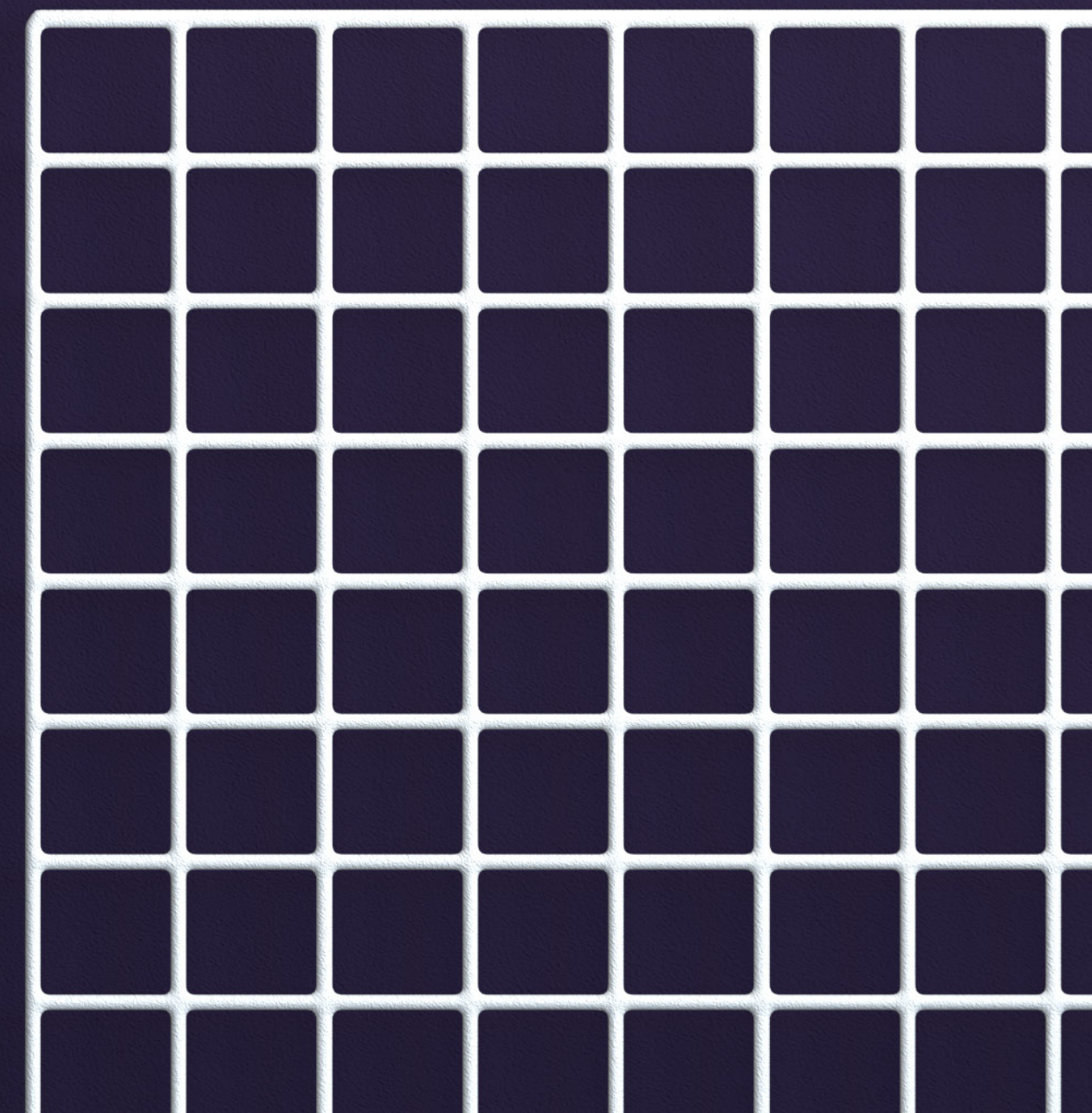
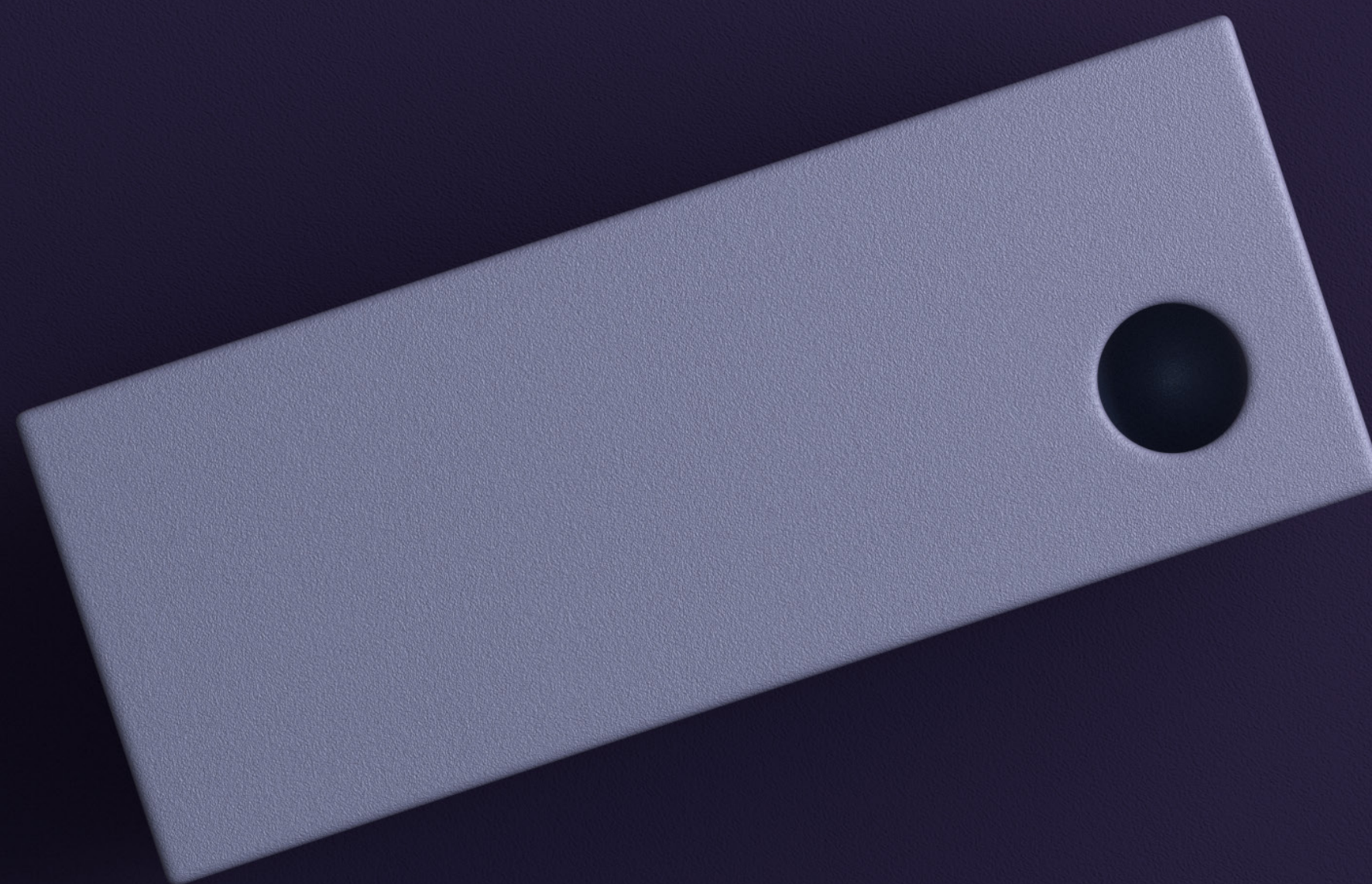
