

# From re-useless data to Artificial Intelligence: the new frontier of the knowledge becomes a reality with Open Science.

*Wednesday, 22 May 2019 11:00 (1h 30m)*

Artificial intelligence (AI) / machine learning (ML) methodologies are more and more the basis of groundbreaking research. Through proper training of the algorithms, AI/ML can make direct predictions of phenomena that earlier hardly could be investigated by solving first principles problems. That is one of the reasons AI/ML workflows are becoming the driving force in many frontiers of research and innovation, from climate modelling to health care innovation, from marketing to politics and social administration. Obviously, the larger the dataset used to train the AI/ML algorithm, the more reliable the predictive potential of AI/ML methodologies becomes. Data fusion, i.e. the ability to integrate multiple, possibly large, data sources to produce more consistent, accurate, and useful information than that provided by any individual data source alone, can really enable solid predictions, when combined with suitable computing. In the era of digital data explosion and FAIR data, data driven analysis based on AI/ML methodologies can therefore be seen as one of the most promising and innovative outcomes enabled by Open Science.

This session will focus on potentials and challenges related to AI/ML, from both a scientific and a technical point of view. By learning from already existent experiences, we will try to address the fundamental question: How can scientists, innovators, technology providers and funding bodies efficiently collaborate in the Nordics in order to transform this high momentum into a solid collaborative reality?

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**Session Classification:** Open Science