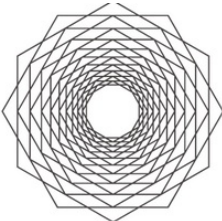
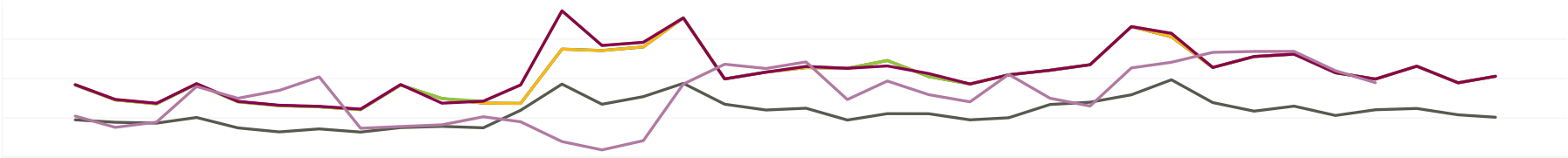


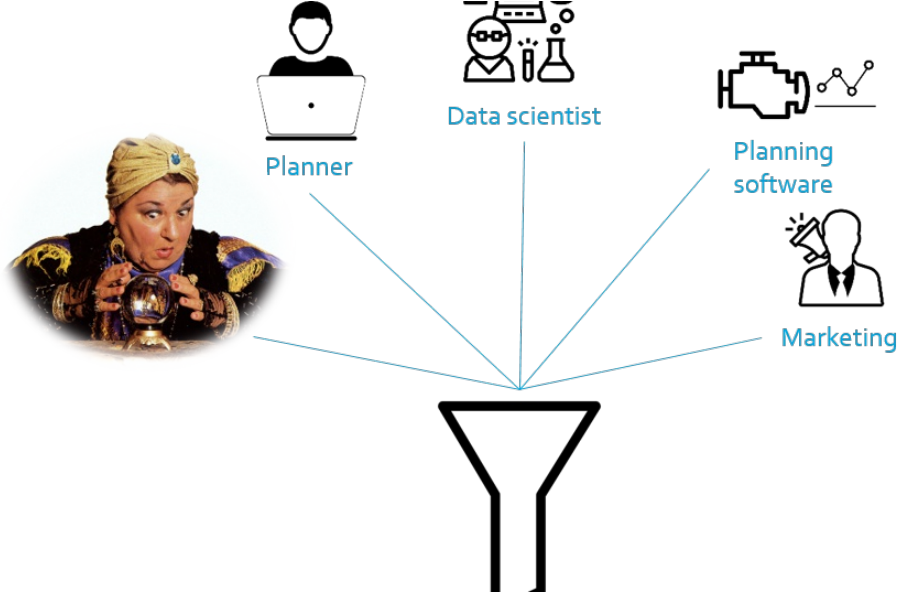
Measuring the value that forecasts add



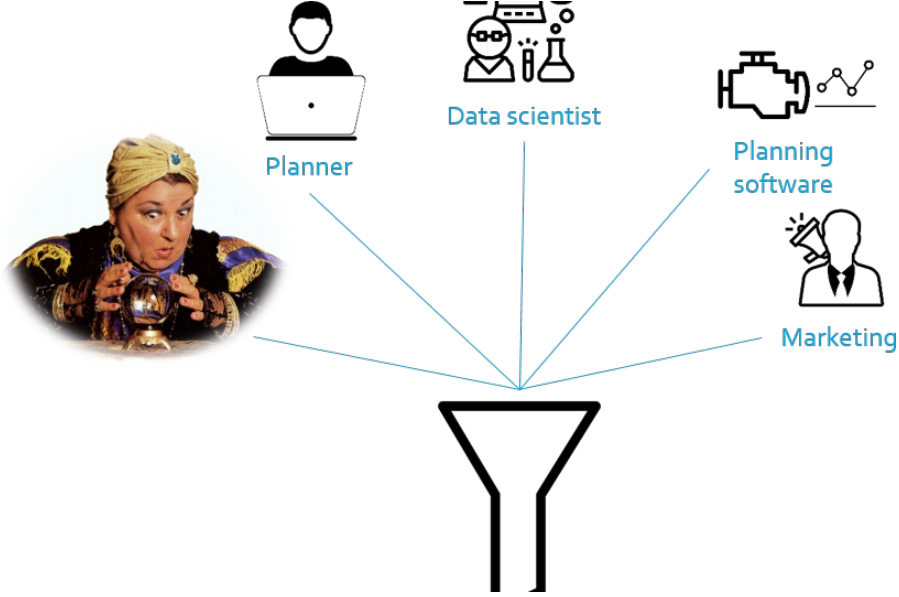
eyeon
YEARS AHEAD



Which forecast is the best?



