



OPTIMA

Measuring incremental campaign revenue
beyond classical A/B testing

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Hi there!

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Air France & KLM



320 Destinations

In 100 countries. And many more with our global partner network.



328 Aircraft

Including our new Airbus A321 Neo!



94M₊

Passengers are welcomed on board per year



Digital Marketing

15 different channels

22 local offices

2 airlines - Air France KLM



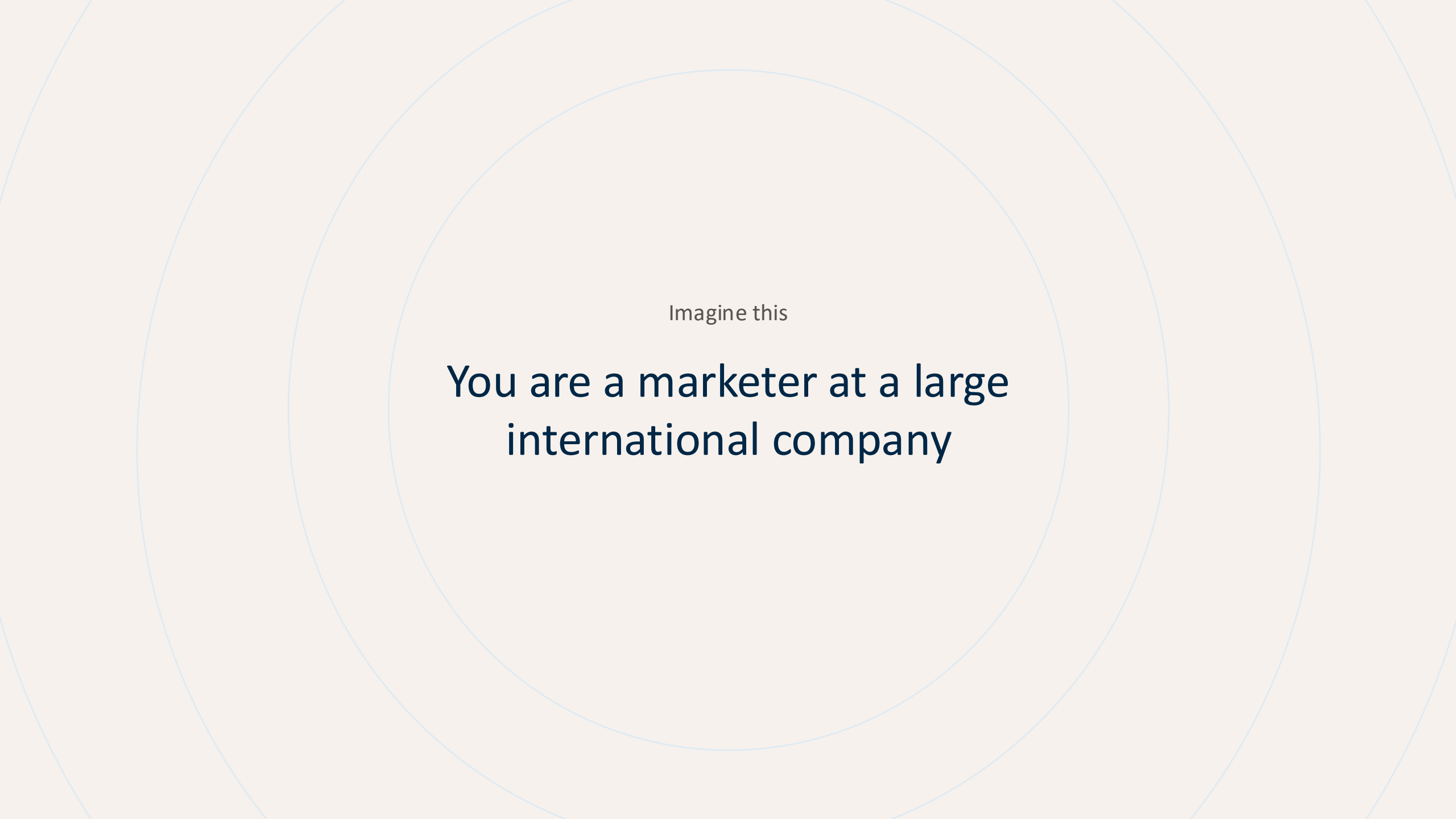
Global campaigns

900+ Central and local campaigns



27M₊

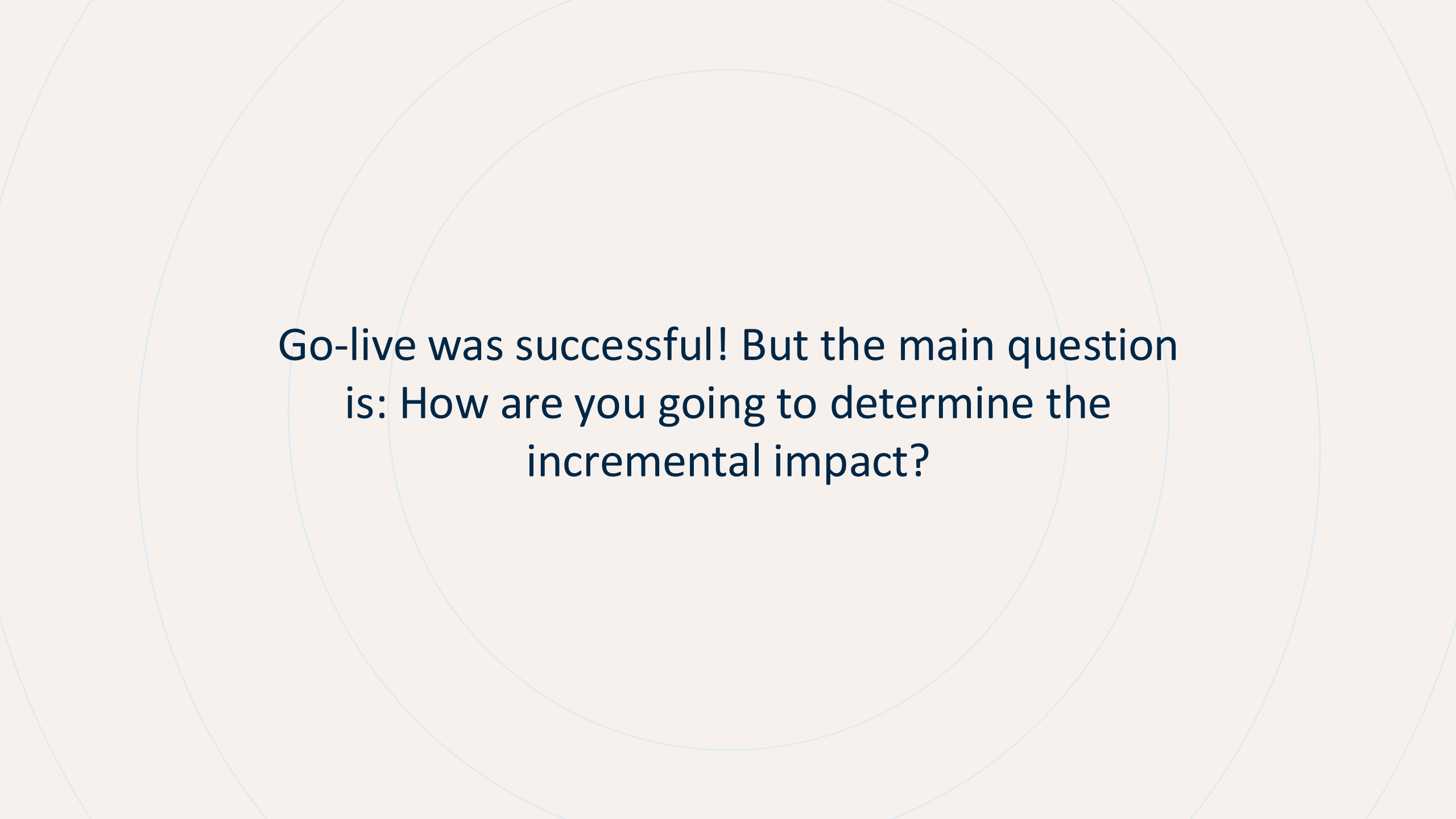
Fans & followers on our social media channels



Imagine this

**You are a marketer at a large
international company**

And you and your team have just launched a big
global sales campaign 🌍

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Go-live was successful! But the main question
is: How are you going to determine the
incremental impact?

