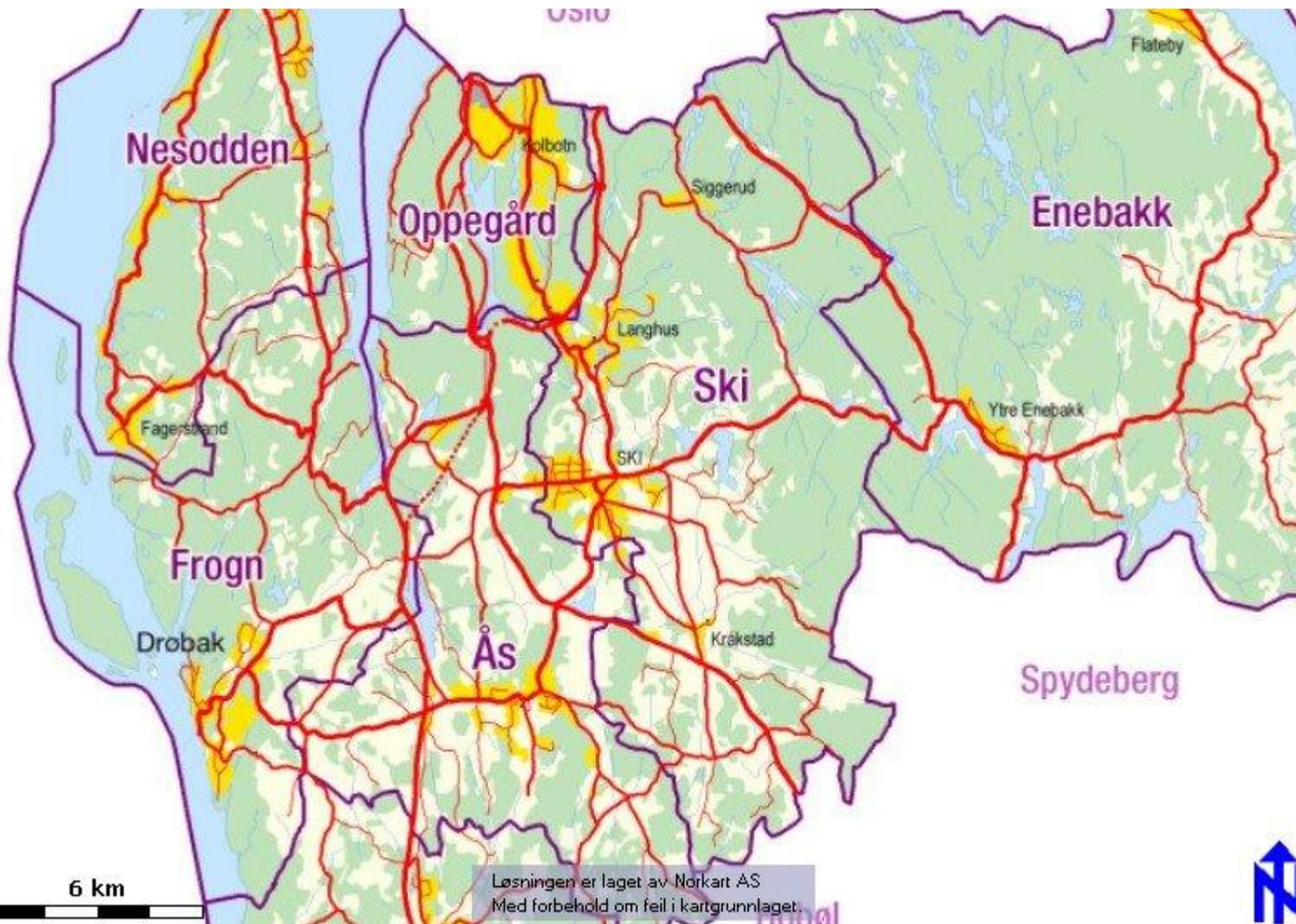




Bjørn Nordvik

(Chief of Investments Projects and Property Development)

A holistic approach in construction projects to ensure economic and environmental sustainability in a lifecycle perspective



Key Figures

Area:	85,7 sq. km
Number of Citizens:	15 820
Number of Employees:	1200
Operations Income:	1,10 Billion NOK (2016)
Investments Budget:	1,44 Billion NOK – (2017-2020)
Net Operating Profit:	4,3 %





Frogn kommune

<https://www.youtube.com/watch?v=-Q1g8pHonkU&list=PL32E362E73ACF2994>

Priority Areas/Strategic goals

Local development with good location,
residential qualities and community excellence