Which forecast is the best?



Measure!!

But how?

“To measure is to know”

- Mean Absolute Percentage Error (MAPE)
- Weighted MAPE
- Mean Percentage Error (MPE)
- Mean Squared Error
- Weighted Absolute Percentage Error
- Mean Absolute Error



- R-Squared
- Root Mean Squared Logarithmic Error (RMSLE)
- Log loss
- Weighted Mean Absolute Error
- Root Mean Squared Percentage Error

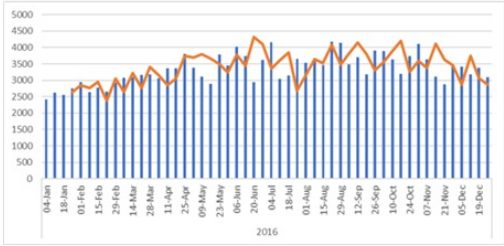
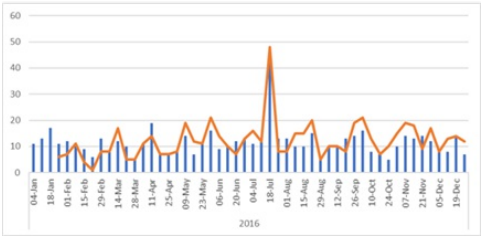
Which product forecast is more accurate?



Battery



Energy Drink



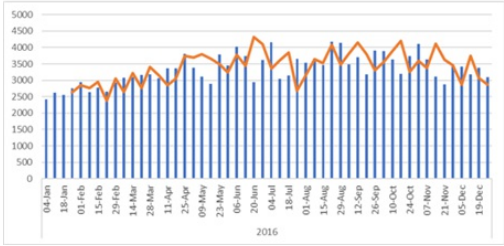
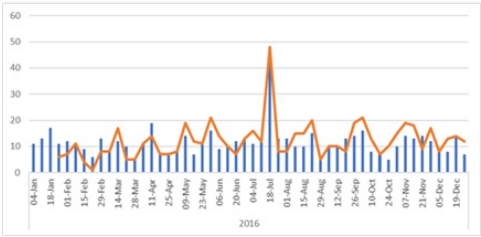
Which product forecast is more accurate?



Battery



Energy Drink



69%

1 - Mean Absolute Percentage Error (MAPE)



87%

However...



Battery



1-MAPE of forecast



1-MAPE of **naive** forecast



Energy Drink



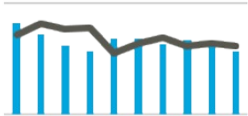
+17%

Added forecast accuracy

-1%

A higher forecast accuracy does not always signal good performance. Measuring the forecast accuracy **versus a benchmark**, such as the naive forecast, identifies good and poor performers.

The process typically exists of multiple steps



– Naive statistical forecast



– Advanced statistical forecast



– Planner enrichment

The process typically exists of multiple steps



- Naive statistical forecast

- Advanced statistical forecast

- Planner enrichment



But, what is the value of each step?

Company Case

- Energy Drink Manufacturer
- Delivering multiple brands and packages
- Delivering to multiple retailers all over Europe