A/B testing is the gold standard, but..

Logistical
complexity

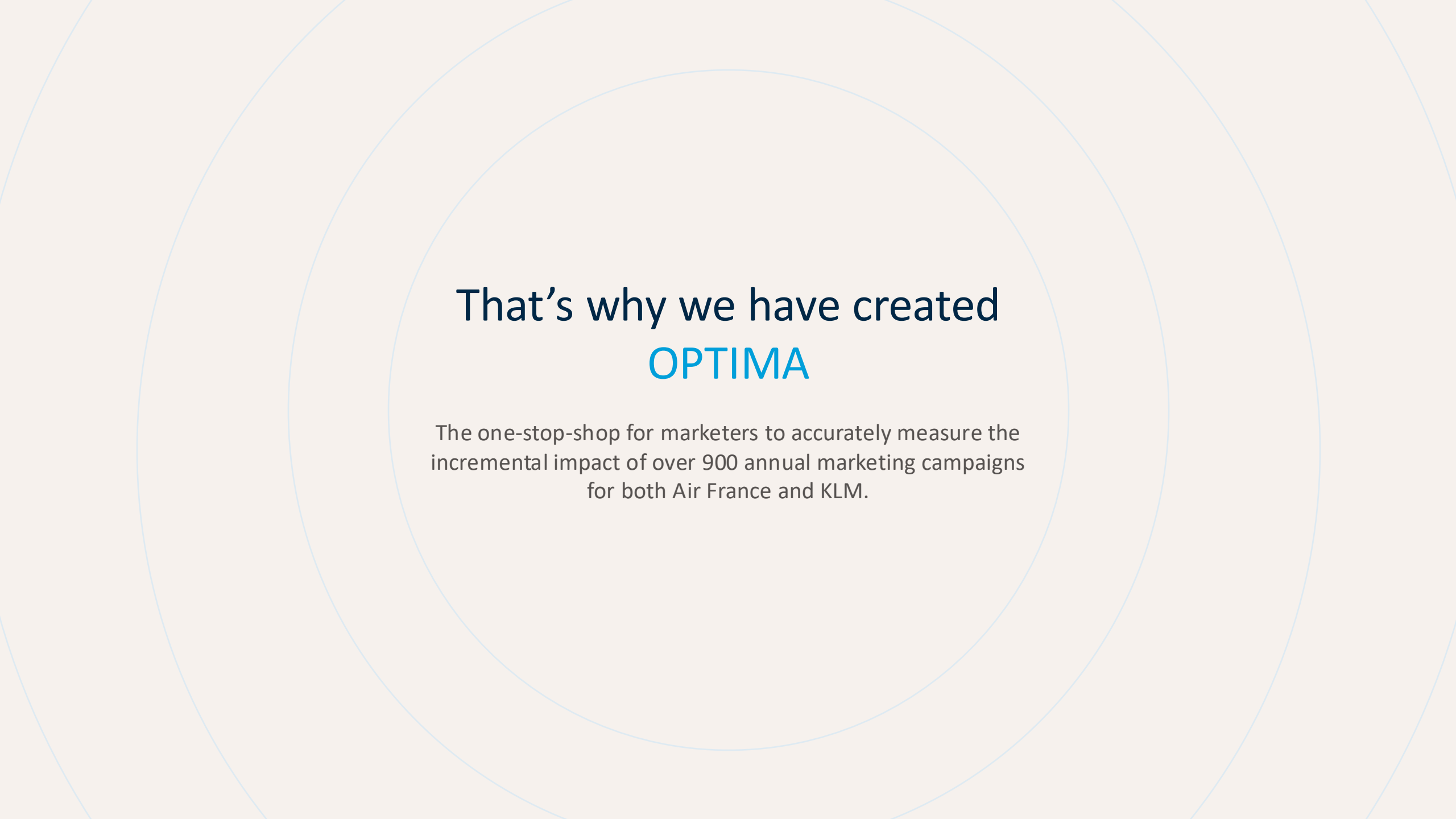
Running A/B tests across multiple countries and channels can be a logistical nightmare

Opportunity
costs

Revenue loss from groups that don't see the campaign

Organizational
complexity

Big variety of skills and backgrounds. How can we make sure everyone looks at the performance in a similar way?

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That's why we have created **OPTIMA**

The one-stop-shop for marketers to accurately measure the incremental impact of over 900 annual marketing campaigns for both Air France and KLM.

Before

In the 'old days' you had to...

For over 900+
campaigns

For 2 airlines

Gather data from
15 channels

Design your
experiment setup

Run the analysis
for 65+ market

Draw conclusions
without getting
overwhelmed!

After

Before

After

Now with OPTIMA...



Automated and quick

Optima provides quick and automated results of the complex data



Easy to use

Easy to interpret the data without any technical knowledge or data scientist needed



Reliable and validated

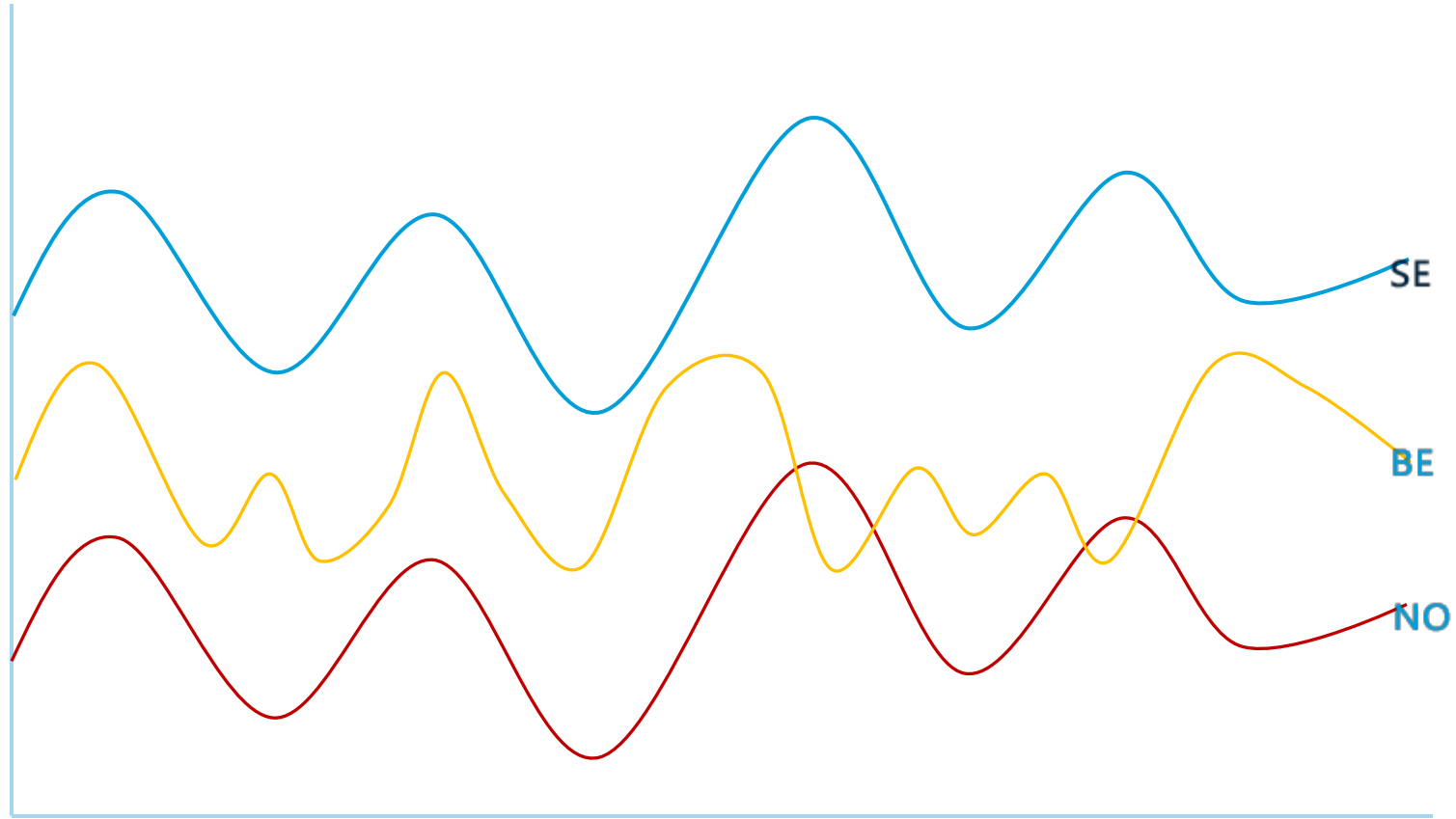
Reliable results with validation methods similar to A/B testing

