

Conversion Lift based on geography experiment



Pitch Template

Measure causal,
incremental
effects of your ad
spend changes
with GeoX

What do Geo Based conversion lift deliver?



Understand the incremental effects of marketing

On clicks, transactions, revenue, etc.



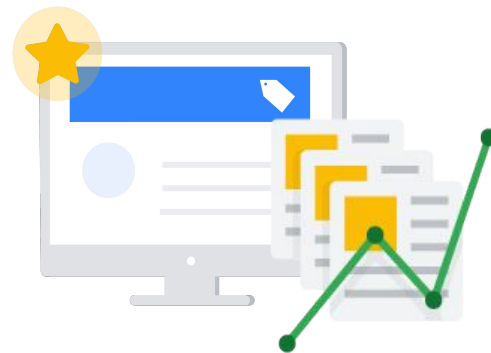
Establish causality

Isolate what happens as a **direct result** of digital marketing.



Direct actionability

Scientific evaluation of media plans.

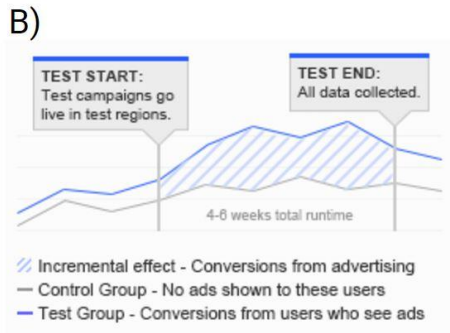


What is a Geo Based conversion lift?

Geo Based conversion lift measures incremental returns of advertising spend

By separating countries into treatment and control groups* **Geo Based conversion lift can attribute any uplift in success metrics** between the groups exclusively to the advertising spend (see shaded blue regions in graphic).

This enables you to understand the **incremental effects of your ad-spend** changes.



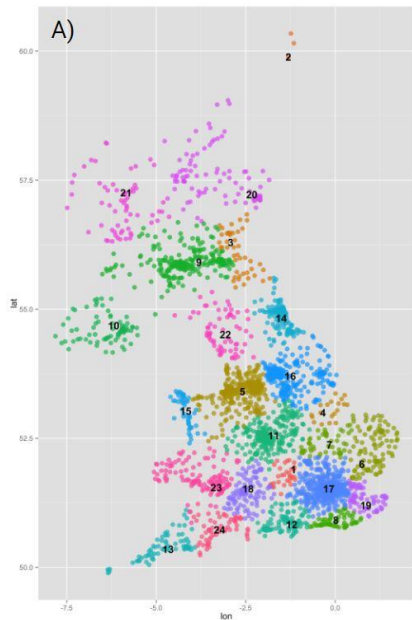
A) Schematic of treatment and control geos within a country and B) example of relative uplift in conversions between two groups

*comprising non-overlapping geographic regions - e.g. postal or city codes

Geo Based conversion lift minimizes contamination with Generalized Marketing Areas

GMA's are composed of aggregated postal codes and are drawn such that their boundaries run through the least populous areas possible, and do not cross well known commutes.

This **minimises 'contamination'**, whereby a user could travel to a test GMA, from a control GMA, and be exposed to advertising.



A) Schematic of the United Kingdom divided into custom GMA's by drawing boundaries through regions of low population density, minimizing potential-cross contamination between treatment and control groups.

Geo Based conversion lift Key Benefits

Proprietary + Confidential



Automatic backend geo diversion

Removes the need to manually change geo targeting within test campaigns



New, advanced methodologies

Incorporate Trimmed Match into core tools and automate experiment design process



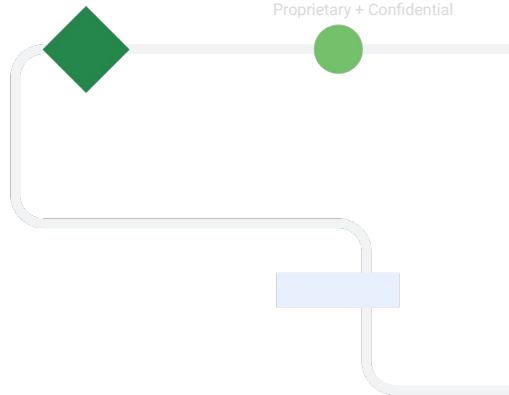
Automatic conversion integration for both app + web

Integration for Google Ads & Floodlight conversions on web, Firebase SDK conversions on app.
You can still rely on your own CRM data.



