

# Kanva: Better predictions for better decisions

**Kanva** is an innovative software solution that enables domain experts to create state-of-the-art AI **prediction models** based on historical data. Any business scenario where predictions over historical data can make a difference is a potential use case, but common ones include predicting customer churn, forecasting service consumption, and predictive maintenance.

## No coding or AI skills required

**Domain expertise** is all that is needed to create powerful regression, classification and forecasting models in **Kanva**, making advanced predictive analytics accessible to professionals across various fields.

## Full ownership

Predictive models in **Kanva** are created from scratch, do not use any external resources or APIs, and are **fully owned** by the customer. This ensures data privacy and gives users complete control over AI assets.

## Runs on your infrastructure

**Kanva** can be installed in any Azure subscription from the Marketplace or an ARM template. Manual and custom installations are also supported.



# Industry Use Cases

## Energy & Utilities



- Energy demand forecasting
- Grid maintenance scheduling
- Renewable energy output prediction
- Usage pattern analysis

## Financial Services



- Credit risk assessment
- Customer churn prediction
- Fraud detection
- Portfolio performance forecasting

## Logistics



- Delivery time estimation
- Fleet maintenance prediction
- Route optimization
- Warehouse capacity planning

## Manufacturing



- Equipment maintenance prediction
- Quality control optimization
- Production yield forecasting
- Inventory demand prediction

## Retail



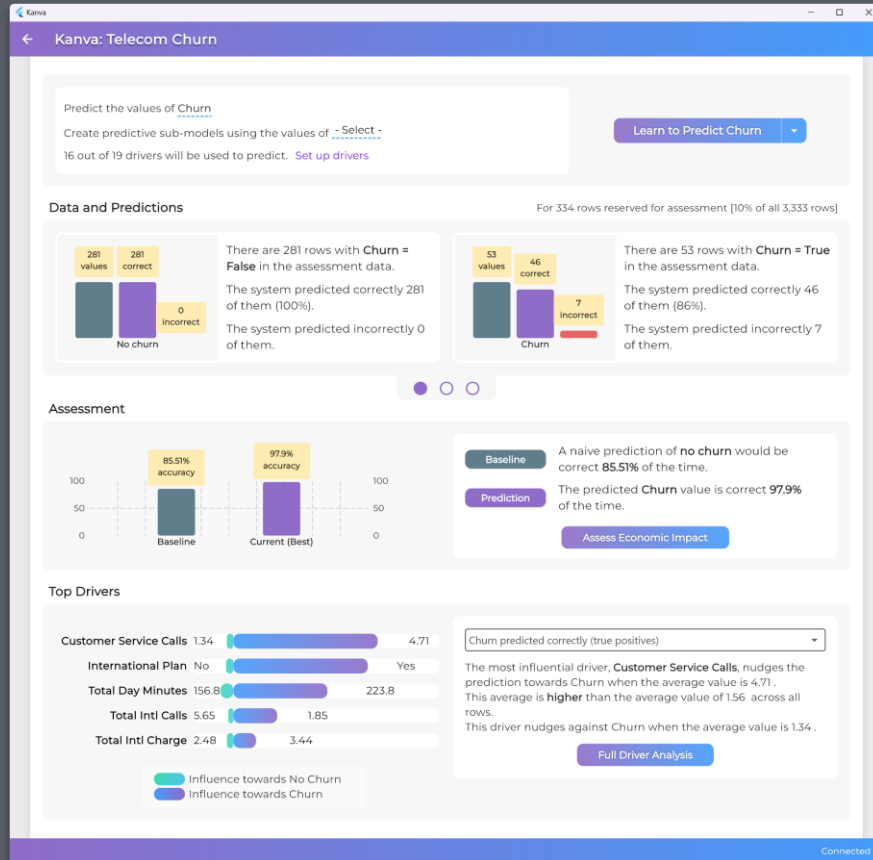
- Sales forecasting
- Inventory optimization
- Customer segmentation
- Price optimization

## Telecom



- Customer churn prediction
- Data consumption forecasting
- Predictive maintenance for network infrastructure
- Medical inventory management