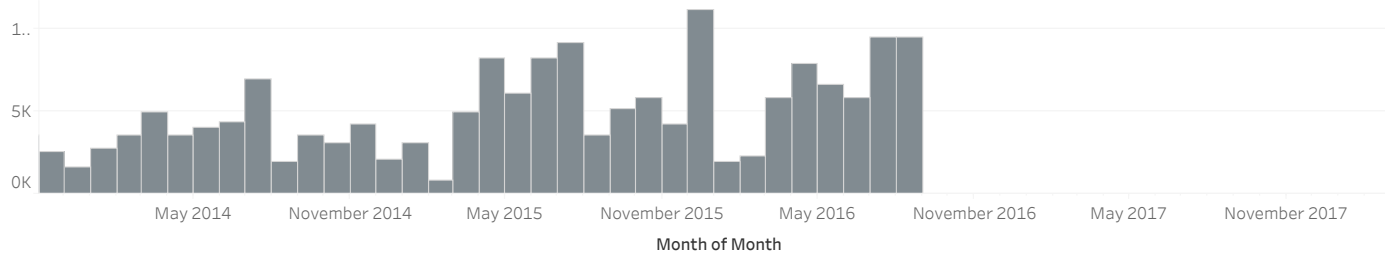


A monthly cycle

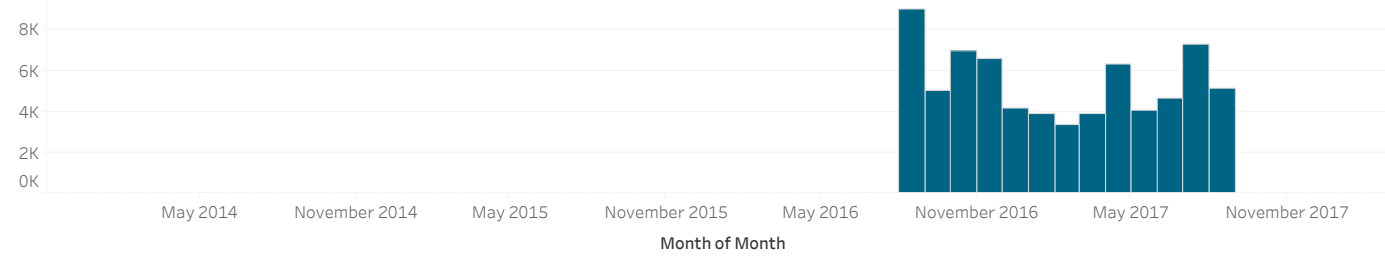
SKU
adhsa Customer
AIER-

..
Date
01-Aug-16

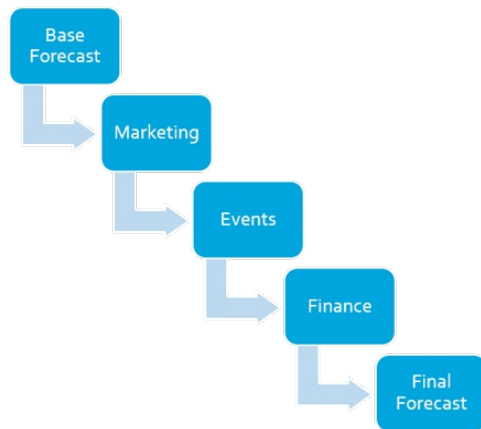
Actuals



Final Forecast



One can see this as a sequential process where every step should add value to the forecast



Building up a Forecast

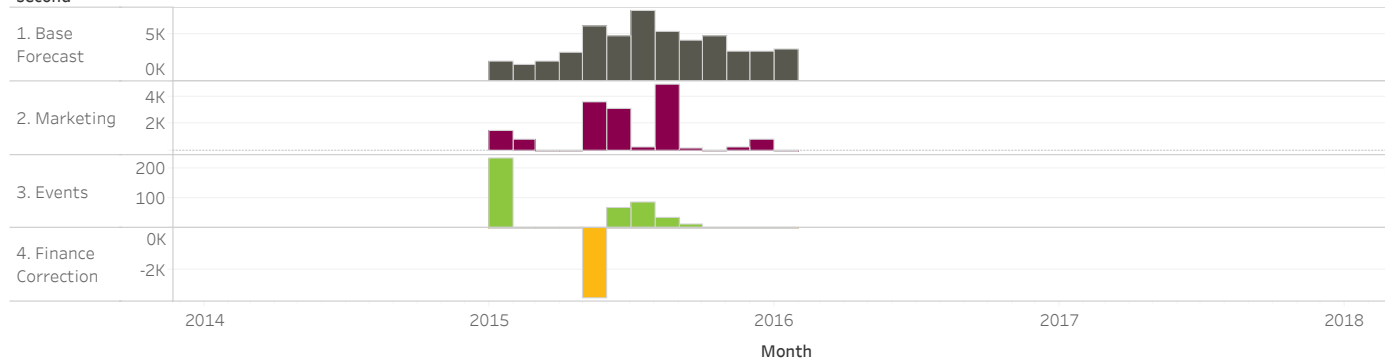
SKU
adhsa Customer
AIER-

The forecast is build up by making a base forecast. Then three forecasts are added to come to a final forecast: Exter..

