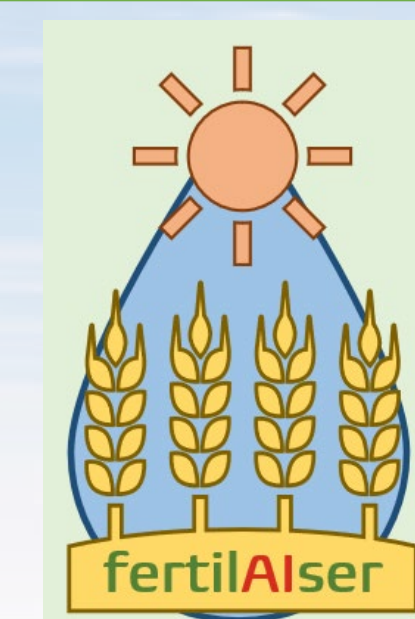
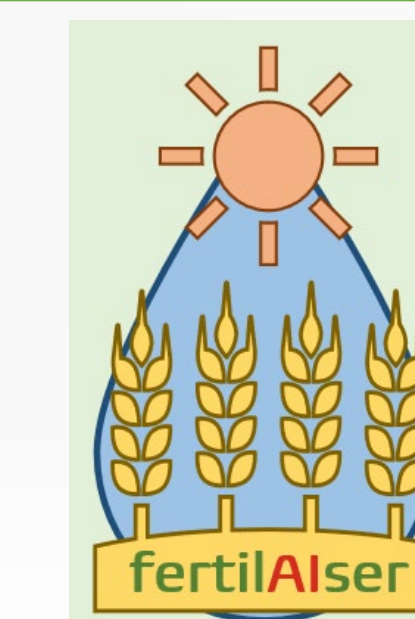




Dr Nic Fair with Dr Dan Fletcher, Dr Stefano Modafferi, Dr Siul Ruiz & Prof Tiina Roose



fertilAiser



The AI-optimised fertiliser use efficiency app

Background

- Fertiliser production consumes 1.2% of global energy & synthetic fertiliser accounts for 2.4% of global Nitrous Oxide gas emissions
- Fertiliser losses to water increases toxic algal blooms and reduces oxygen levels in waterways
- Fertiliser costs and Break Even Ratios highly volatile due to impact of climate change and geopolitics
- Nutrient Management Guide (RB209) remains primary reference source for fertilisation after seventy years

The Fertiliser Challenge



Crop Yields & Nutrition Fertiliser Waste Environmental Impact

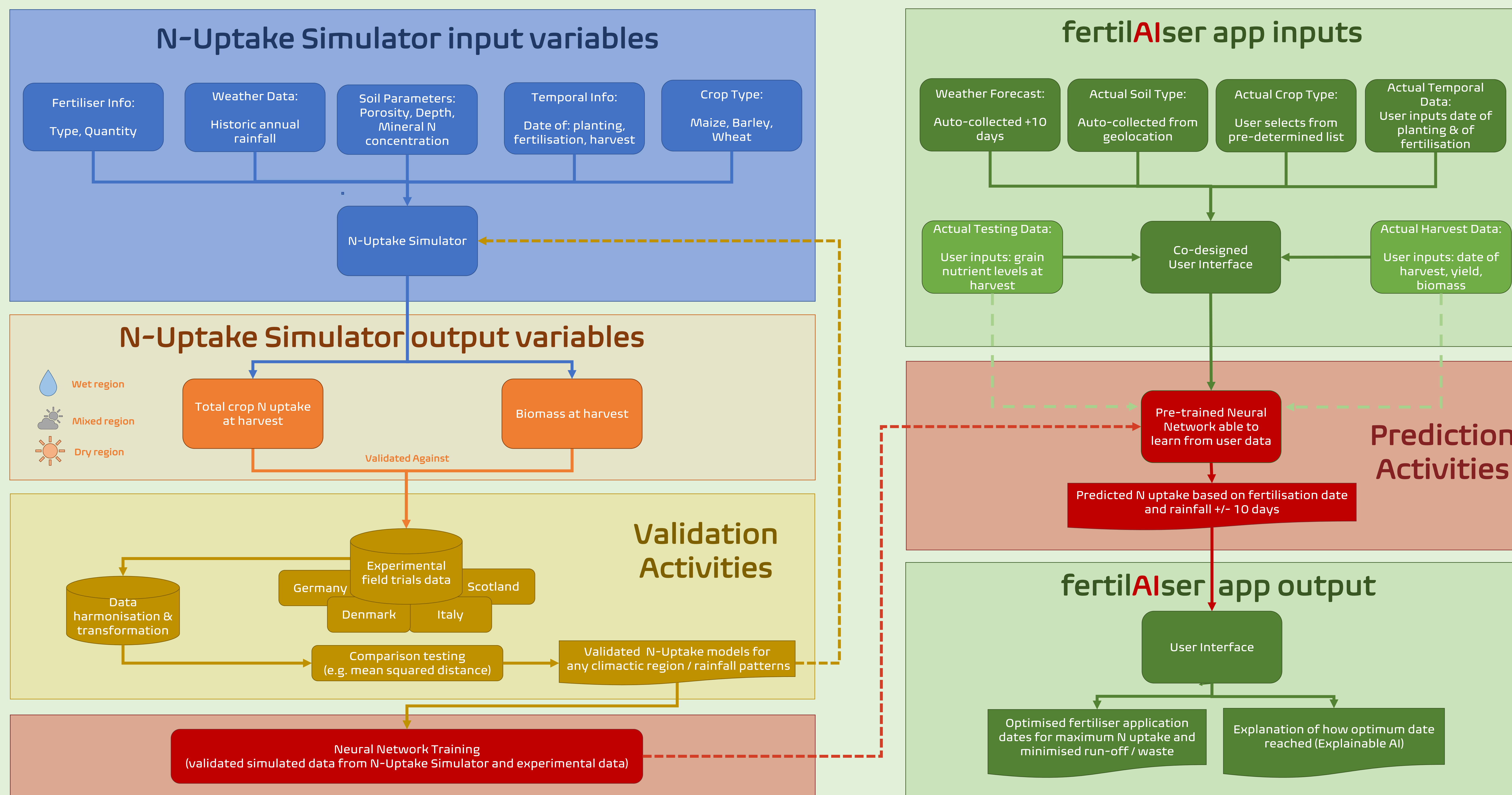
Our Solution

- Harness the power of advanced simulation models
- Deploy predictive neural networks
- Develop a user-centred, web-based app for agronomists and farmers
- Enable precise identification of optimum dates for weather-, location-, crop- & soil type-specific fertiliser application
- Minimise N losses and maximise N uptake.



App built on top of the N-Uptake Simulator awarded first runner-up Brian Chambers International Award for Early Career Researchers in Crop Nutrition 2020

How It Works



Impact

- Fertiliser losses reduced by between 20% to 35%** depending on climatic region resulting in:
- reduced fertiliser losses to water and waste
 - reduced greenhouse gas emissions resulting from fertiliser production and use gains
 - higher yields and improved nutrition from increased N uptake
 - up to an estimated £35million cost savings (in UK alone)

GET INVOLVED:
Help design the app here:



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