



# Forest market data automation, Case Finland

-Joint working party 1.6.2023

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# Content

- What is MTK?
- What is API and its benefits?
- How project was started and continued?
- Conclusion

# What is MTK?

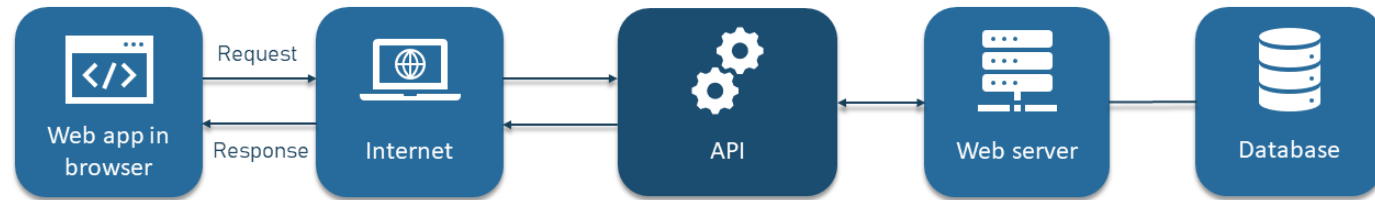
- Central Union of Agricultural Producers and Forest Owners MTK
- MTK is an interest organization representing farmers, forest owners and rural entrepreneurs in Finland (278 000 members)
- MTK improves members' economic and social welfare
- MTK promotes sustainable and economical usage and handling of rural area's capital
- In 2017 MTK celebrated it's 100 years of anniversary
- Forest management associations (56 individual)



# What is API and its benefits?

- “API stands for Application Programming Interface. It is a set of rules and protocols that allows different software applications to communicate and interact with each other. ...” Source: chatGPT, <https://chat.openai.com/>
- **Old way: Excels + powerpoints**
- **New way: API (Application Programming Interface)**
- **Benefits:**
  - Time saving
  - Mistakes away
  - Updating
  - Security
  - Sharing
  - Comparison
  - Visualization
  - Innovation

## HOW API WORKS



# How project was started and continued?

- Starting point
  - Almost all data material downloaded and filled in excels (more than 50 individual excels with several sheets)
    - > **Clarify your main aim!**
  - One data automation done for weekly wood market information in public website (ca. 2015), but all data automation tools was little used. Publicly available: <https://www.mtk.fi/metsateollisuuden-puukauppatilastot>
  - What benefits can be reached for forest owners?
    - Data presented so that it helps forest management decisions
    - Reliable market price data is important for forest owners (it is the main reason of profitability)
    - **Our aim: Maximize customer value added**
    - Maximize knowhow support for experts (exact regional data)

## • What was needed?

### – Data

- Public
- Market
- Own

### – Tools

- Data source (API connection)
- Data server and connection technologies to the data warehouse
- Data analysis (For example; Tableau)
- Intranet, internet or apps for publishing

### – Knowhow

- Basic forest data knowhow
- Data handling
- Visualization
- Service design (Customer friendliness)