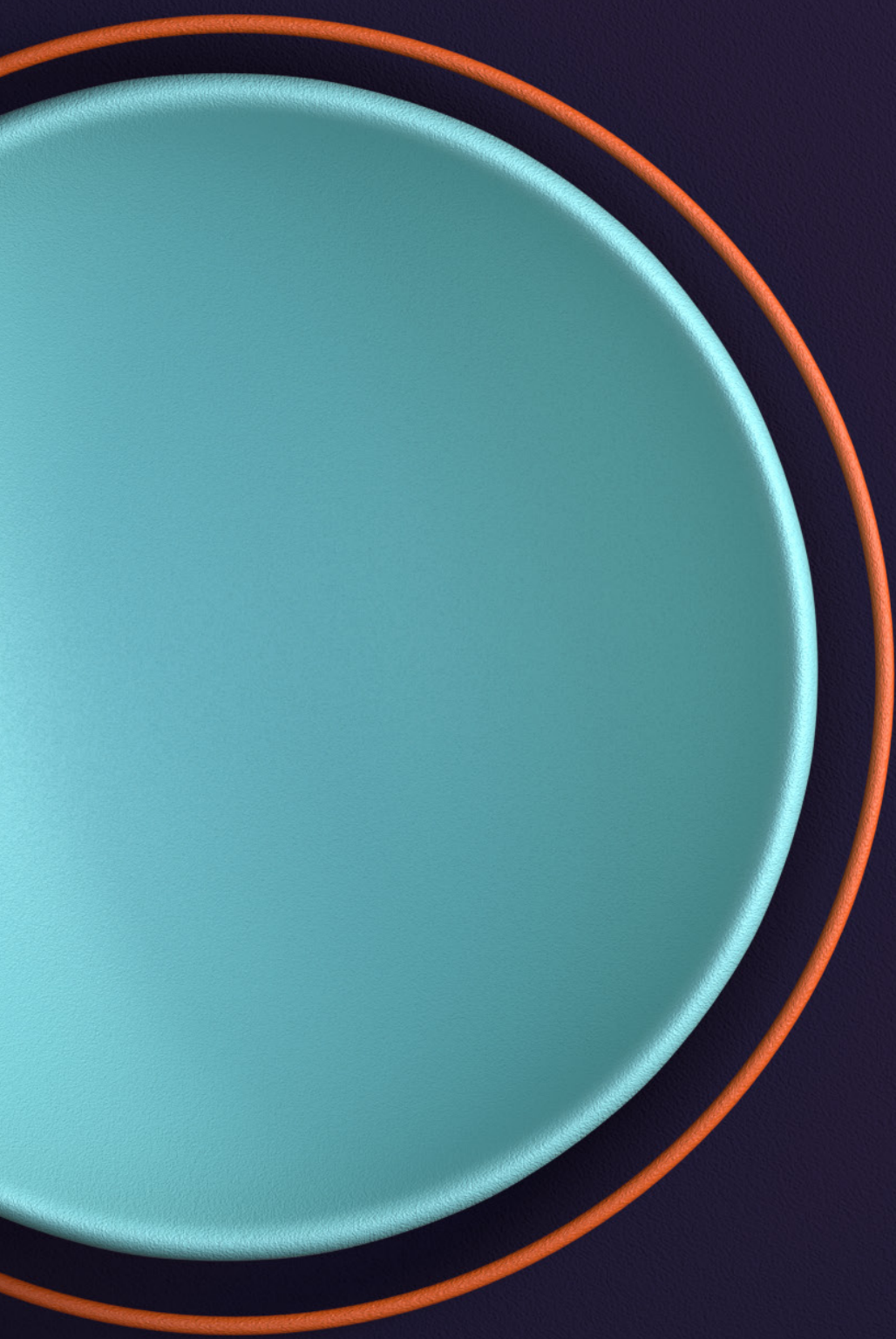
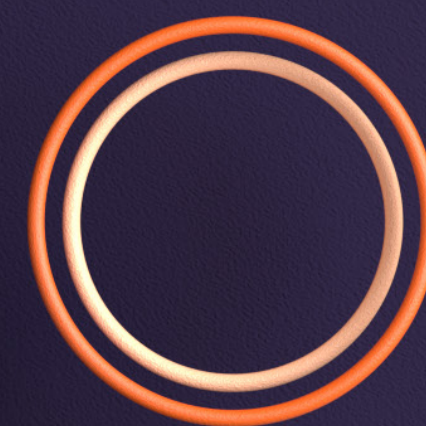