How does this work?

OPTIMA models the counterfactual (*what would have been*)
based on statistically strong reference markets.

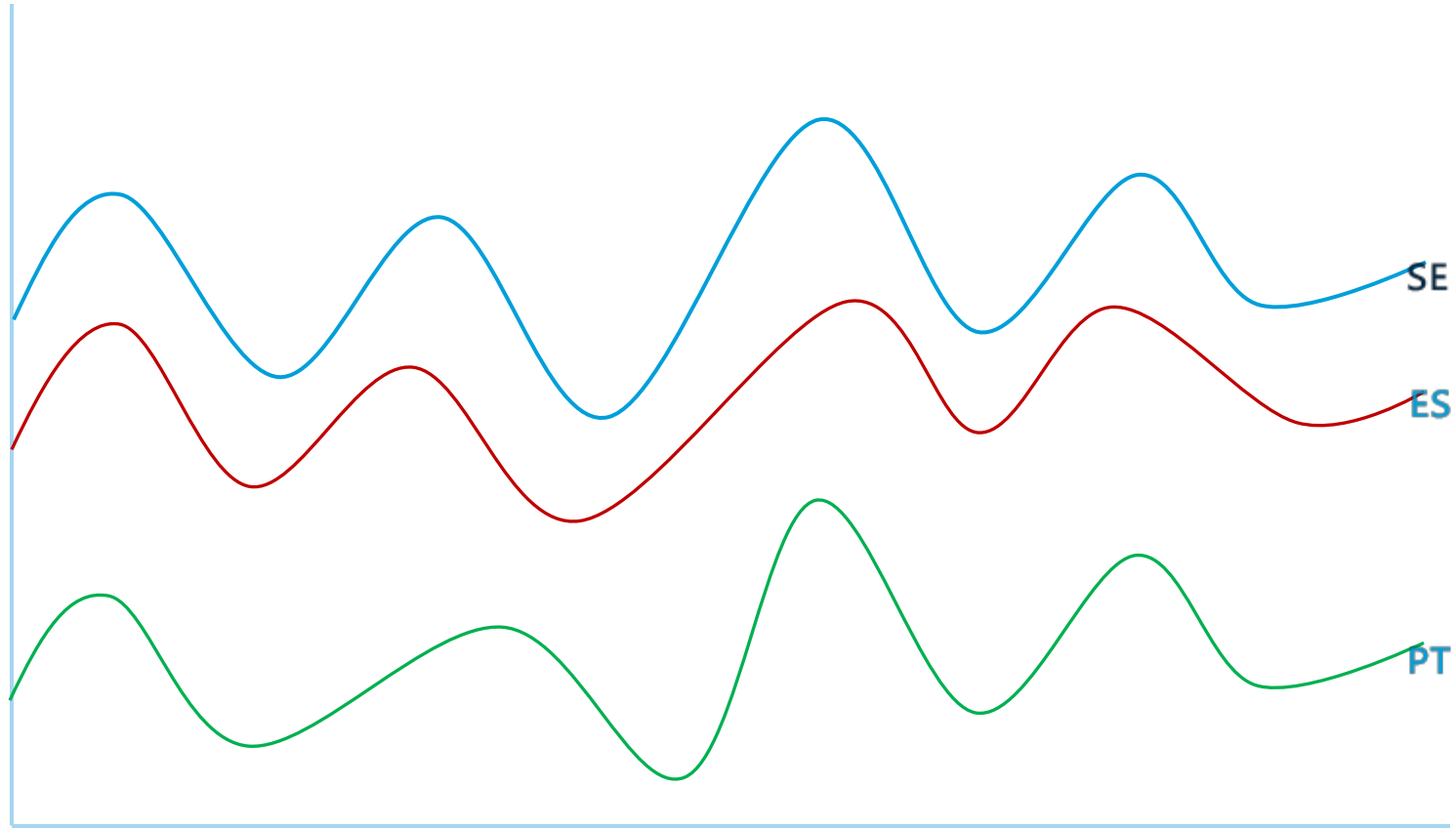
01. OPTIMA finds comparable markets

It searches for markets with a similar *correlation*



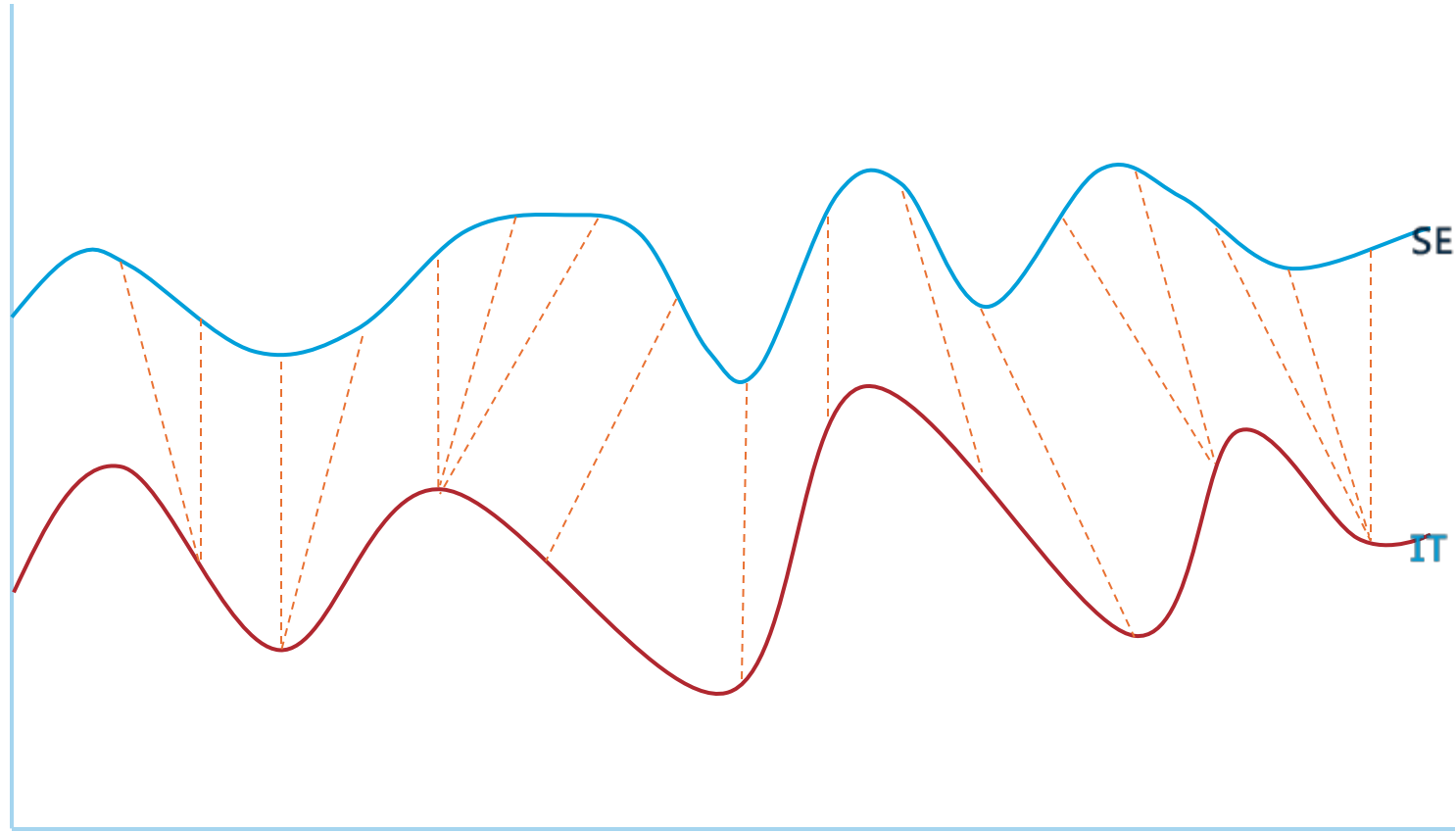
01. OPTIMA finds comparable markets

And it searches for markets with a similar *distance*



01. OPTIMA finds comparable markets

Dynamic time warping is used to identify markets with similar sales patterns, even if the timing of events differs.



01. OPTIMA finds comparable markets

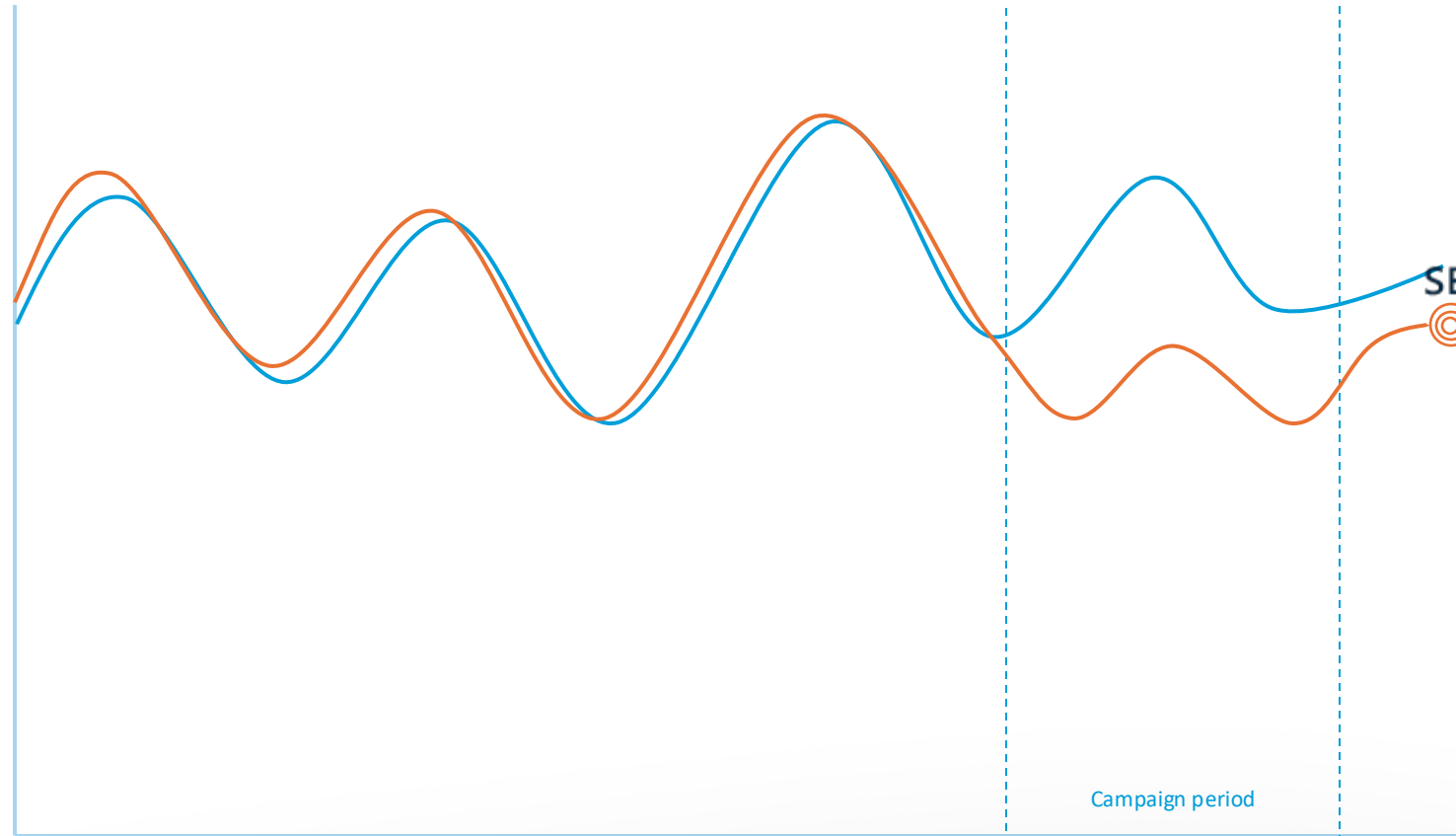
Dynamic time warping is used to identify markets with similar sales patterns, even if the timing of events differs.