Economic and industrial development

Quality of life and public health

Climate and energy



Investments



SNITT GJENNOM PROMENADE



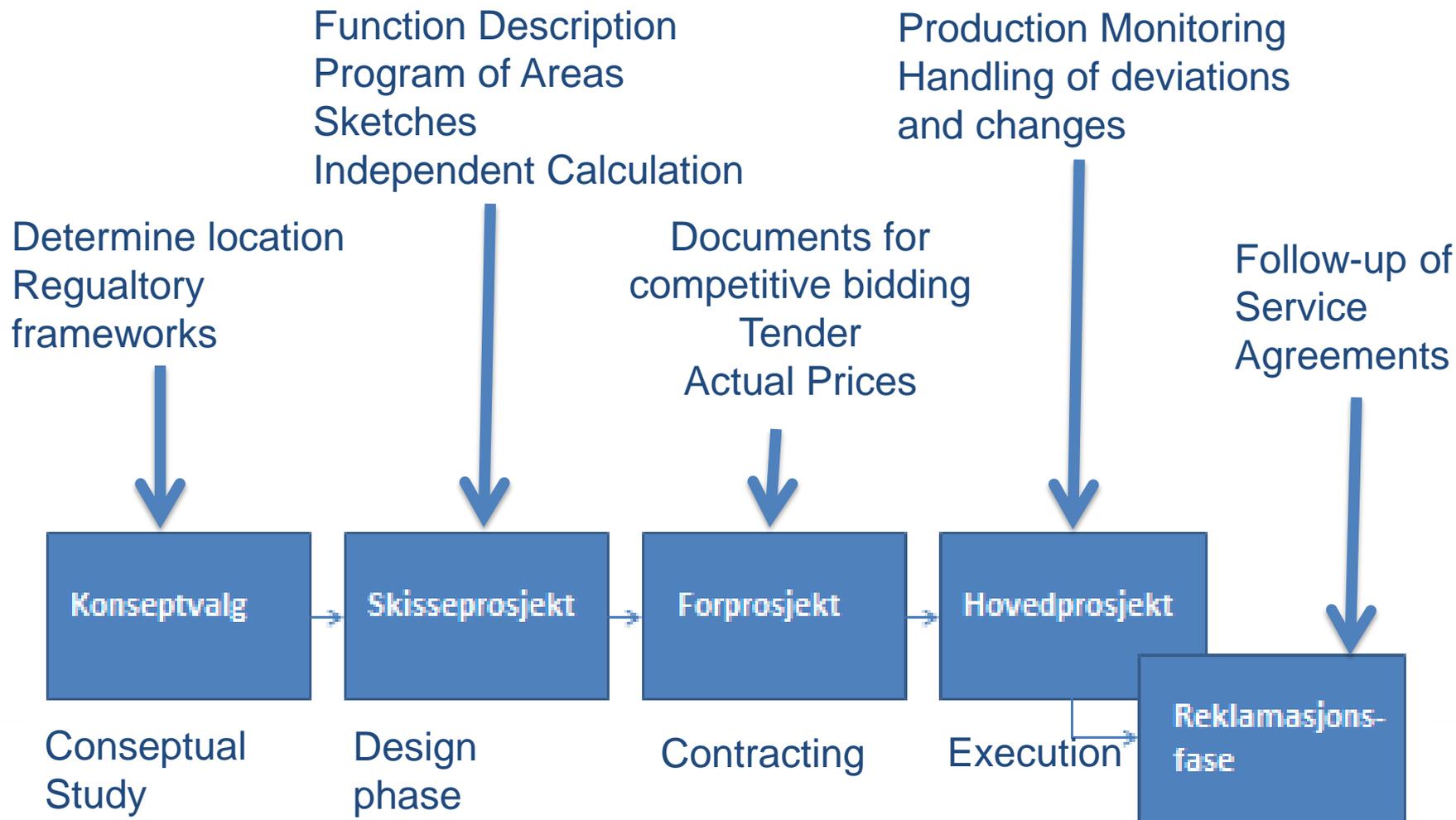


The Investment Portifolio

	2017	2018	2019	2020	Total
Investments	914*	232*	176*	125*	1449*

* MNOK

Project Management Model



Economical sustainability

- Use of LCCA in public tender competitions

Life-cycle cost analysis (LCCA) is a method for assessing the total cost of facility ownership. It takes into account all costs of acquiring, owning, and disposing of a building or building system. LCCA is especially useful when project alternatives that fulfill the same performance requirements, but differ with respect to initial costs and operating costs, have to be compared in order to select the one that maximizes net savings.