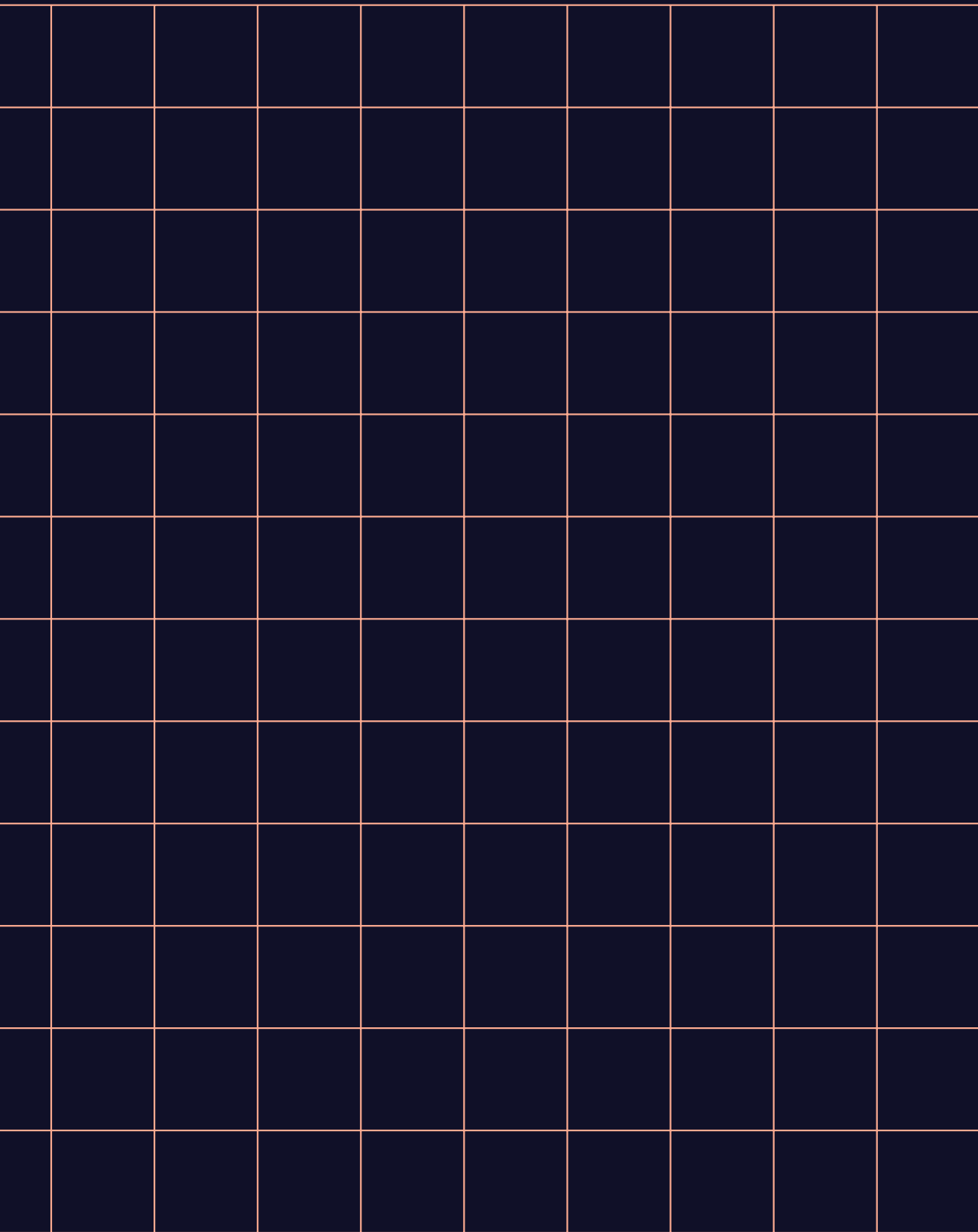
Measuring Digital Advertising in a Multi-Media Context