# Kanva: AI-powered predictions



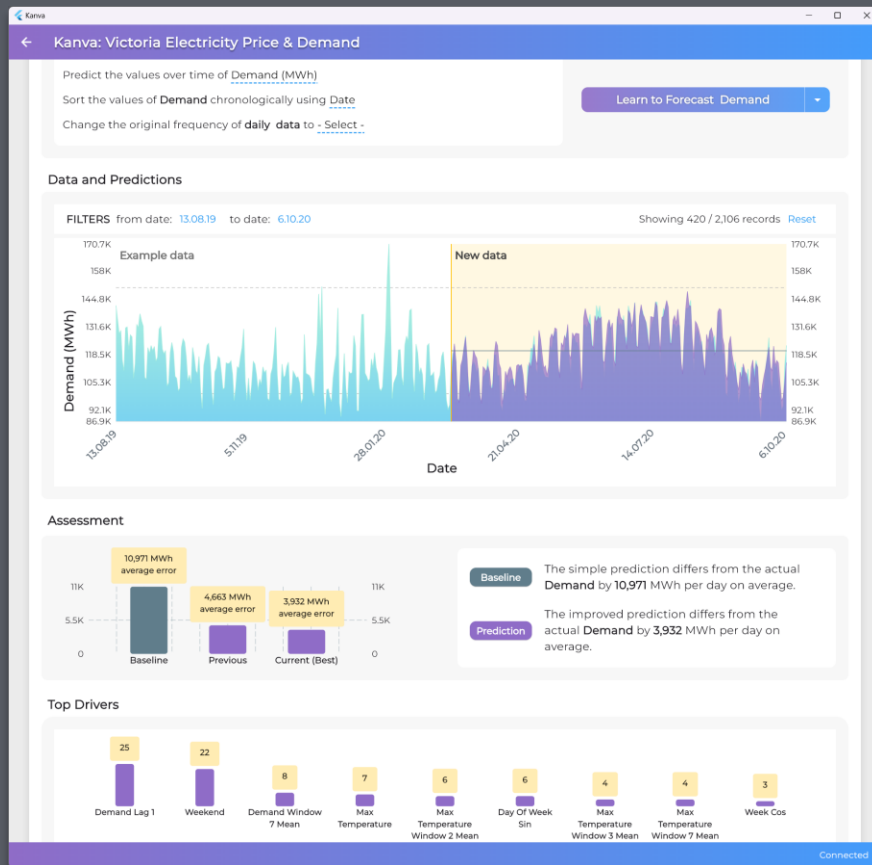
Kanva enables domain experts to create **AI-powered regression and classification models** based on historical data.

In this example, **Kanva** learned to predict churn for a telecom company. The example data is 3,333 records with 19 attributes.

Out of 53 churn instances in 334 entries with new data, **Kanva** correctly predicts 46 (7 were missed). This is before any tuning in the form of adding or removing drivers that can improve results.

In addition, Kanva compares this with a naïve baseline, and provides an analysis of the top drivers, both at single prediction level, and aggregated for all the predictions.

# Kanva: AI-powered forecasts



Blue area: actual demand  
 Purple area: forecast generated by Kanva.

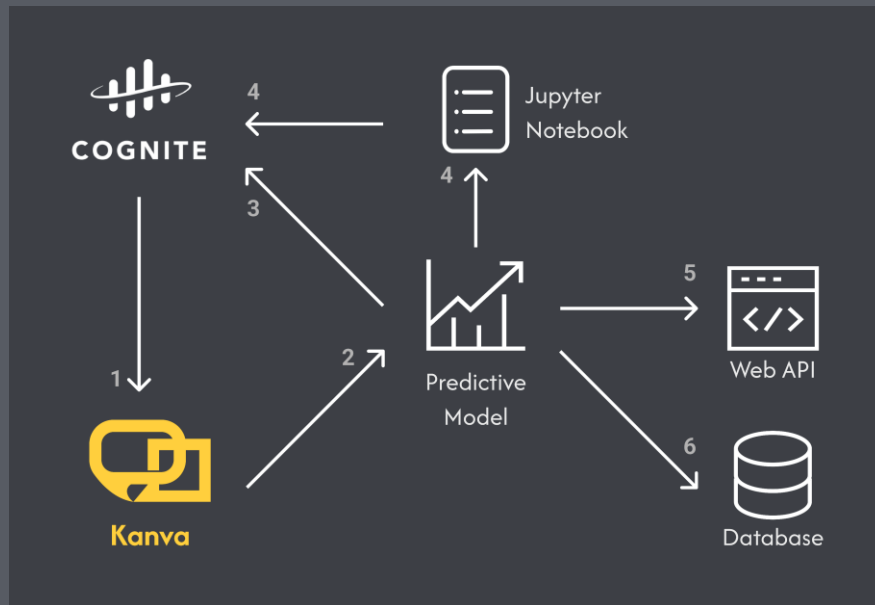
Kanva enables domain experts to create **AI-powered forecasting models** based on historical data in minutes or seconds, for any quantity that changes over time due to known causes.

In this example, Kanva learned to forecast 1-day ahead electricity demand in Victoria, Australia. It generated a baseline (simple mean) for comparison and translated the results to an understandable statement. Just from patterns in the data itself, it can forecast the demand with an average error of 4,663 MWh; improving over the simple baseline by 6,308 MWh.

The domain expert can **add drivers** to improve the forecast. In this case, by including the maximum daily temperature, the average error has gone down further from 4,663 to 3,932 MWh.

# Cognite Data Fusion support

Kanva supports loading time series data directly from **Cognite Data Fusion** using the Cognite API.



1. Once a CDF data source has been created in Kanva, asset time series can be imported into Kanva as a regular dataset.
2. A time series forecasting model is created in Kanva.
3. Prediction data can be sent back to CDF.
4. The model can be exported as a Jupyter Notebook to run as a Cognite Function.
5. The model can be exported as a Web API to produce predictions on-demand.
6. The model can generate batch predictions and insert them into a database at scheduled intervals.