

# RESOUND

tRust assEsSment cOntent agricUlture iNformation moDeLing

## Implementation

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## Keywords

- Commodity Trading
- Quantity & Price Prediction
- Artificial Intelligence

## Skills

- Finance / FinTech
- Deep Learning
- Time Serie Analysis
- Time Serie Forecasting

## Value Creation

Commodity Market

## Funding

☑ Innosuisse  
Application number:  
100.940 IP-ICT

## Duration

30 months  
08/2024 – 02/2027

In the field of agriculture markets, the quality of information is central to deliver any reliable forecast or market appraisal. Unfortunately, this is hard to reach for two reasons: (1) data sources are not always trustworthy, (2) forecasting models have to take into account heterogeneous data impaired with different levels of trust.

RESOUND aims to be the first-of-its-kind to provide a higher standard of information quality that involves the joint learning of trust and forecasting models. This resulting joint model is a unique innovation based on patent search at IPI. The platform improves the overall quality of information through continuous learning to understand what forecasting is reliable given the source that has delivered it.

The needed research will aim at jointly modelling trust and forecast, leveraging on (1) the use of “trust factors” as input for deep learning forecasting models and (2) the use of explainability techniques from the forecasting deep learning models to improve the identification of trustable sources. Explainability techniques in models such as transformers are the subject of active applied research. The mix of trust and forecasting models is inventive in the field with large applicability of the research results.

A pragmatic path will be followed, first targeting a baseline where trust and forecasting models are split, then aiming at coupling both models to gain new insights about the quality of information. This new paradigm will be integrated to process all of our input data streams and will therefore improve DNEXT service offerings for existing customers and address current and new market segments, leveraging key market players and a better market understanding through a higher standard of quality of forecasting. DNEXT clients will extend their internal data with external data sources.