A Guide and Toolkit



- 02 Background
- 03 What is Cross-Media Measurement and Effectiveness?
- 04 Key Principles for Measurement Success
- 06 Tools and Methodologies
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Background

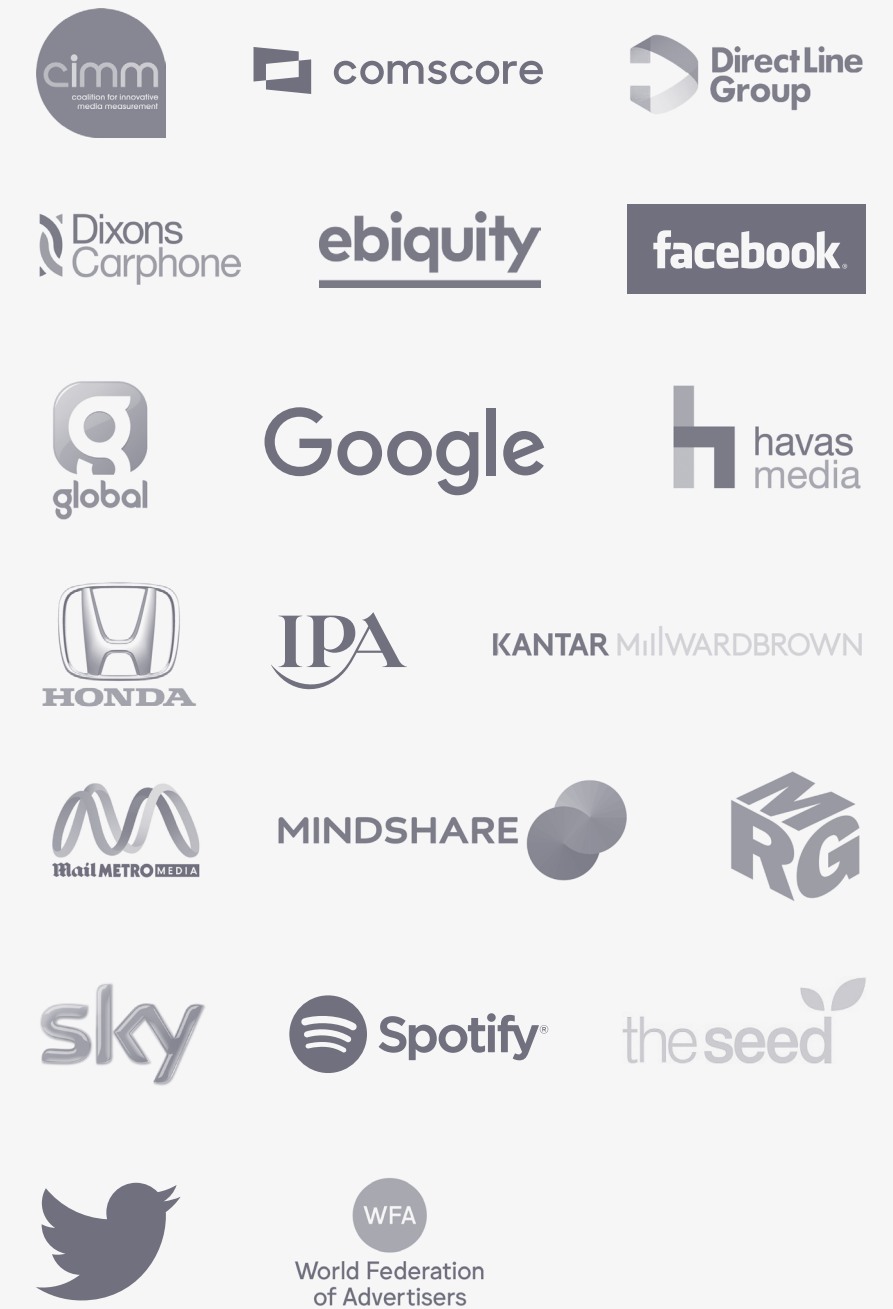


When the IAB UK launched in 1997, our mission was focused on driving the growth of digital advertising. Two decades later, and with £11.55bn spent on digital marketing in the UK (IAB/ PwC Adspend 2017), growth is no longer the most important factor. Now it is about supporting the long-term health of the industry and ensuring it develops in a sustainable way. Born from this, is our vision to “build a sustainable future for digital advertising” and an industry that works for everyone – businesses and consumers alike. Within this, one of our key aims for 2019 is to tackle and address the big issues affecting the digital landscape.

One of the key challenges for our industry is how digital advertising is measured. Our 2018 survey of brands found that 83% of brands view cross-media measurement as their single biggest measurement challenge (IAB UK, 2018). Advertisers are faced with growing complexity and an increasing number of methodologies. This has created silos of expertise in organisations based around specific objectives and tools rather than supporting one unified, balanced approach.

For this reason, the IAB have worked with MTM, our research partner, and a number of experts from across the industry to create this guide and practical toolkit. This guide consolidates current best practices and provides guidance on measuring digital advertising in the context of other media. It sets out the main models and techniques that can be used to measure digital advertising, from big picture approaches (e.g. econometrics) to more granular analyses (e.g. attribution modelling), showing how they fit together and how to use them. The guide concludes with a set of practical templates and checklists for creating your own measurement strategy.

Special thanks to everyone across for their time and contributions.



What is Cross-Media Measurement and Effectiveness?

Advertising measurement can be challenging given the broad array of topics and questions it covers (as shown in Figure 1).

Measurement can mean different things to different functions and roles. As such, there is no silver bullet for 'solving measurement'. What matters is striving for continuous improvement and giving brands clear insight and confidence on what their advertising has achieved.

"The industry continues to face a significant challenge with measuring effectiveness across a fragmented media ecosystem. There isn't a silver bullet but there are many helpful tools and research available to guide us."

Alastair Mack, European Media Manager, Honda

This guide focuses on how to measure advertising effectiveness and business outcomes across different media channels. This is just one of the many aspects of measurement, as set out in Figure 1.

Taking a digital channel perspective – it explains how to think about and measure digital channels correctly within the context of other media by using the best tools and methodologies available.

Digital Media Consumption

- What is being consumed?

Audience Measurement

- Who is consuming what?

Advertising Delivery & Exposure

- What ads were served?
- What ads are seen across which channels?

Advertising Effectiveness & Business Outcomes

- What is the impact of the campaign on brand metrics?
- What is the return on investment?
- What action does the business need to take?

Cross-Media Measurement

- How did the different channels perform individually and as a whole campaign?

Figure 1. Different types of measurement

Key Principles for Measurement Success

Confronted by a wealth of data and available tools, it is important for marketers to be strategic about what they are measuring. Careful planning needs to take place before selecting measurement tools and methodologies. Firstly, brands must take time to define the overall campaign objectives (e.g. whether it's a new product launch, re-positioning the product or raising purchase consideration or awareness). The specific role and objectives of each channel within the ad campaign should be set out, so it is clear what the purpose of each media is. Following this, KPIs can be set against each part of the campaign and then metrics can be selected accordingly. Remember to consider what the long term goals are and how you will measure them, as many measurement plans will focus only on capturing the short term outcomes. For example, the IAB are passionate about removing the overuse of reporting click-through rates, as they can be a misleading metric for success and encourage excessive focus on the short-term.

“Clients often ask us to retroactively measure media – the problems and misattributions this causes could be largely alleviated if media were planned with a measurement plan from the start.”