<https://www.wbdg.org/resources/life-cycle-cost-analysis-lcca>

Environmental sustainability

- Use of BREEAM in all Construction Projects – (Grade VERY GOOD)

BREEAM measures sustainable value in a series of categories, ranging from energy to ecology. Each of these categories addresses the most influential factors, including low impact design and carbon emissions reduction; design durability and resilience; adaption to climate change; and ecological value and biodiversity protection. Within every category, developments score points – called credits – for achieving targets, and their final total determines their rating.

Environmental sustainability

- Use of Massive Wood as a construction method in all Construction Projects

The principle of a construction system of massive wood is to merge wood into elements by nailing, gluing, use of three-piece or stretch stretcher. The systems are massive Items made in factory



Environmental sustainability

- Use of Energy Wells

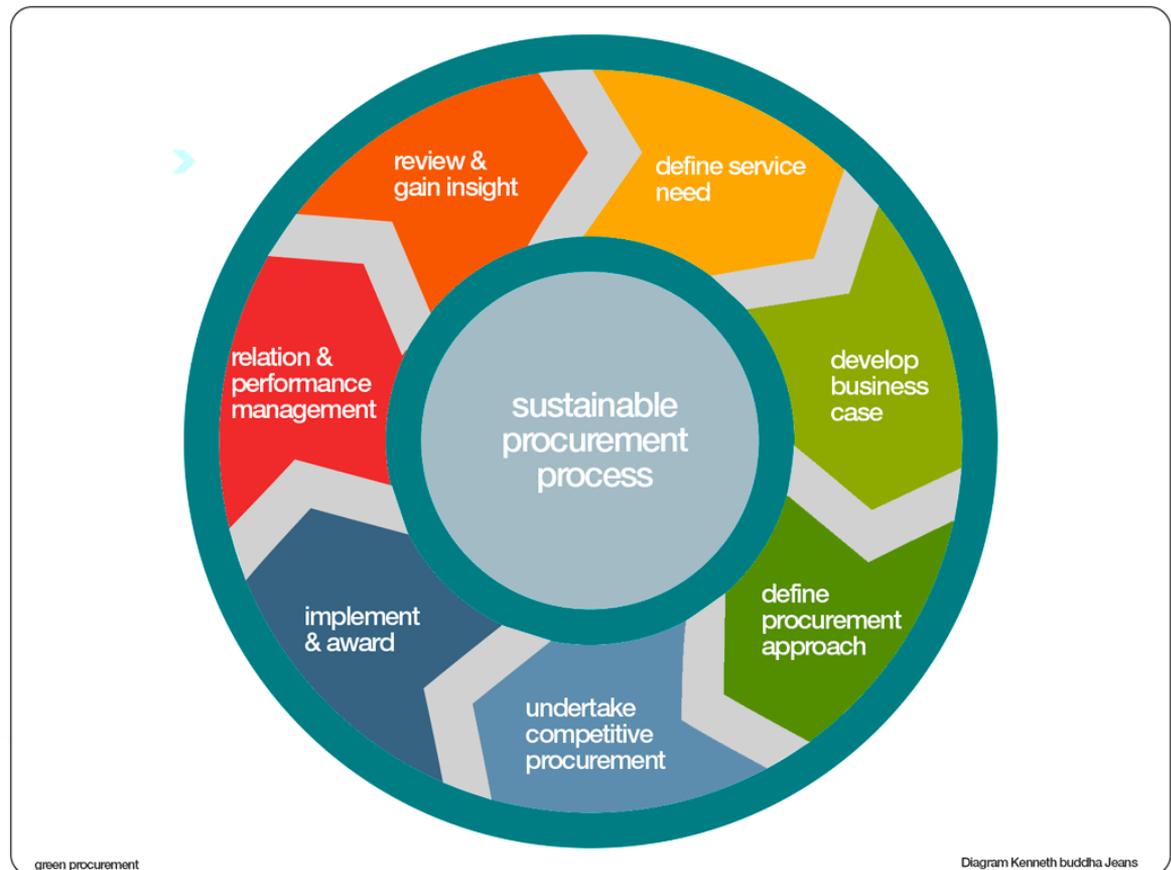
An energy well is a borehole in the ground that utilizes the rock heat using a heat pump for heating. The water in the well is the contact medium between the collector hose and the mountain. The water-filled part of the well is called effective well. The temperature in the well is usually the annual average temperature of the site + 1 ° C



Environmental sustainability

- Use of methods to ensure Green Purchasing

Green Purchasing requires the inclusion of clear and verifiable environmental criteria for products and services in the public procurement process.



Environmental sustainability

- Use of methods for Waste Management

Focus on collection, processing and recycling of waste to ensure that most of the waste is recycled rather than landfilled or finalized in another way. This makes a significant contribution to reduced resource use and lower greenhouse gas emissions.





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