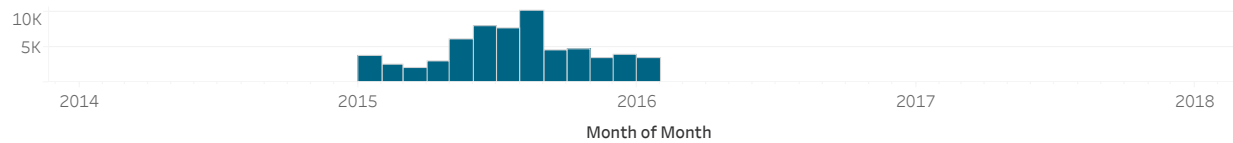
Date
01-Jan-15

Forecasted

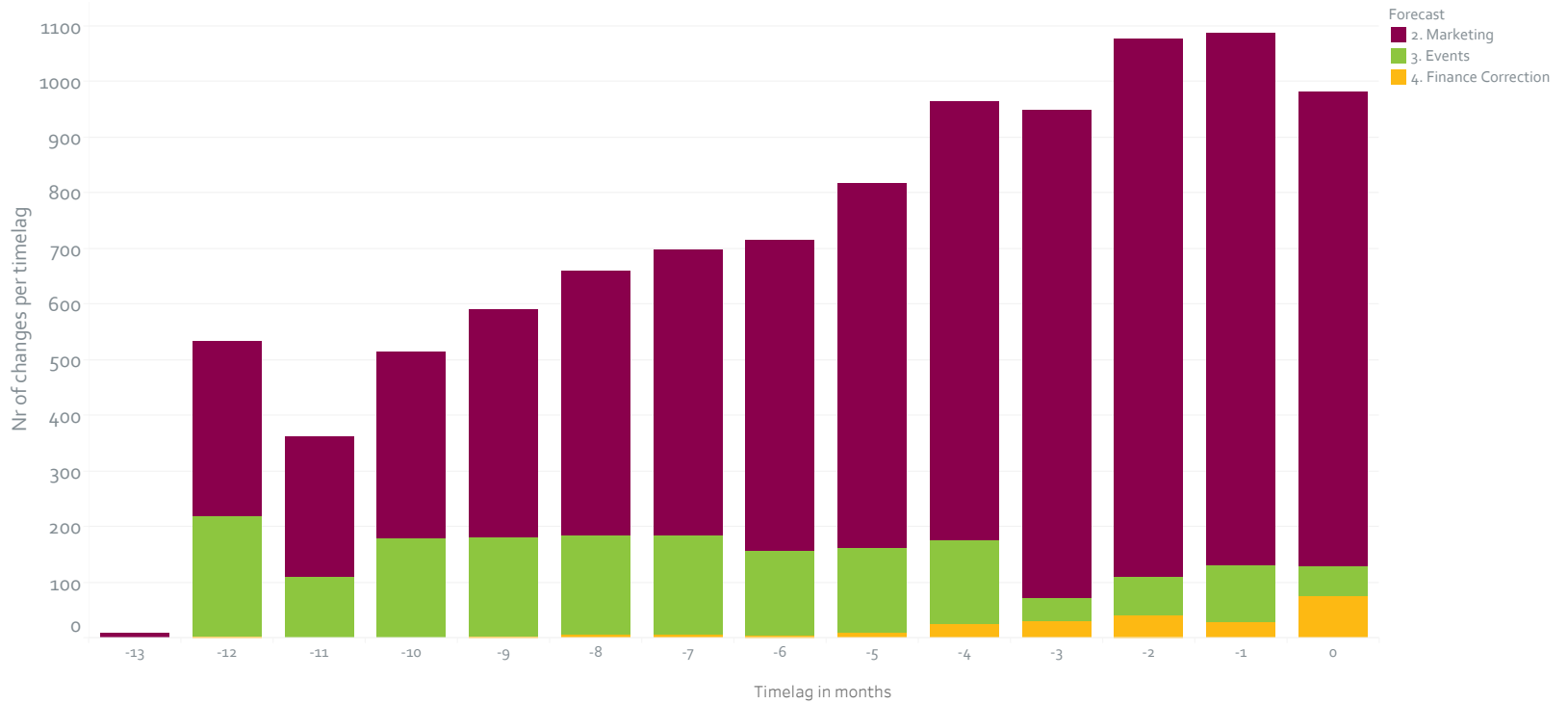
second



Final Forecast



All these forecasts change something about the process. How can we see the value of these changes?



We can measure effectiveness by measuring