Michael Salter, Head of Analytics, Havas Media Group

There are five key principles that can help brands prepare for measurement success.

Figure 2.
Five key principles

- Be clear about what you are measuring – map out the measurement activities already happening across channels and then define specific objectives
- Clarify the goal and the target audience e.g. are you building awareness, repositioning the brand, driving sales, which demographic?
- Review the balance of long term brand building and short term activation activities and the role of each channel
- Articulate the role and objectives of each channel in the campaign

Define Campaign Objectives

Set KPIs to Reflect Objectives

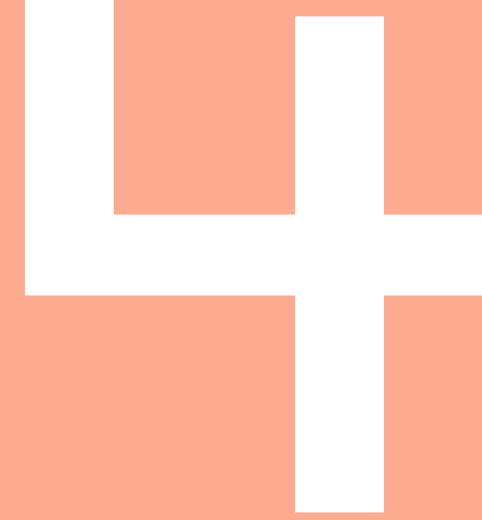
- Select KPIs and metrics that relate to the overall campaign goals – less is more
- Set KPIs in advance – don't be tempted to retrofit them post campaign
- Understand what KPIs are provided by different tools and how different underlying factors might impact their validity e.g. sample sizes for surveys

- Be aware of information gaps and plan measurement accordingly
- Make sure digital channels are properly defined in measurement data (e.g. search, social, online video etc) so it properly reflects your marketing activity
- Aim to continuously improve granularity and coverage (devices, platforms) - meaningful results depend upon data accuracy and comprehensiveness

Organise Data Requirements

- Explore how you could use a combination of tools to provide an actionable insight at each step of your marketing journey
- Design a measurement approach that aggregates the best tools at each step rather than relying on a single methodology
- Integrating multiple tools helps counteract biases and breaks down silos

Integrate Multiple Tools



5 Test and Learn

- Set expectations for initial results – you won't get perfect data straight away and should treat disappointing results as an opportunity to learn
- Use results as continuous feedback to inform future marketing activity
- Consider how to report results to different teams and tailor the level of detail accordingly (e.g. senior management may only require the key insights)

Figure 3. Set the right foundations checklist

The checklist of questions across can be used to help make sure that these principles are applied in practice when planning cross-media campaigns.

Checklist

- ### 1 Define Campaign Objectives
- What is my primary objective?
 - How will my objective feed into my long and short term goals?
 - What do I need to measure across channels to address the objective?

- ### 2 Set KPIs to Reflect Objectives
- Do my KPIs relate directly to my objective?
 - How is the KPI calculated from the method I have chosen (e.g.ROI)?
 - How will I calibrate KPIs from different timeframes, channels and tools?

- ### 3 Organise Data Requirements
- What are the key categories of my marketing spend (particularly within digital)?
 - Where do I have gaps in my marketing channel data coverage?
 - Where can I improve the granularity and coverage of my data?

- ### 4 Integrate Multiple Tools
- What are the limitations of my chosen tool and methodology?
 - What other tools could provide further insight?
 - Who else in my organisation could be working on a similar type of problem?

- ### 5 Test and Learn
- Have I set expectations that measurement is a continuous process?
 - What is the action(s) or decision I will take based on the results?
 - What is the plan to report results and how will that feed into the next marketing activity?

Tools and Methodologies

This guide covers four key tools that brands should consider including in their measurement approach – brand studies, econometrics, attribution and controlled experiments.

There are multiple methodologies within each tool but the focus of this guide is to explain the core methodology, provide guidance on when the tool should be used, and outline the limitations along with a practical example of the tool in action.

When considering which tools to use, brands need to recognise that the right mix will depend on the length and complexity of their product sales cycle, the balance of media spend between online and offline and the use of non-media based promotional tools (e.g. price cuts).

It is also critical that the measurement approach integrates different timeframes and covers the key steps in the customer lifecycle.

Figure 4. Explanatory unified framework for tools

“The crucial thing is making sure that measurement tools are used within one holistic framework and that they are not talking different languages and pushing out different numbers”