References are selected using **pre-campaign performance** across multiple years

02. OPTIMA applies statistical modelling

It applies *causal inference techniques* to predict the counterfactual



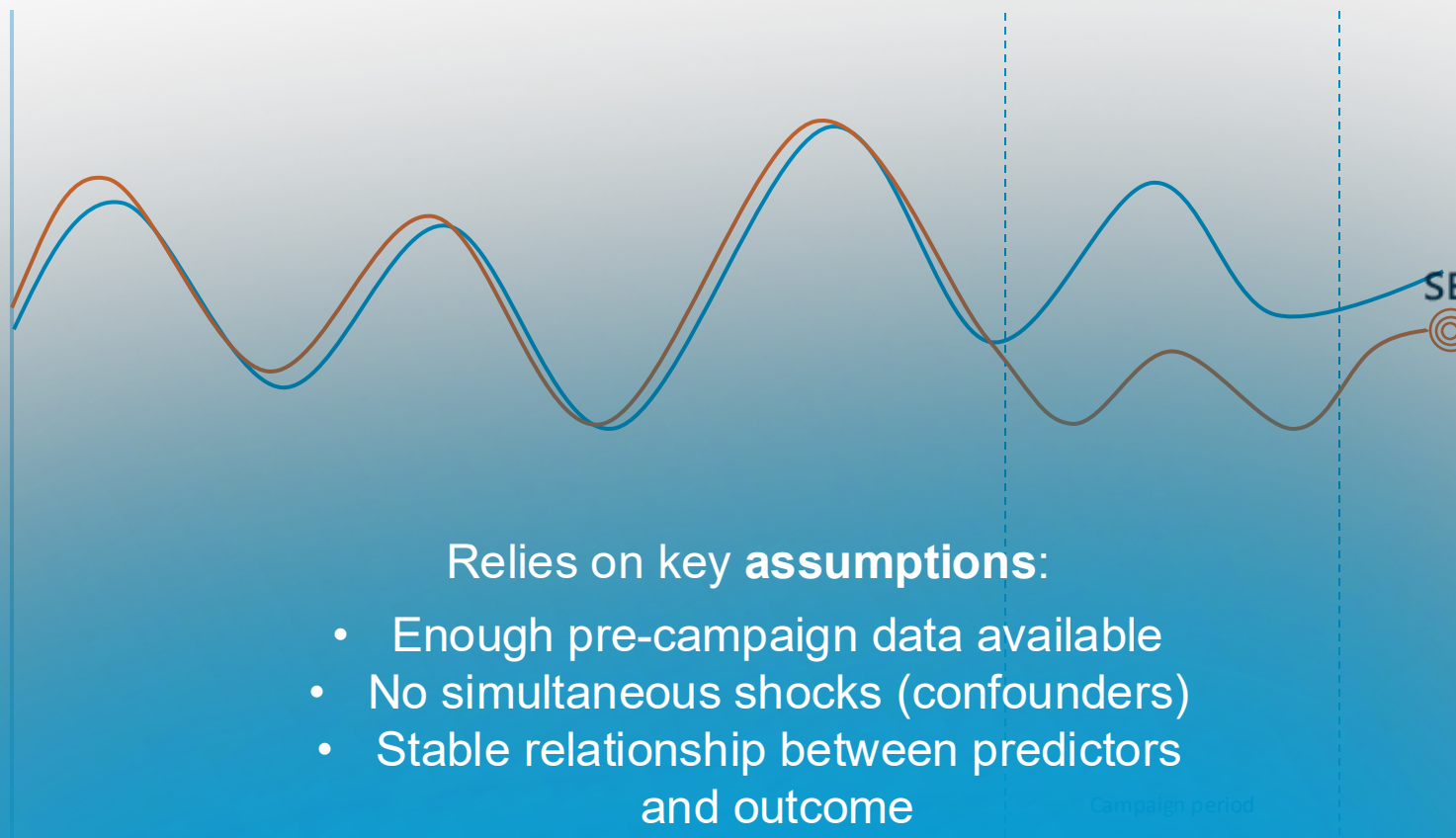
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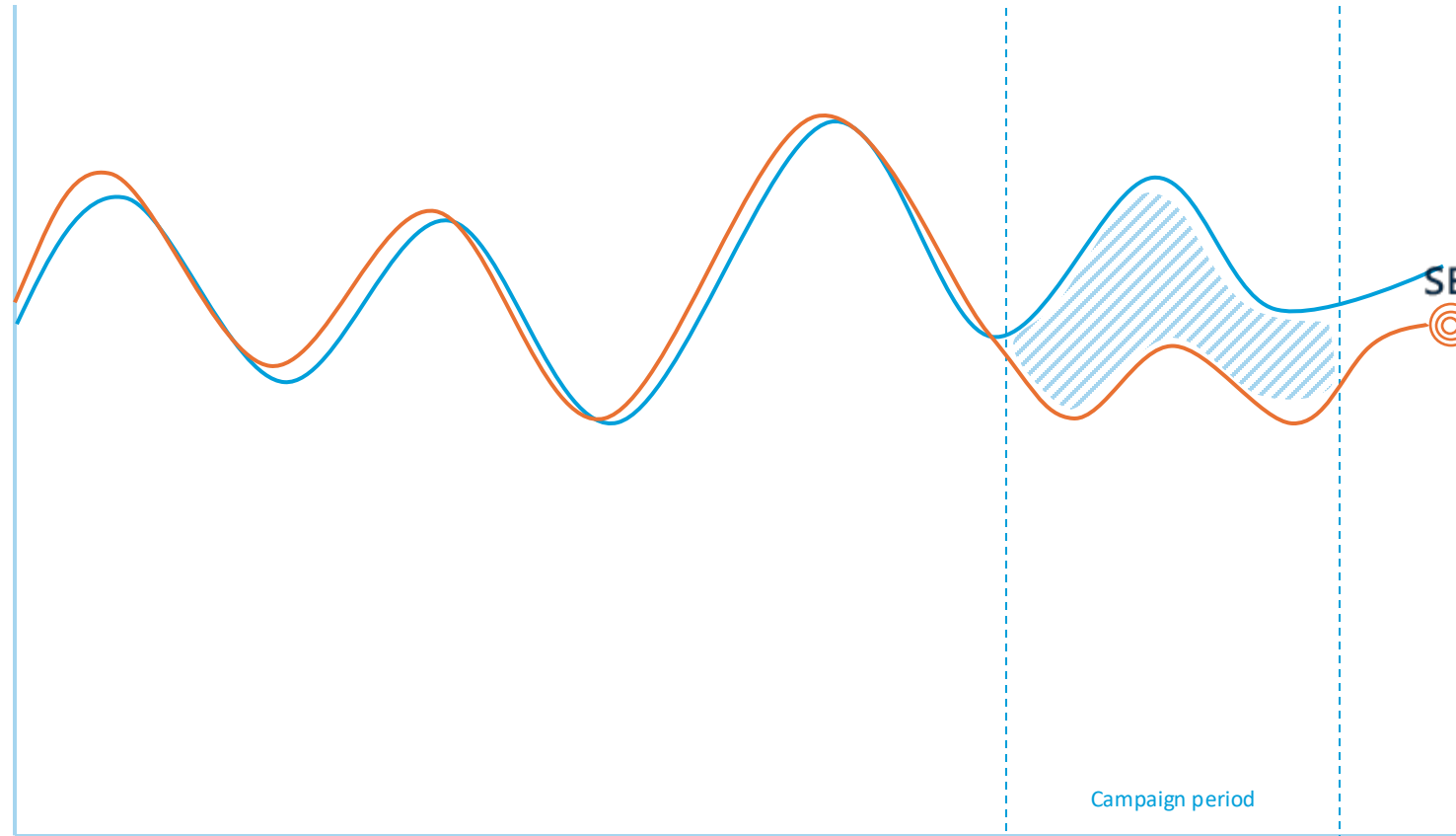
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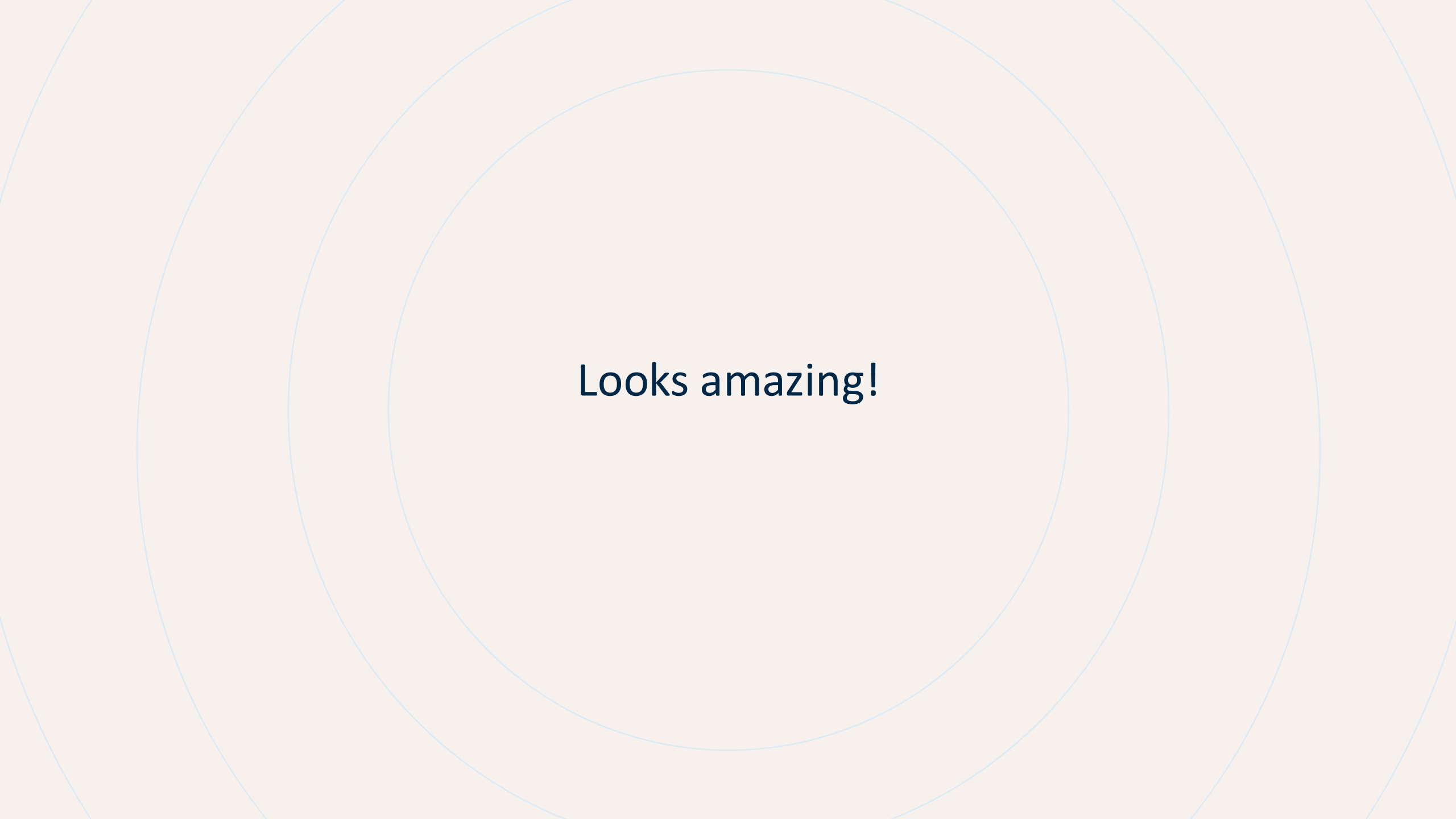
It applies *causal inference techniques* to predict the counterfactual