Support for DV360, Performance Max, Demand Gen and iOS

Integrate GeoX natively in DV3 and Google Ads with automatic geo diversion



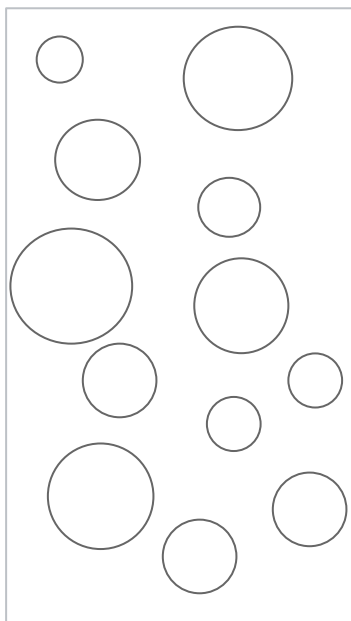
Integrating new measurement solutions to make studies more agile

For Conversion lift based on Geography we will work with your Google Ads tag infrastructure to report results in a automated way to simplify test design.

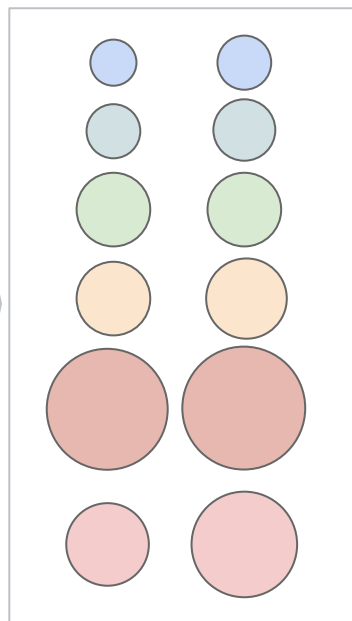
Results are reported using **pre-attributed conversions**, meaning conversions are not attributed/linked to a specific cookie or ad interaction (e.g. click or view). Instead, we focus on the geo cluster the conversion was generated in.

Trimmed Match is our most-advanced methodology

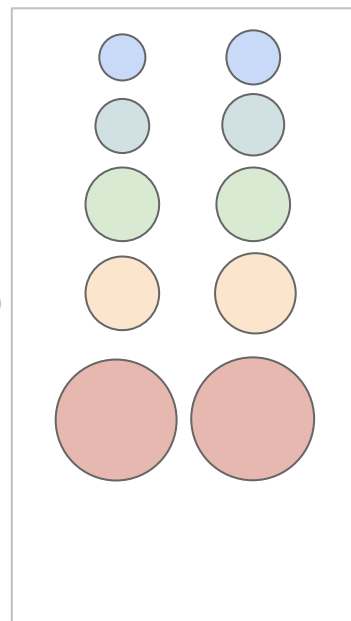
Match geos into pairs based on size and rank according to similarity score based on pretest training period



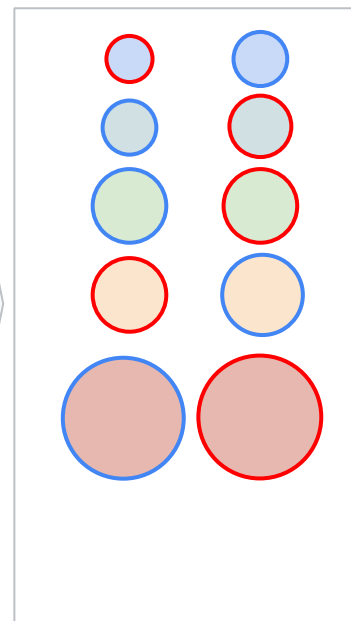
Geo
Pairing



Filter
pairs to
improve
precision



Random
assign-
ment



Why Trimmed Match?

