Introduction
The Norwegian Mineral Strategy main messages include:
• The Norwegian mining industry should be of the most environmental friendly and actively seek future solutions
• More work is needed in the field of reducing excess materials and finding alternative use of excess materials
• It is expected that the mining industry is working to reduce discharge of harmful chemicals

It is a need for Research

Work Packages
WP1: Project Management - SINTEF / Per Helge Høgaas
• Project Management and Project Office support services
• Internal and external communication and information
• Reporting and communication with RCN
• Organise project meetings and workshops

WP2: Tailings Improvement and Characteristics. Exploiting the pre depositioning potential - NTNU / Rolf Arne Kleiv
• Study on desorption/readsoption kinetics of chemicals/fines
• Potential for recycling or immobilising chemicals/fines
The main parts of WP2 will be executed as a Post. Doc study

WP3: Study of three comparable fjords - NGU / Nicole Jeanne Baeten
• Inspection and synthesis of morphology of already mapped fjords
• Pilot marine geology study of three comparable fjords

WP4: Effects from mine tailings and associated chemicals on marine, benthic ecosystems – NIVA / Morten Schaanning
• Development of analytical methods for chemicals associated with STPs
• Ecotoxicity
• Sensitivity of the benthic ecosystem to sedimentation of contaminated STPs
• Colonisation experiment on mine tailings disposals
• State of benthic communities in STP-affected and reference fjord
• Trace metal speciation and processes at the sediment-water interface in seabed deposits with sulphide tailings
• Development of modelling of the spreading of fine fractions
• Work package management

WP5: Modelling, Impact acceptance criteria and Risk aspects - SINTEF Ocean / Raymond Nepstad
• Study of flocculation, dispersion of particles and modelling of sea current
• Impacts from use of added chemicals
• Validation with data from an existing fjord
• Post. Doc work – main activity on flocculation processes in sea water, risk aspects and criteria of acceptance

WP6: Best Available Techniques (BAT) for STPs - NIVA / Eva Ramirez-Llodra
• Data management
• Workshops for BAT

Objectives
The objectives of the KPN NYKOS project are to:
• Increase knowledge of the environmental effects of submarine deposition of fine grained tailings from the mineral industry
• Enable development of new sound environmental criteria and monitoring technologies that prepare for a sustainable mineral industry in Norway

KPN NYKOS is a competence building project with The Research Council (RCN) of Norway (BIA-Programme).
• Project budget 28 MNOK over 5 years included 5.6 MNOK contribution from participating companies

Participating companies:
• Sydvaranger AS
• Nussir
• Sibelco Nordic
• Rana Gruber
• Omya Hustadmarmor
• Nordic Mining
• Titania

Research Partners
• SINTEF Industry
• SINTEF Ocean
• Norwegian University of Science and Technology
• The Norwegian Institute for Water Research
• University of Tromsø - The Arctic University of Norway
• Geological Survey of Norway