5 billion NOK)
- Premature choice of plot



TARALDRUD ↗
ALNABRU →



The National Police Response Center (NPRC)

- Decisions October 2015 - restart the project:
 - Design to cost as a steering philosophy
 - The Ministry of Justice and Public Security as project owner
 - Metier consultant and developer
 - The Police Directorate (POD) and the Oslo Police District (OPD) represents the users

Questions raised

- Why did we spend 3 years with Alna?
- Why did the Ministry take the role as project owner in 2015?
- Why was Statsbygg replaced by Metier in 2015?
- Will this model expose the Minister of Justice and the PM to more criticism if something goes wrong?

Alna – learn from your mistakes

- Define how much you (and the politicians) are willing to pay – and make sure you control cost
- Have clear cut priorities – time, scope and cost
- Urgency undermined the rationality, which led to delayed decision making process

The redefined business case – cheaper and better

- Redefine cost, scope, quality and time
- Much higher flexibility for future development
- Facilities for more training and higher quality training
- Quicker response due to training on site
- Set cost

The Ministry as the project owner

- Starting point: Don't do it. Keep distance.
- After Alna: If things goes wrong – the Minister will be blamed anyhow
- Different police units are the users – They should not be in charge of the project
- The best way to protect the Minister is to deliver a project with the expected output, within a predefined cost and within the predifined time

The Taraldrud project 2015-18 - Organisation

- A single purpose *organisation* – get the best people
- Accountability and decision structure – no duality
- Everybody must share the same ambitions and priorities
- The partnership *contract model* (samspillskontrakt) with the contractor Skanska
 - Gain access to the contractor's expertise
 - Reduce project costs and maximize project benefits

The Taraldrud project-model

- Priority1: Cost, 2: Quality, 3: Time
- «Design to cost»: Maximize public security within a set cost
- Follow standard procedure, cut no corners
- Regularly new cost estimates: So far 8 cost estimates
- P85 shall, at any time, be at least 50 million lower than set costs

The Taraldrud project

- The «Whole of Government approach»
 - Support from Ministry of Finance
 - Support from Ministry of Local Government and Modernisation
- The accountability of the project
 - The project sponsor
 - The day to day project owner
 - The project manager

Taraldrud results - costs

- QA2 15 % *lower* than QA1
- Average for building projects: 60% *higher* than QA1
- Set costs Taraldrud: 2,5 billion (2015) NOK.
- P85 KVU Alna: 3,8 billion NOK

Taraldrud results – value for money

- The users: «We get everything we *need*»:
 - 20, 100 and 200 meter shooting range
 - SIBO
 - Swimmingpool with waves
 - All user groups at the same center, staying and training together

Taraldrud results – time spent

- 2 years from QA1 to QA2 (2015 to 2017)
- From QA2 to key ceremony: 3 years
- Construction time: Start to finish: 30 months

Summing up

- From Alna to Taraldrud – from failure to success
 - A strong Business case
 - Project owner with competence and capacity, including top management involvement (Minister of Justice)
 - Clear definition of success
 - Competent project management
 - Culture: Prestige in achieving success
 - Design to cost as guiding principle

Summing up

- From Alna to Taraldrud
 - Continuous cost estimation
 - One team/culture/same location – The interaction between owner, project management, user, architect/engineering and contractor
 - Learned from other projects (mistakes and successes)
 - The size and suitability of the plot
 - Single purpose organisation
 - Whole of Government approach

The National police response center – As build





Thank you