A more precise alternative to TBR & GBR

Geo Based Regression

- Aggregates the pretest/test period within each geo
- Accuracy improves with more geos
- Estimates the iROAS by inferring model coefficients
- Relies on proper weighting and there being no confounding variables (e.g. bad weather could affect cost and revenue simultaneously)

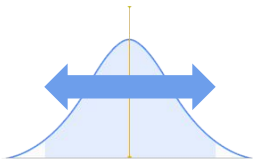
Time Based Regression

- Aggregates each time point within each experimental group
- Accuracy improves with a longer pre-test period
- Estimates the iROAS by predicting counterfactuals
- Relies on a stable linear relationship between treatment and control. The assumption itself cannot be tested. Potentially problematic for high seasonality.

Trimmed Match

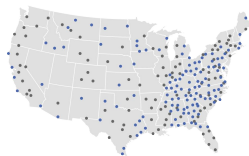
- Relies on randomized matched geo pairs
- Accuracy improves with more well-matched geos
- No modeling, directly compares the observed iROAS1 within each pair and trims poorly-matched geos. Most robust against outliers.
- Assumes iROAS is the same across geos. Important: this assumption can be tested.

Implementing



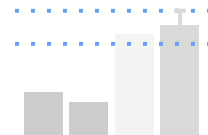
Test Design

Optimize experiment parameters (duration, spend requirement, estimated accuracy) to maximise statistical power of the test.



Experiment

Automatic backend diversion of ad spend to sub-regions. Expose some fraction of the region to ad-spend change, observe behavior.

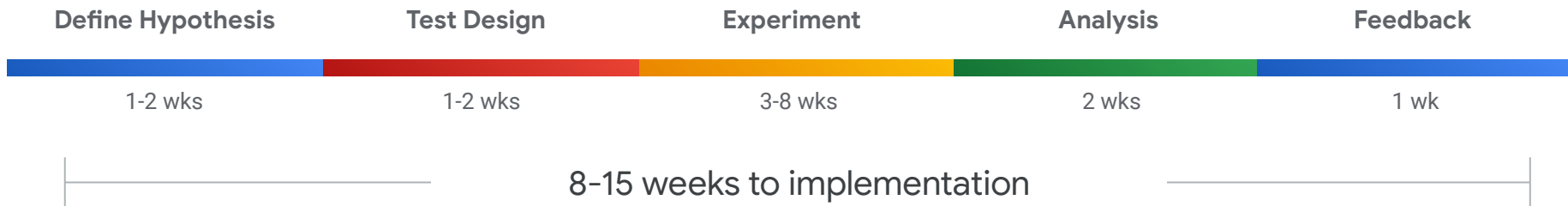


Analysis

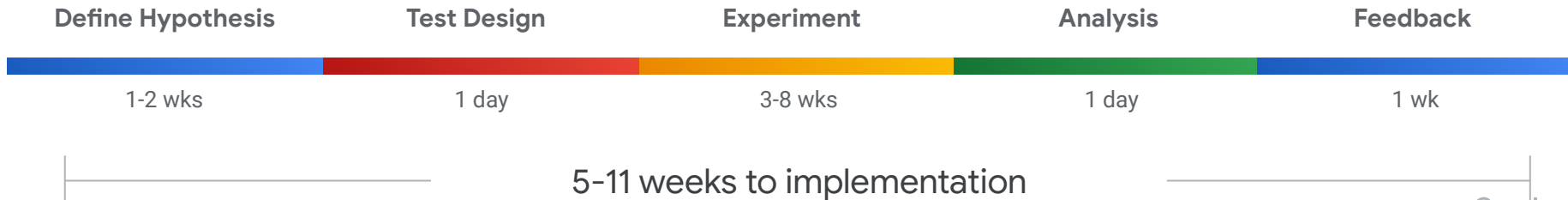
Measure incremental clicks, sales, and other offline response metrics. Isolate what happened because of the advertising under test.

Same outcome in less time

Geo Experiments 1.0 Timeline



Conversion Lift Based on Geography Timeline



Test design

A well defined hypothesis is fundamental to any experiment design

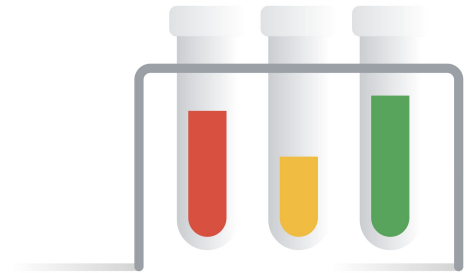
You must be able to clearly state:

- **Media strategy under investigation** - e.g. Discovery combine with Youtube.
- **Ad spend opportunity** - based on your goals, the available ad inventory within a given region.
- **Response metric** -
 - **Value based:** measure incremental return on ad spend (iROAS), e.g. web + app revenue.