### – Money

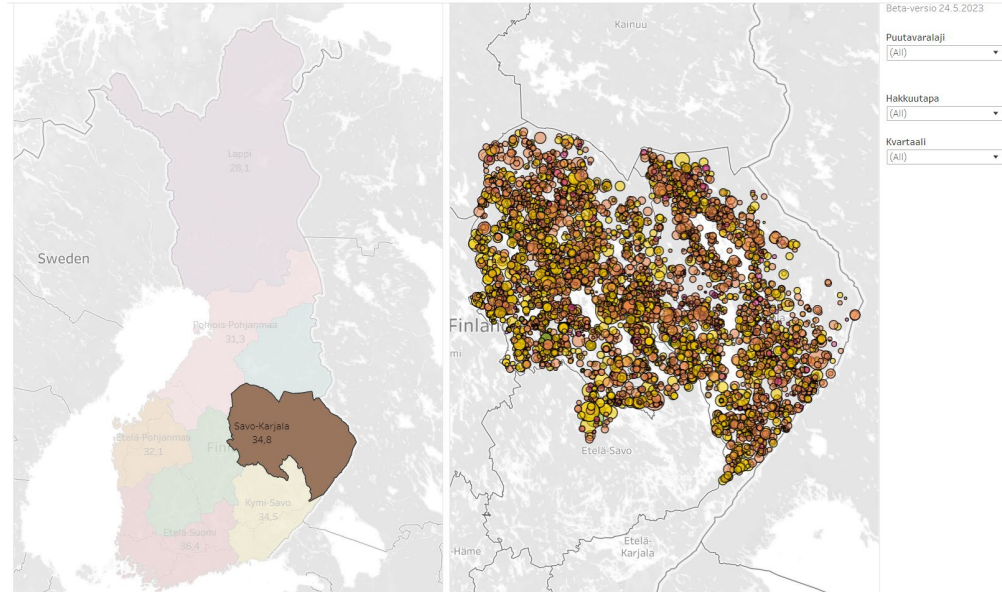
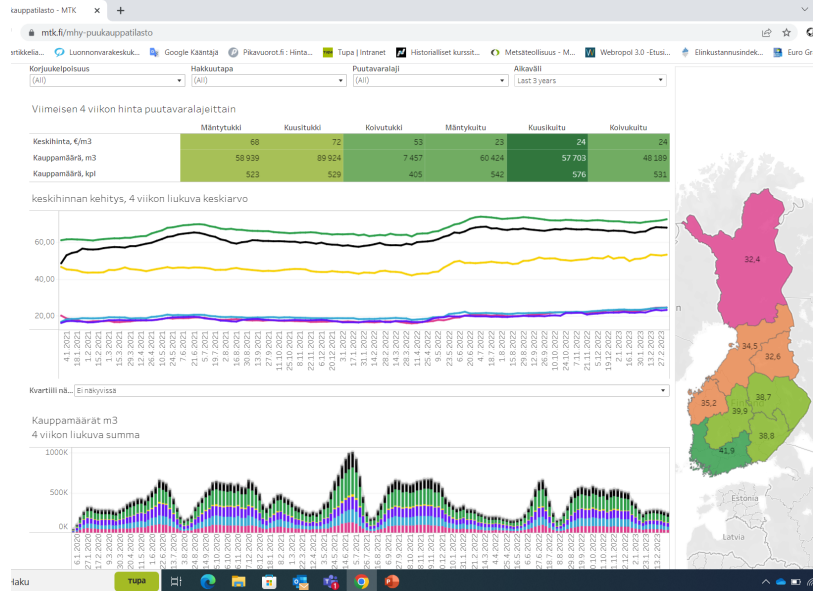
- Continuous project (PoC -> Project -> Continuous improvement)
- Rise of cloud computing provides cheaper data storage and easier to set up cloud data warehouses (BigQuery, Snowflake for example).
- Prices came down and techniques developed quickly...

# ...to be continued...

- PoC (Proof of Concept) (2022) and project (2023)
  - Two data operators were tested with PoC -> Offers from the service
  - Selected one continued from the PoC
    - > 2 ready concepts in the member's intranet 2022 <https://www.mtk.fi/puumarkkinat>
  - Own internal project plan to continue data automation (12/2022)
    - > 2 ready concepts already in the member's intranet by 5/2023
- Next step
  - Continuous improvement process of early concepts...
  - **International wood market in Europe (Finnish export and import as well as wood prices in the other countries)** (already in excels but get rid of excels!)
  - Developing GIS of supply and demand
  - Nature values for the part of wood market and data automation tools! One website exists (owned by MTK): <https://www.luontoarvot.fi/>
  - Innovation together with the main digital wood trade service (owned by MTK and Finnish forest industry): <https://www.kuutio.fi/>
  - Developing our own forest owner service database: <https://www.omametsa.mhy.fi/>

