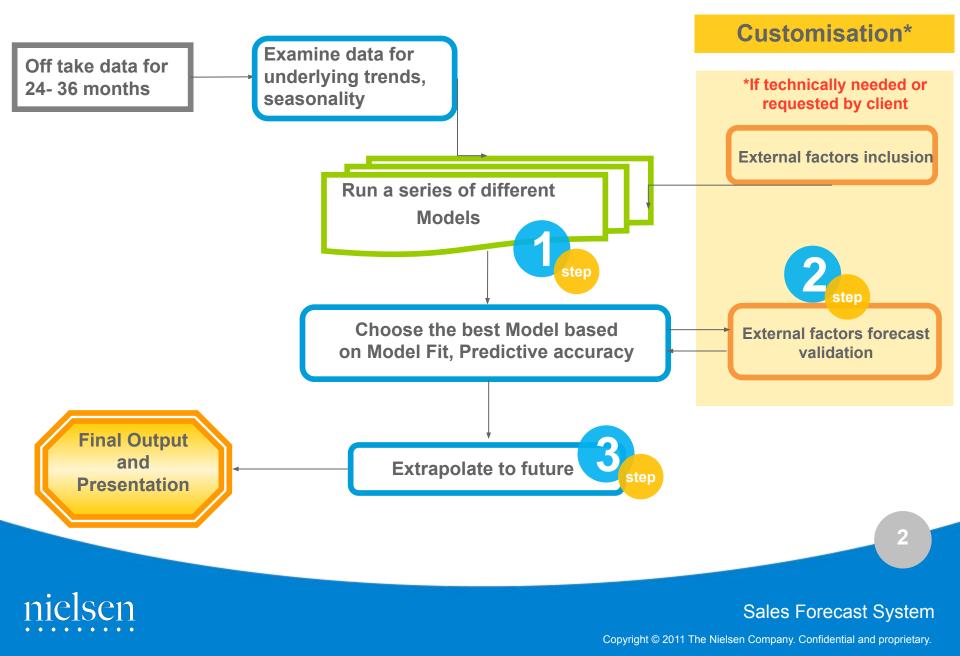
Forecasting Solutions Project Process Details