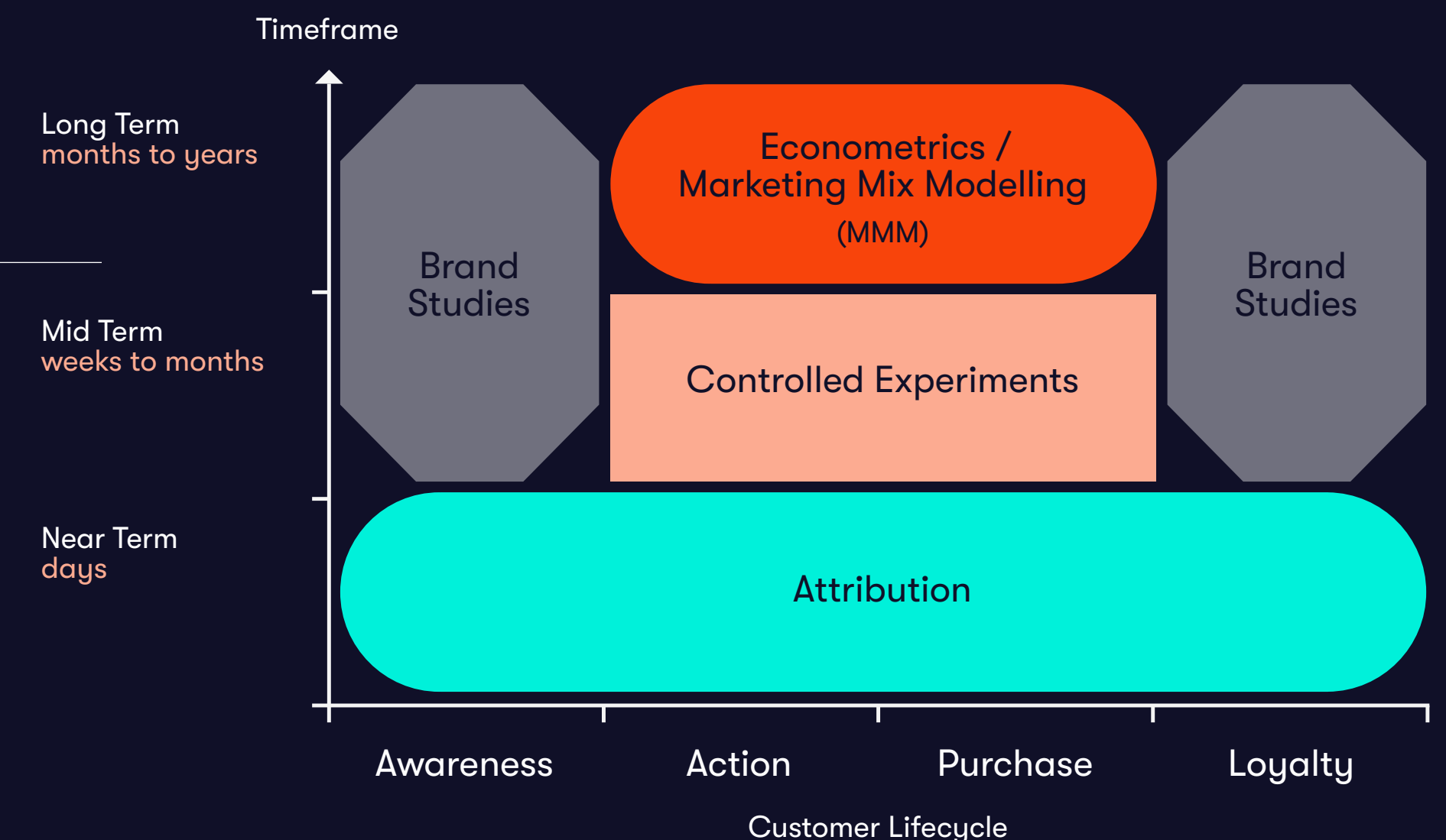
Nick Pugh, Head of Effectiveness UK, Ebiquity

“We are concerned that measurement is becoming more segmented and too granular to provide big picture insight. We focus on combining tools to provide clarity on key overarching questions and tying everything back to a clear ROI.”

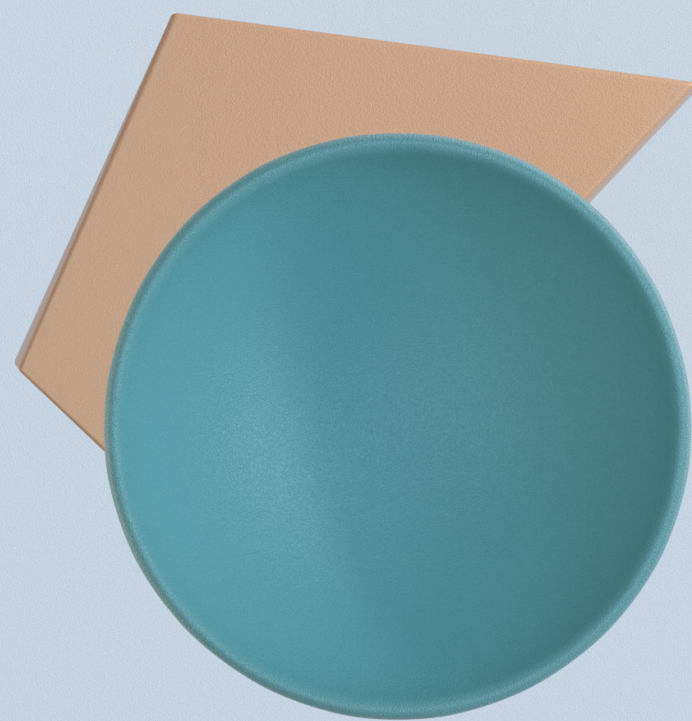
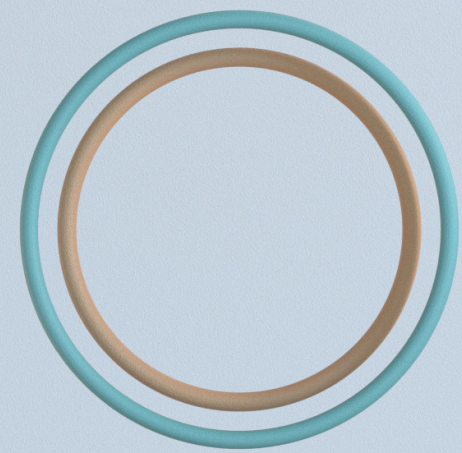
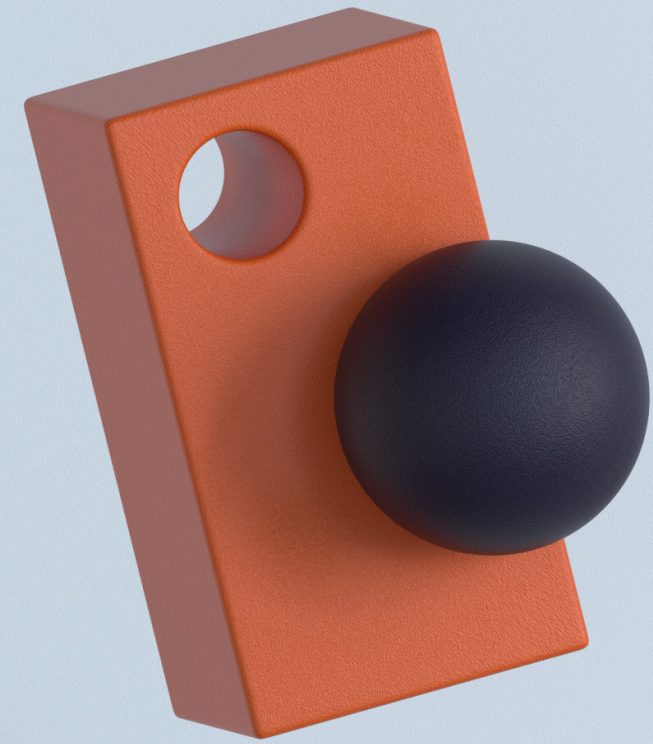
Anthony Burt, Advertising Manager, Dixons Carphone

Figure 4 gives an example of how the major tools can be combined to cover different timeframes and provide insights for each step in the customer lifecycle.