03. OPTIMA determines campaign impact

The difference between observed and predicted results indicates the campaign's incremental impact



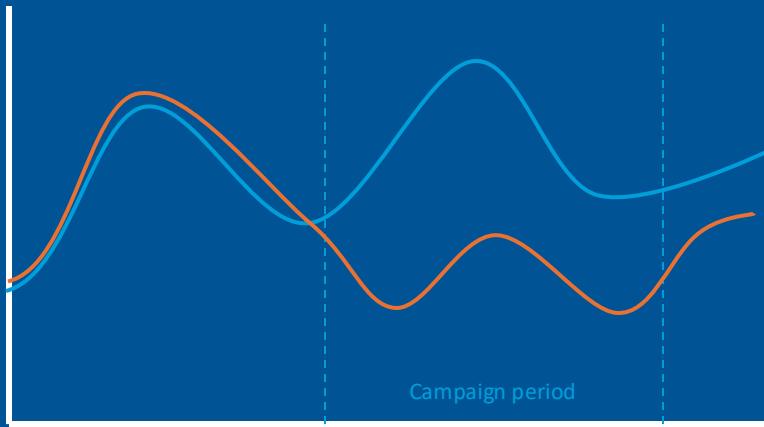
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Looks amazing!

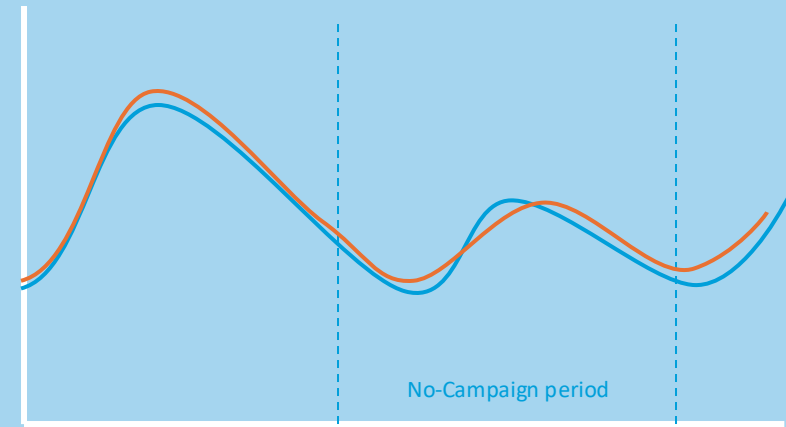
But, how do we know this works? 🧐

By checking our assumptions...