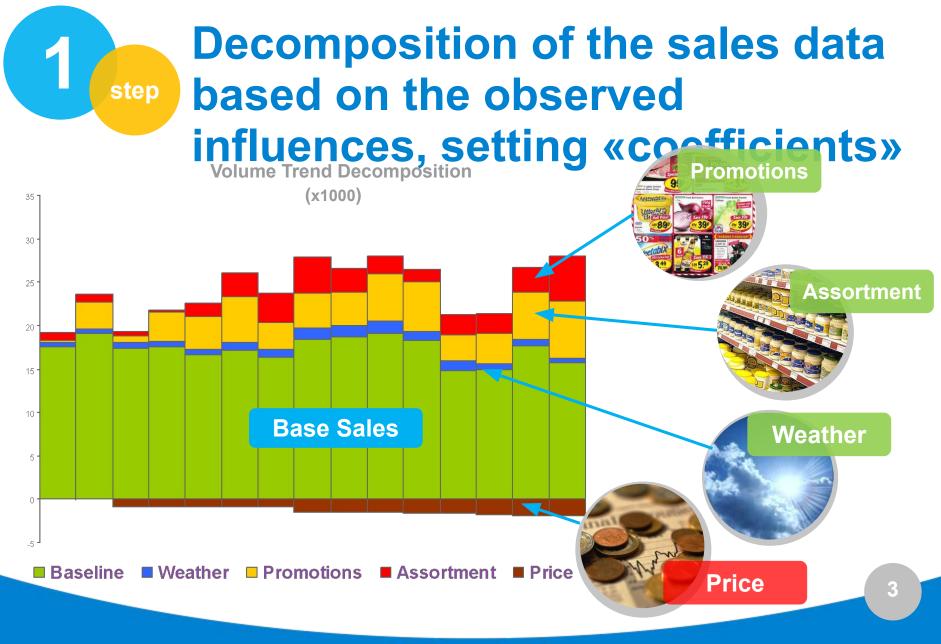




Sales Forecast System

The Project Process

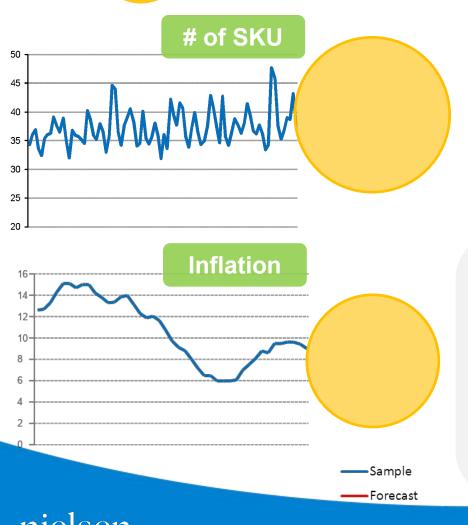


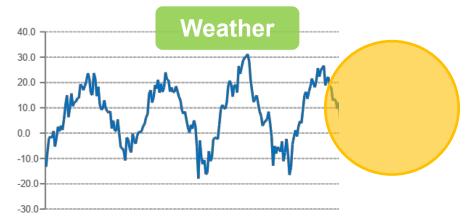


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Sales Forecast System

Forecast the economic and other category variables



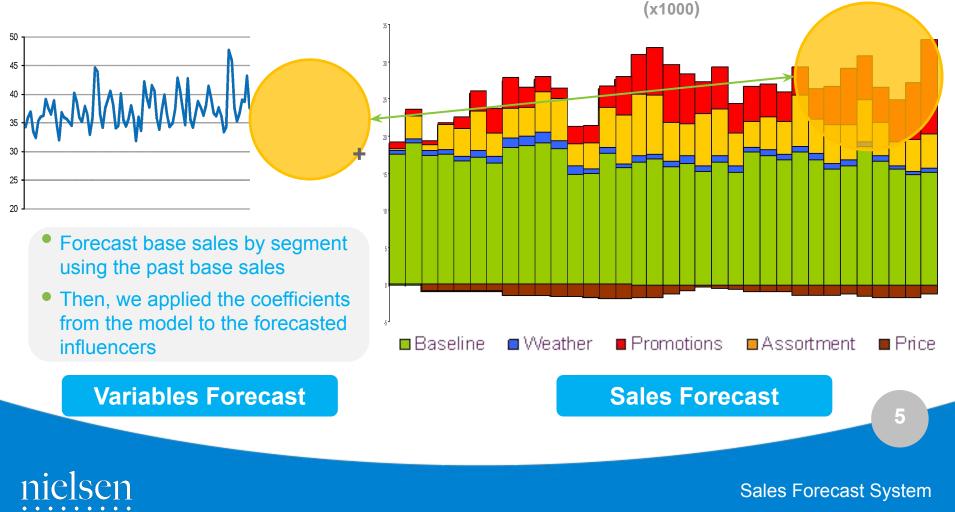


- Each forecast is totally independent
- Forecasted variable will be challenged by our Nielsen Market experts and other public forecast (IMF, OECD...)

Some influences cannot be "forecasted" with high accuracy (e.g. weather), in that case we will use a scenario* based on the average past observations.

* e.g. "weather" scenarios (avg t° from the last 3-4 years , avg + or – 2°C) Sales Forecast System

Baseline forecast and decomposition of forecasted sales based on forecasted variables. Trend Decomposition



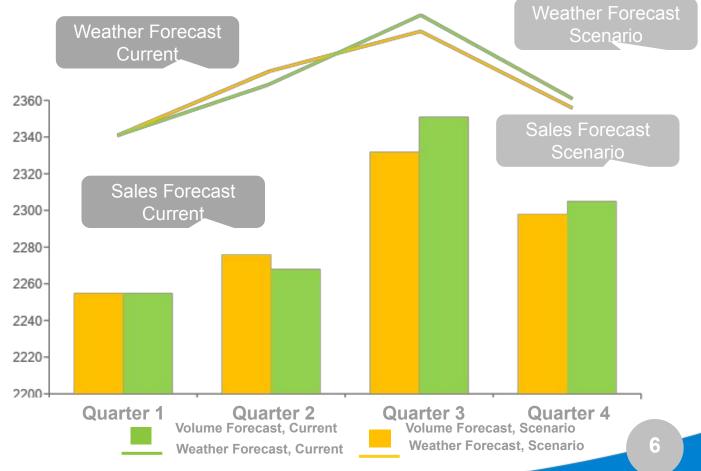


Scenarios simulations

We change influences forecast at Step 2 and repeating Step 3 and can see how category sales will react to this change and compare trends





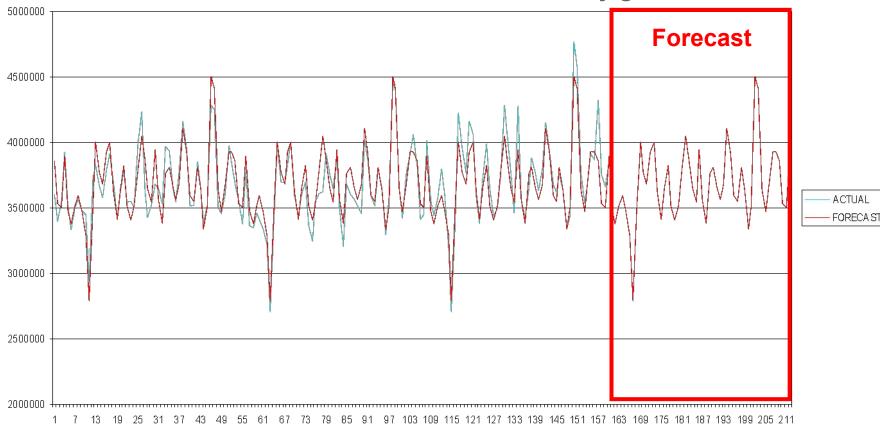


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Sales Forecast System

Accuracy evaluation Oral care category (France)

MAPE*= 2.57 Very good MAPE value



***Mean absolute percentage error** (MAPE) = is a measure of accuracy in a fitted time series. It expresses accuracy as a percentage. The closer the value is to 0 the better is the fit.



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