the forecast accuracy and compare it to the forecast accuracy of the previous step

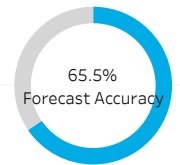
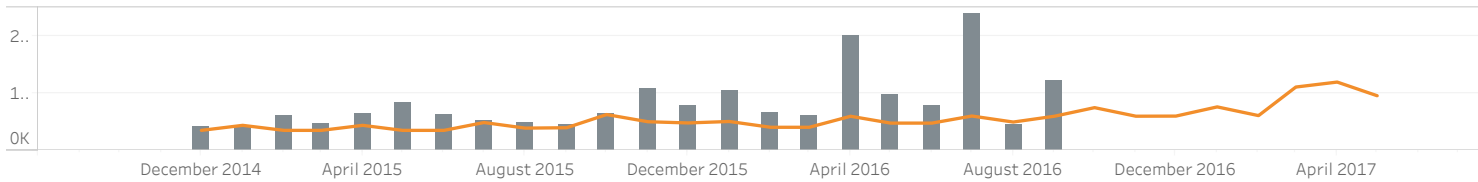
Customer
AIYR-

SKU
50htk

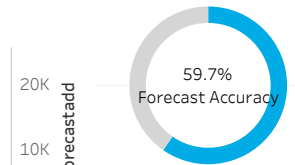
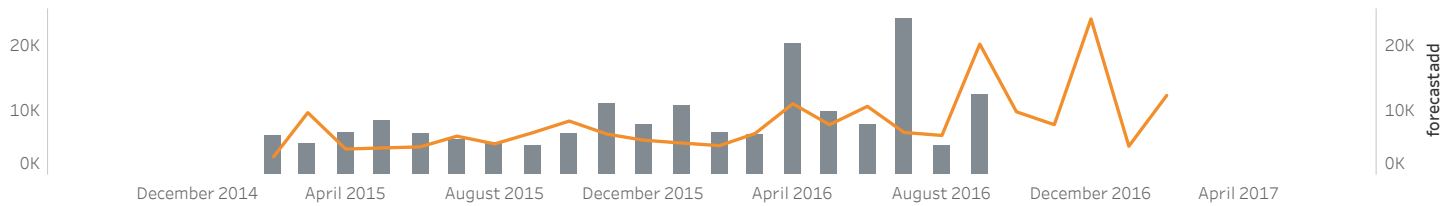
Timelag