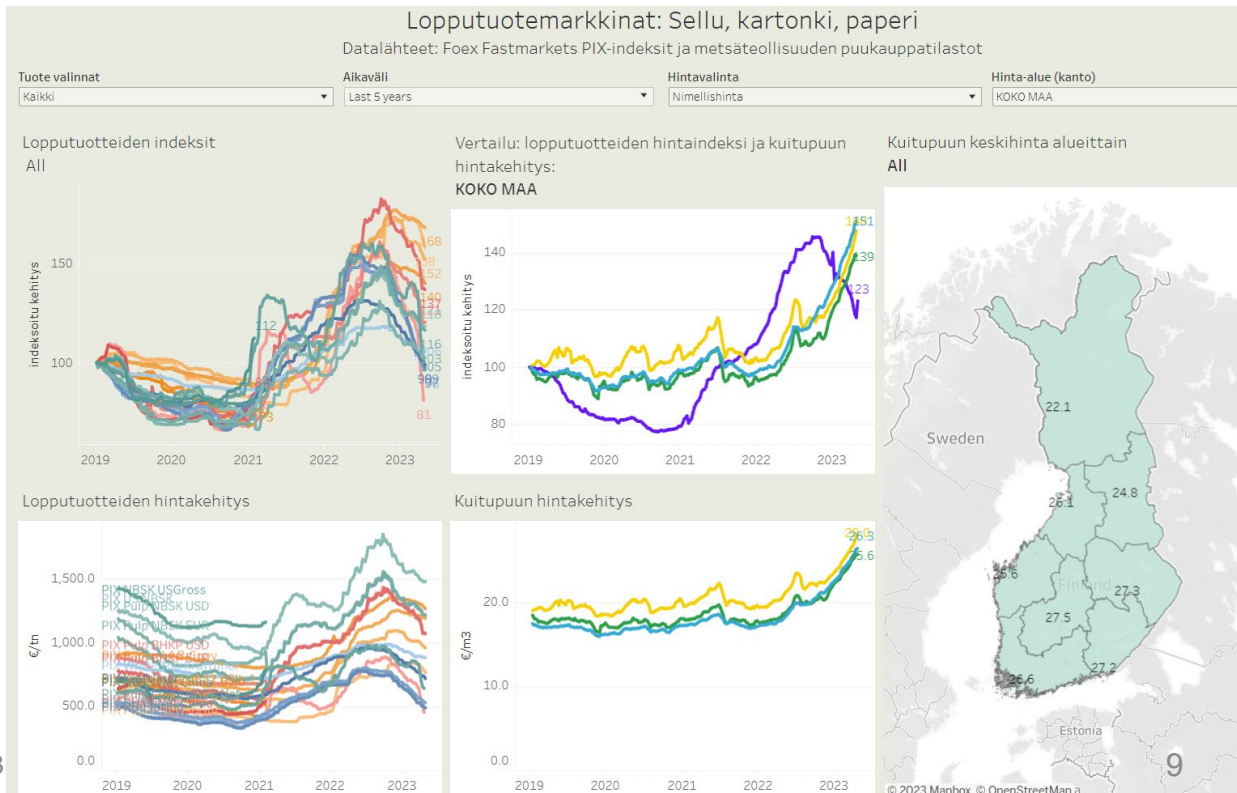
# How it looks like in practice!

Our own wood price data for competed wood trade (Forest management association is between the seller and the buyer (updated weekly by now))





# Forest industry price indexes (Fast Markets, FOEX PIX weekly data) vs. Regional wood market prices in Finland (weekly data)



End use prices

Wood prices

# Conclusion

- MTK is the forest owners´ s defence union
- API benefits to get rid of excels to provide more detailed data for giving possibility to make better decisions
  - Our aim is to add customer´ s / forest owner´ s value
- Data automation project has been a success process!
- UN / Forests / World could benefit for better data
  - > **Clarify your main aim!**
    - What benefits can it be received with data automation and sharing?
    - It´ s at least worth to try!