

Från betongfundament till tjädersång

Följ med på Vattenfalls AI-resa

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Development

Introduction

About myself



1997 – 2000
University of
Palermo



2001 – 2004
Chalmers

ABB

2004 – 2018



2019 – 2023



VATTENFALL

2023 –



Senior member
since 1999



Cigré member

POWER CIRCLE
Electricity for sustainable energy

Board member

KRAFTKVINNORNA
♀

Board member



We want to enable the fossil freedom that drives society forward



Hydro



Wind



Nuclear &
Digitalisation
in generation



Distribution



Industry
decarbon-
isation



Customer
Products &
Solutions



Heat

R&D Portfolios



Production



Electricity
distribution



Sales of electricity,
heat & gas



Energy services
and decentralised
generation



District heating

Our journey



2017 – One agile team

→ *getting started*

2019 – Data Analytics & ICT solutions department

→ *competence build-up*

2020 – Data Science & AI section

→ *start specializing*

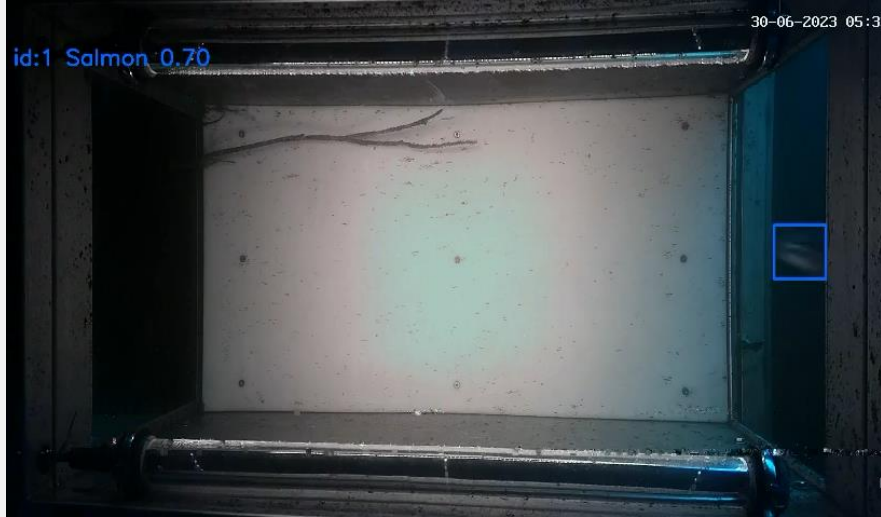
2022 – Three agile teams are formed

→ *multiple receivers*

2024 – From “proof of concept” to implementation

→ *mature, on par with other areas*

Digitalisation – AI for biodiversity research



Real-time monitoring based on image recognition

Eg species, origin and state of health.

Implemented in the fish ladder at Stornorrfors.

Next step: identifying individuals based on spot patterns on the head of the fish.



Photos: Jörgen Wiklund, SLU

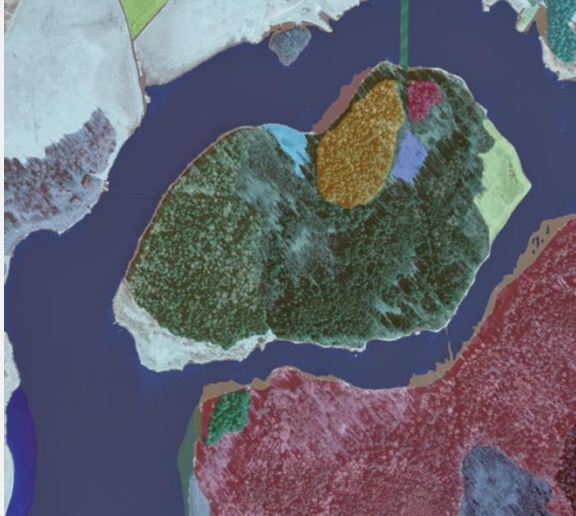
Capercaillie is an indicator of a good habitat

AI-based real-time monitoring – combining both image and sound recognition.

Based on third-party tools, adapted (eg Birdnet)

Implemented in wind power project Bruzaholm

Digitalisation & AI – Selected project examples



Satellite data analysis

Automatic identification of geographical and environmental segments. Monitor change over time.



AI-assisted search

Use Large Language Models (LLMs) to search through a large unstructured amount of docs.

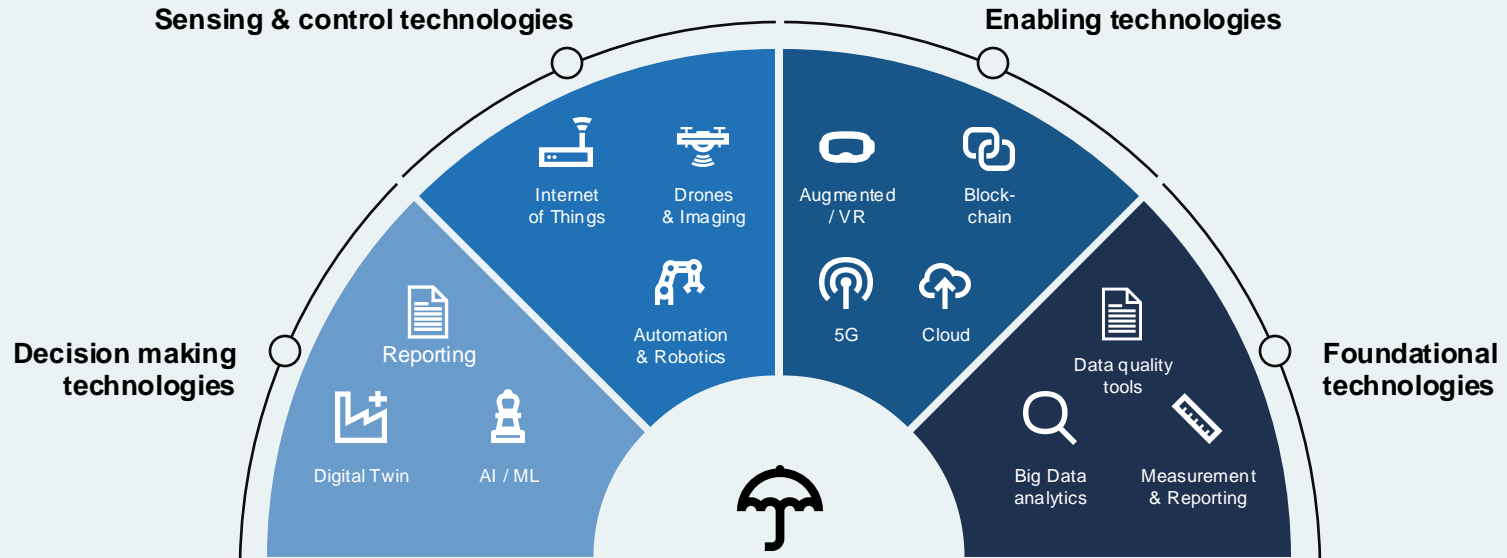


Crack Detection

Automate charting of mineral veins in bedrock and concrete.

Digitalisation trends

A broad term covering many technologies



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