Tools can be deployed across the customer lifecycle and for varied timeframes but offer the most actionable insights at mapped touchpoints.



Brand Studies



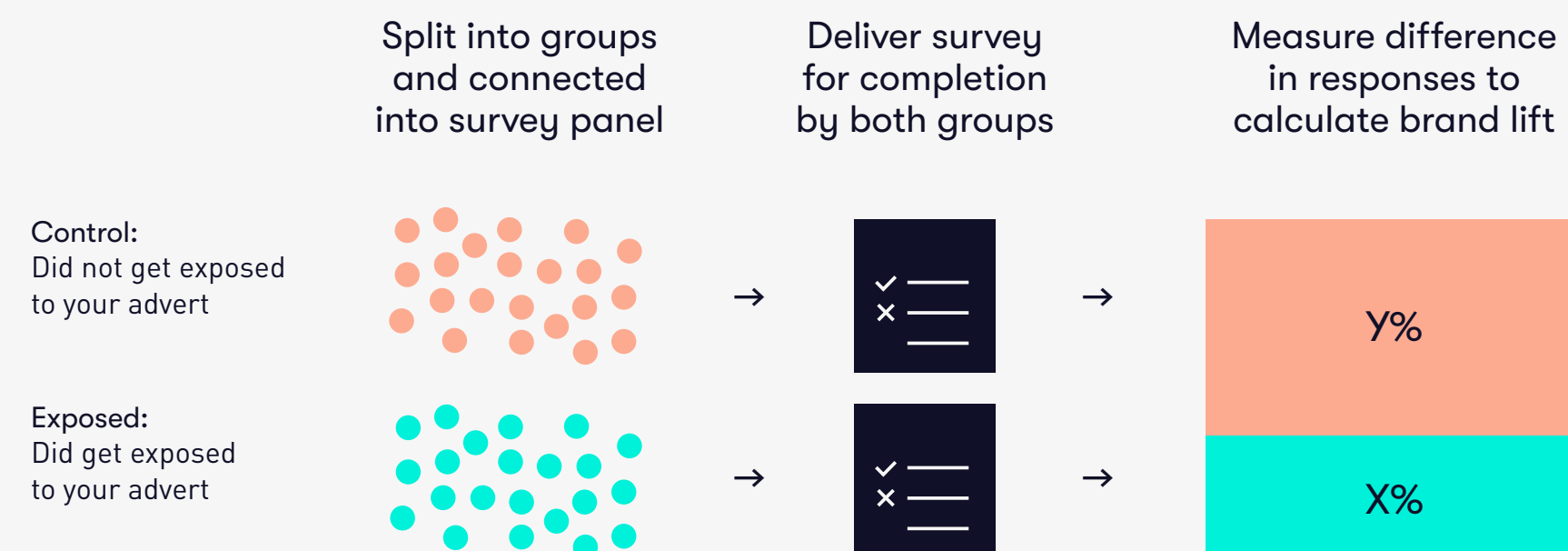
What are they?

Brand studies are a collection of tools used to measure brand metrics that cover awareness, familiarity, favourability, consideration and intent. They can also cover claimed behaviours and attitudes.

These metrics are most commonly measured via responses to surveys delivered across the life of a campaign, typically before and after a campaign ("pre and post").

Best practice surveys adopt a control and exposed research design to quantify the difference between those who did and didn't see a campaign (see more under 'Controlled Experiments'). Groups are also demographically matched to ensure the only difference is the exposure to advertising.

Figure 5.
Example format for a brand study survey



When should I use them?

Brand studies are unique for their flexibility. They can provide insight on everything from creative design through to specific advert positioning on a webpage. Brand studies are most effective when used longitudinally to provide quantitative evidence of the impact of longer-term brand activities.

“Brand studies are especially useful for adding the “why?” to the “what” of media measurement. Econometrics can identify the financial, ROI impact of advertising (what happened) but we don’t know why sales increased. Brand studies can add this in. For example, did sales increase because the advertising made people more favourable to the product? Or simply because more people were made aware of it?”

George Hopkinson, Senior Research and Project Manager, IAB UK

After establishing a baseline and testing in specific campaigns, brand studies should become part of the ongoing measurement strategy and contribute to a culture of continuous learning.

“A one-off brand study might provide insight on what drives brand equity but unless it is part of a continuous process it won’t be fed back into shaping the long term strategy”

Charlotte Diemer, Client Director, Kantar Millward Brown

How does this fit in with measuring digital and offline channels together?

Brand studies are flexible and can be run individually across different ad channels to create a comparable set of metrics that assess the effectiveness of digital and offline channels side by side. Cross-media surveys that aim to track multiple channels in one survey will also use external benchmarks to estimate which channels respondents were most likely exposed to. This helps to prevent double counting and misattribution.

What are the limitations?