4

1. Base Forecast

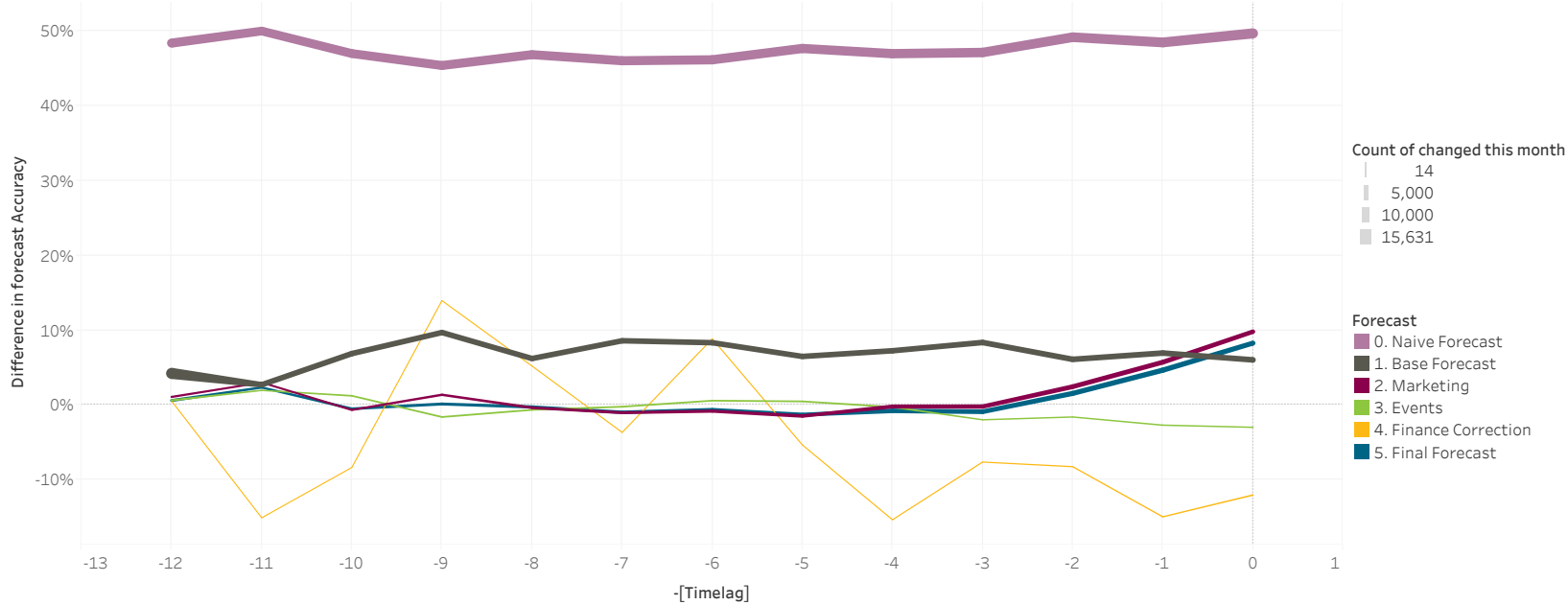


0. Naive Forecast

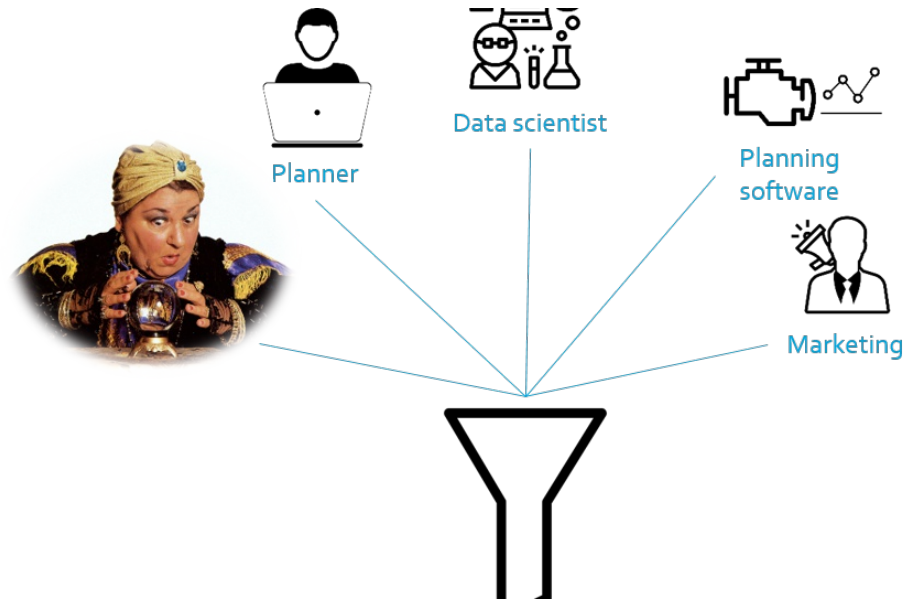


Per customer the forecasts have a different impact. At this retailer marketing adds a lot of value since 5 months ahead..

Added value compared to last forecast



Which forecast is the best?



Measure!!

With measuring added value you can:

- Save people who do not add value
- Improve your forecast by focussing where it matters

Focus on where it matters!