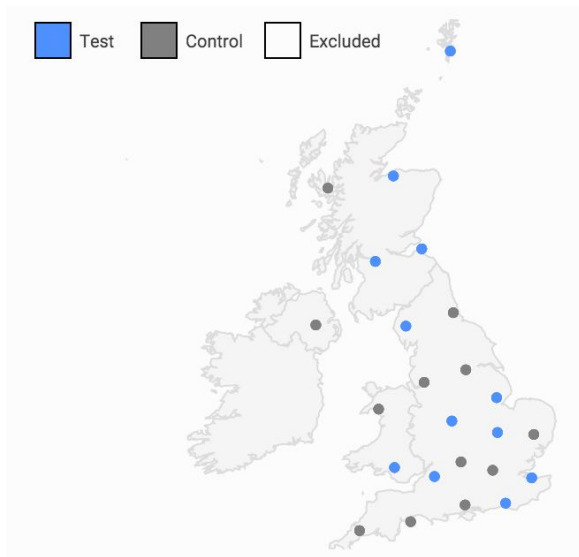
Pre-analysis output

- 1 Recommended test length
- 2 Ad spend change required
- 3 Estimated confidence interval and test power
- 4 Assignment of treatment and control geos



Experiment

Execution



GeoX 2.0 will automatically apply geo-based diversion on the backend, by changing spend within the test group (per the experiment design).

Do's and Don'ts during test period

Do's

- 1 Apply the recommended budget nationally across all campaigns being measured; during the experiment this spend will be diverted towards the geo group which receives ads and withheld from the “dark” region.
- 2 Monitor budget consumption to hit targeted experiment budget

Don'ts

- 1 During the experiment no regional specific marketing should be live
- 2 Re-distribute the budget to other channel or media
- 3 Implement significant tracking changes, creatives, audiences or other campaigns settings.
- 4 Bidding and budget changes should only occur if it's **your business as usual** (keep in mind that this changes could affect test power)



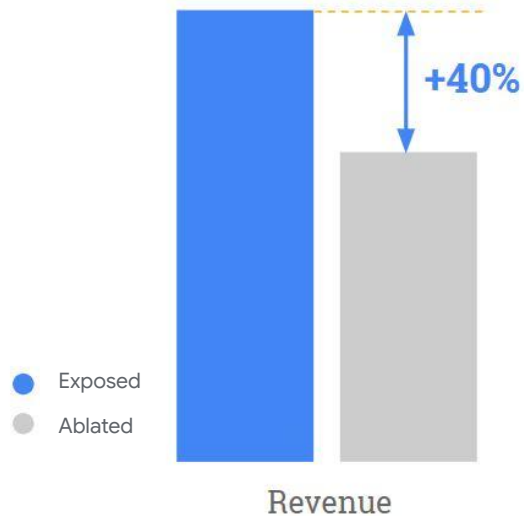
Analysis

Analysis in principle

The fundamental principle of an experiment is to isolate the effect of a treatment by comparing response in the test group to the counterfactual response (i.e., the expected behaviour of the test group given the control group).

By randomly assigning test and control groups the analysis model is able to assume all exogenous variables are evenly distributed between test and control—the only difference between the groups is GeoX designed intervention.

Incremental lift in revenue



A) Powerful insights -- Analysis in principle. Since the output of GeoX will be incremental conversions or revenue we can quantify the impact the ad spend change had on the advertiser's whole business

Reporting

Target iCost
£137,500

Realized iCost
£189,361

Target iResponse
£550,000

Realized iResponse
£1,249,311

Target iROAS
4.0

Realized iROAS
6.6
90% Significant

At the conclusion of an experiment
Geo-Based Conversion Lift will output
incremental cost, incremental conversion
value, incremental conversion, incremental
ROAS (iROAS) and from the above calculate
the incremental CPA (iCPA)*

*Result output mocks can change