During a campaign, we accept H_1 when we observe a significant effect

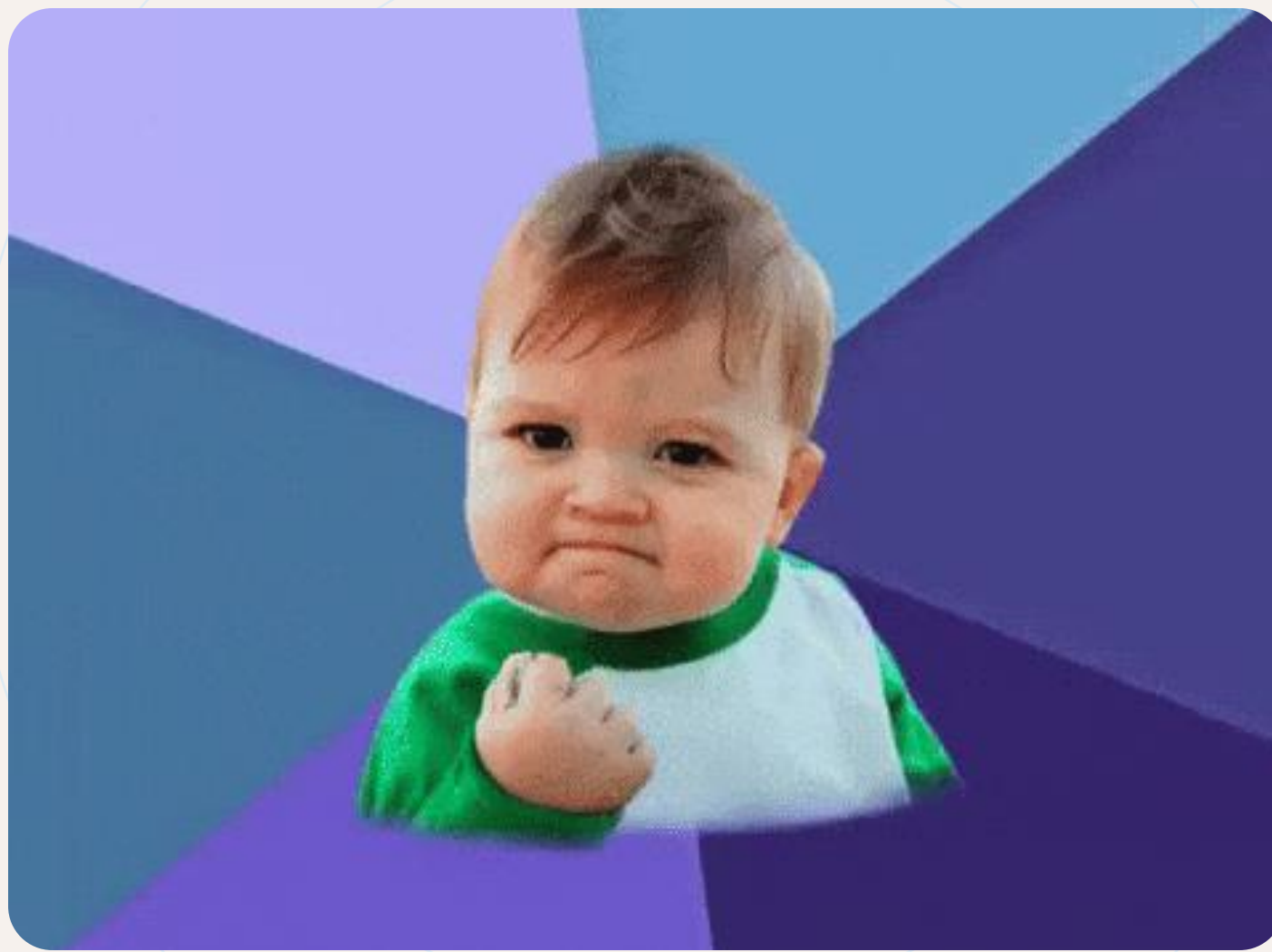


With no campaign running, we expect to observe H_0 consistently



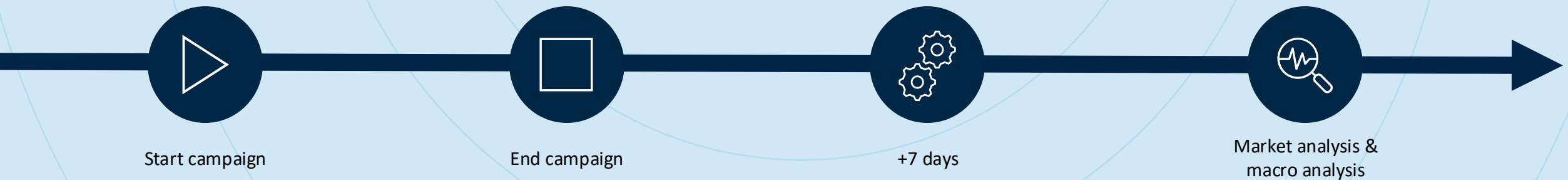
The image features three concentric circles centered on a light beige background. The circles are drawn with thin, light blue lines. The text "That is exactly what we saw!" is centered within the innermost circle.

That is exactly what we saw!



How does this work, in practice?

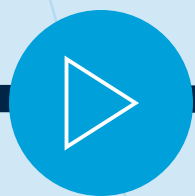
OPTIMA is built in-house and hosted on Google Cloud and the results are exposed in PowerBI



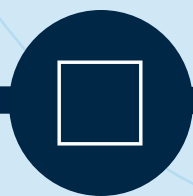
Planning



Big Query



Start campaign



End campaign

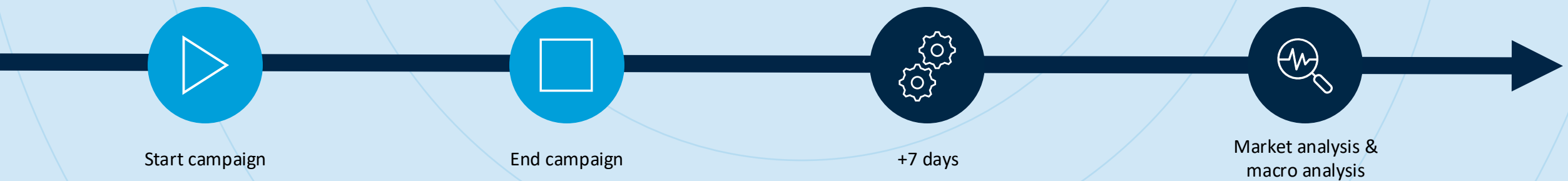


+7 days

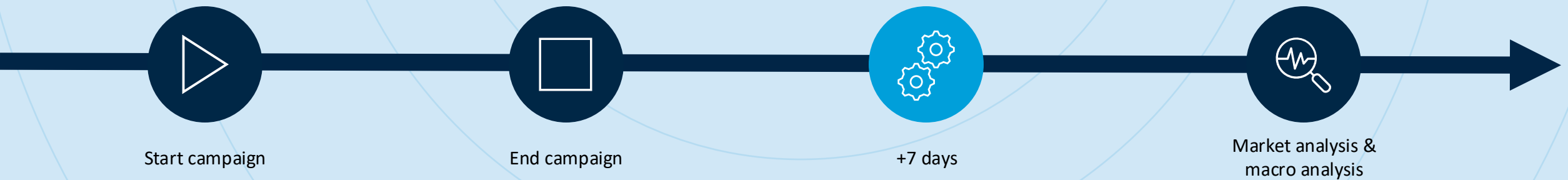


Market analysis &
macro analysis

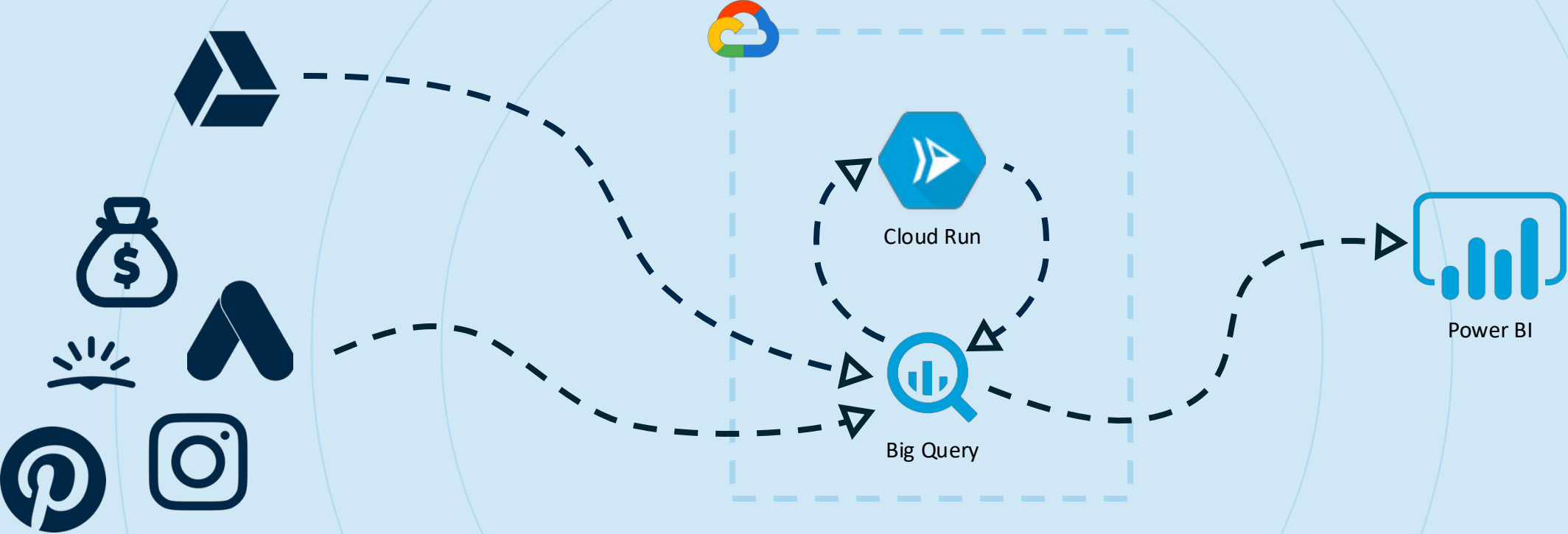
Gathering data



Run the model



Analysis

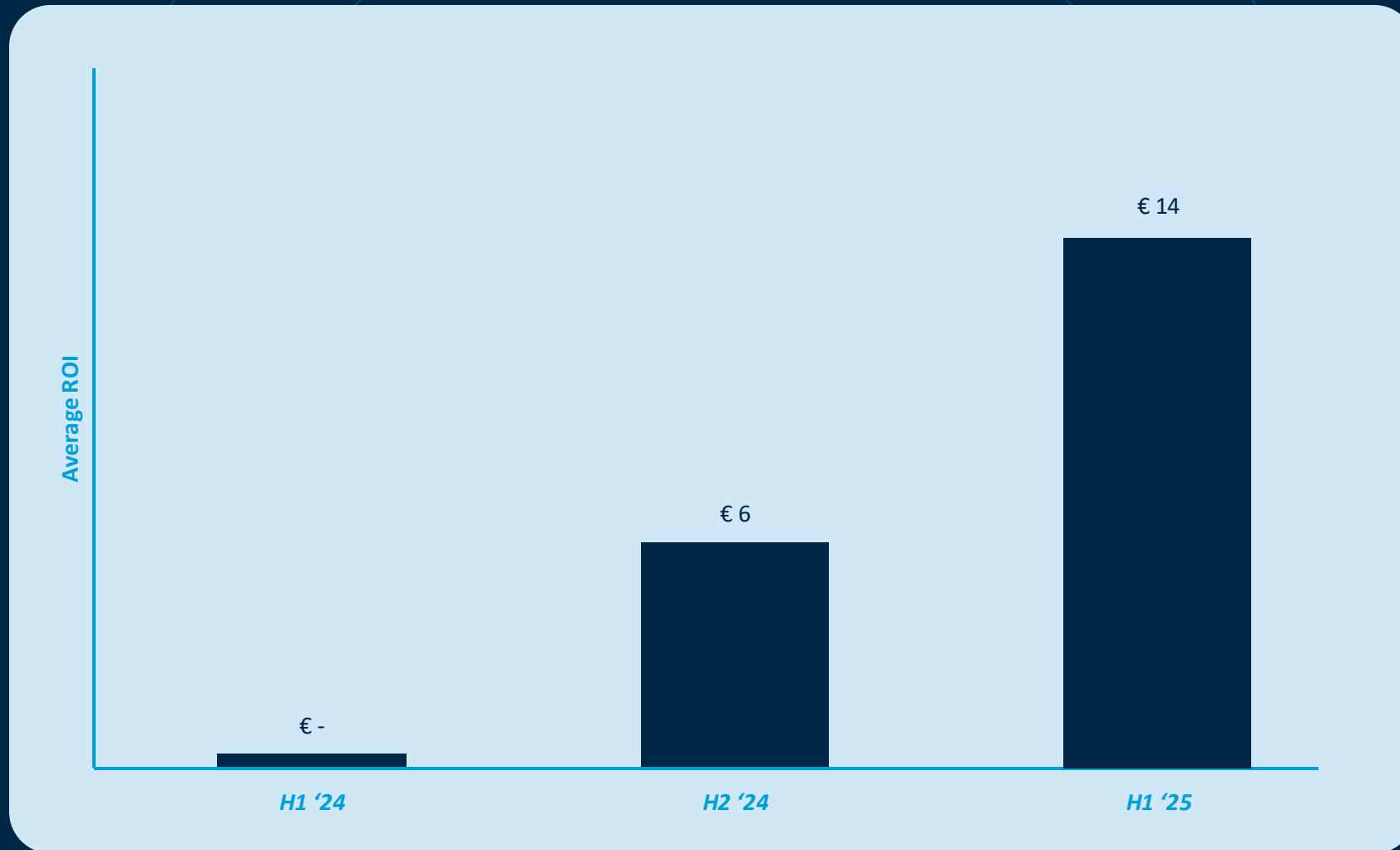


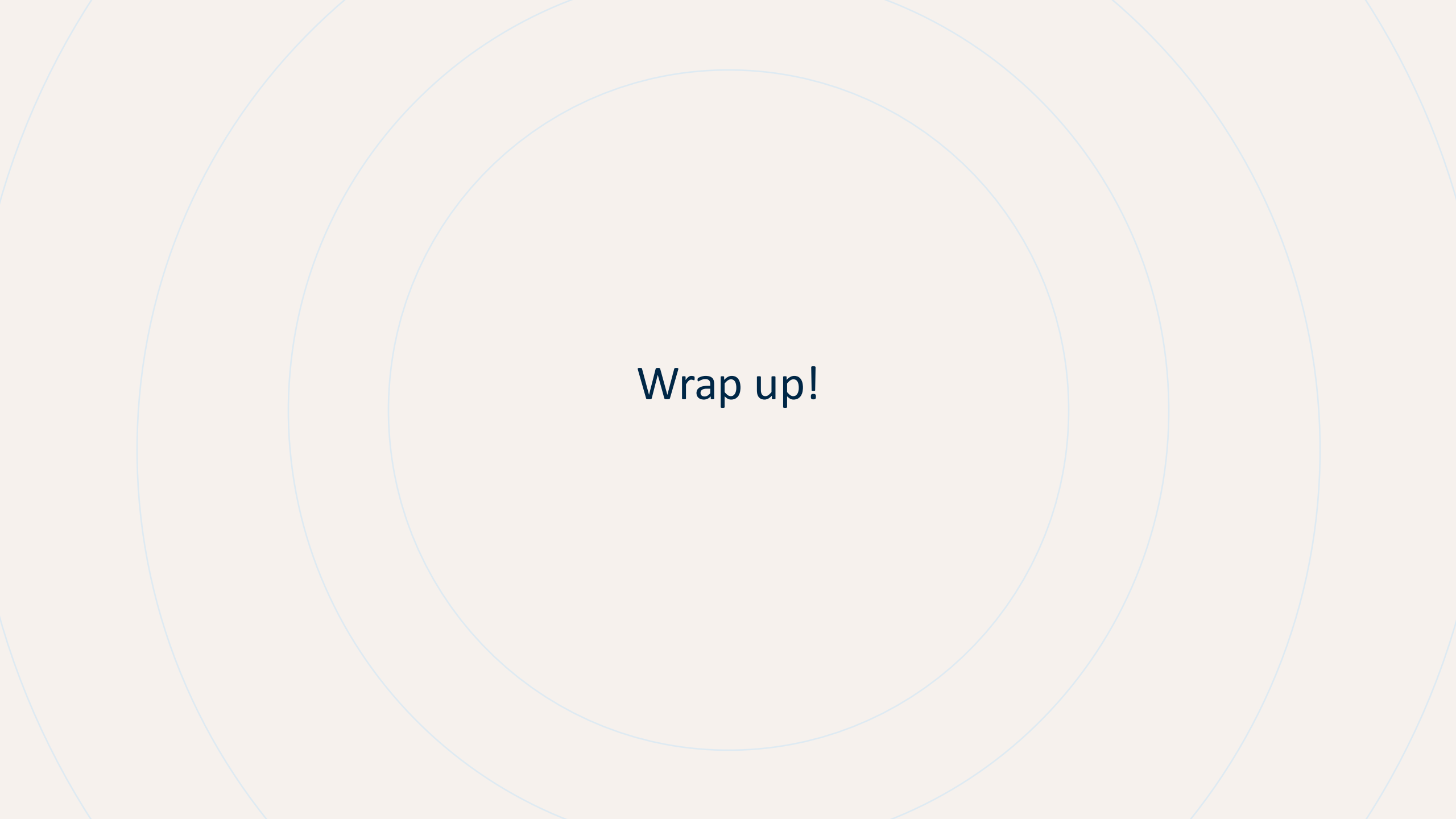
Does it help us?



Learn, assess and iterate

Improving our concept 'Sunrise Deals' every iteration



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Wrap up!



The new standard within Air France-KLM

OPTIMA is nearly five times more accurate than Air France KLM's previous methods



Keep evaluating and improving together with TNO

Together with TNO we are looking into the application of quantum computing for OPTIMA



Testing new and revised concepts on performance

Adapt campaign concepts based on the learnings of previous campaigns



Thank you!

Any questions?

DAPHNE RAPPANGE | TIJMEN KORT