- Sample sizes and bias – panel sizes inevitably compromise on scale when attempting to capture the ‘true’ audience response. When combined with the fragmentation of media behaviour across multiple devices, this can lead to unrepresentative results due to small sample sizes.
- Survey audience accuracy – even with a large sample size, it is often challenging to accurately identify and segment groups of people who have been exposed to different media channels (particularly in digital).
- Do not provide financial metrics for planning – brand studies provide a quantitative summary of a sample audience’s claimed attitude in the form of brand metrics. They do not measure direct consumer actions (e.g. sales) that can be easily included in financial plans.
- Limits to demographic matching – there is no guarantee that a control audience is identical to exposed so the change could be due to factors other than advertising.
- Unreliable respondent recall – respondent recall of where they saw (or heard) an advert can be unreliable, with over-claim to TV. To address this, some cross-media brand surveys providers use external benchmarks and other measurement tools (e.g. econometrics) to calibrate responses.

Brand Studies Case Study

Shark | NINJA

Source: Facebook Business, Nielsen

American vacuum manufacturer Shark wanted to understand how combining TV and social media could improve brand awareness. ①

To provide a comprehensive assessment, they chose to measure a range of supporting brand metrics such as ad recall and purchase intent. ②

Shark built a poll upfront to assess their audience’s likelihood to be exposed to its TV campaign. This provided a key input to the design of a robust, exposed / non exposed measurement framework. ③

Shark conducted a pre and post campaign brand lift survey. By comparing the exposed and non exposed groups they were able to isolate the incremental brand effect of advertising in each channel.

A post-campaign total audience rating estimate was also deployed to provide a sense check of the targeting efficiency of the campaign’s TV and social media investments. ④

Shark’s measurement approach identified that the largest incremental brand lift came when audiences were exposed to a combined TV and social media campaign.

This information allowed Shark to design a media strategy that most effectively combined the wide audience reach of TV with social’s targetability and cost efficiency. ⑤

① Defined Objectives



② Reflective KPIs



③ Prepared Data



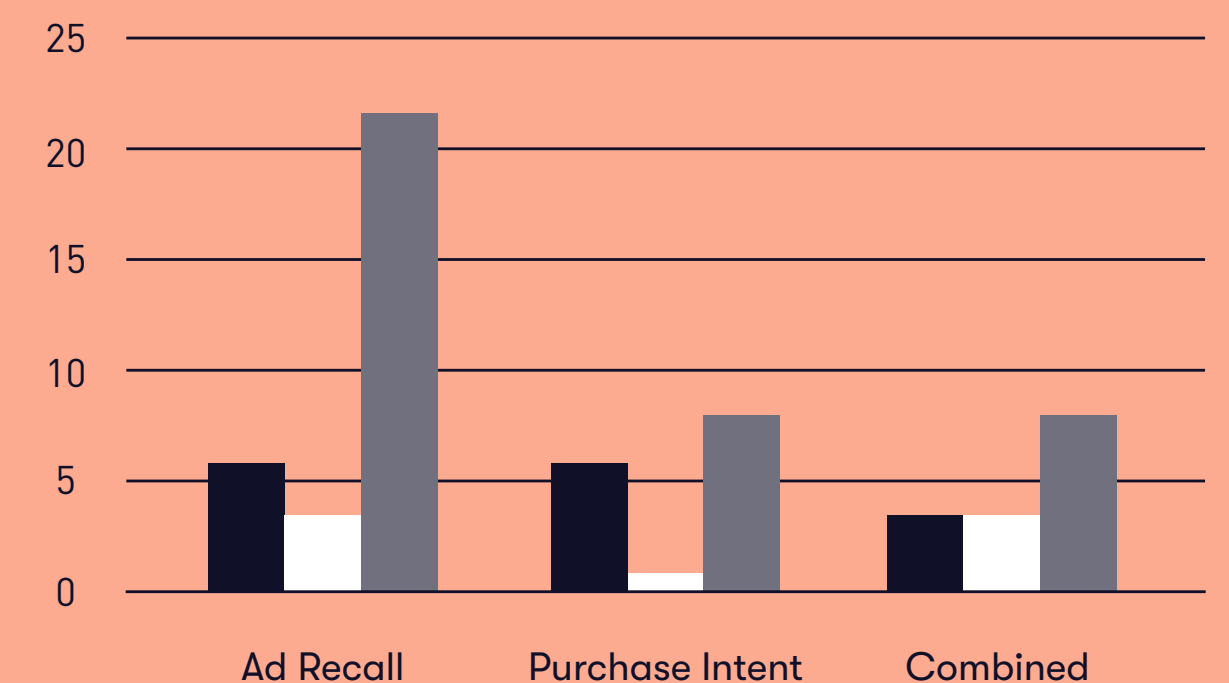
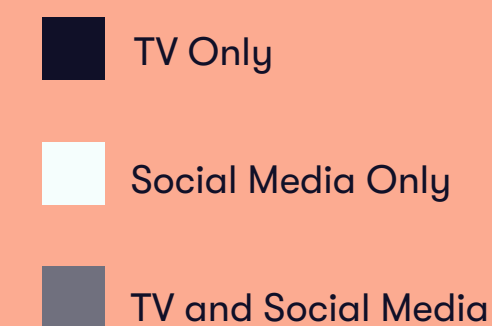
④ Integrated Tools



⑤ Test and Learn



Brand metrics % lift after ad exposure



What is it?

Econometrics are a set of statistical tools that aim to quantify the relationship between cause and effect in economic data. In marketing, this takes the form of Marketing Mix Modelling (MMM) which predicts how all advertising activity (e.g. TV, print, out of home, online video, social media, and search) translates into incremental sales. Models can also include the impact of factors outside the advertiser's control such as the weather.

Incremental sales are those directly attributable to marketing activity and enable marketers to identify and quantify the impact of their investments.

Under the hood, MMM uses the principle of linear regression to create a sales prediction equation (Figure 6) where the dependent variable is sales (left hand of the equals sign) and the independent variables are the marketing inputs (right hand of the equals sign).

When should I use it?

MMM is a well-established tool used by brands across all sectors to gain a top-down evaluation of how marketing and communications activities are impacting aggregate sales over a period of months to years.

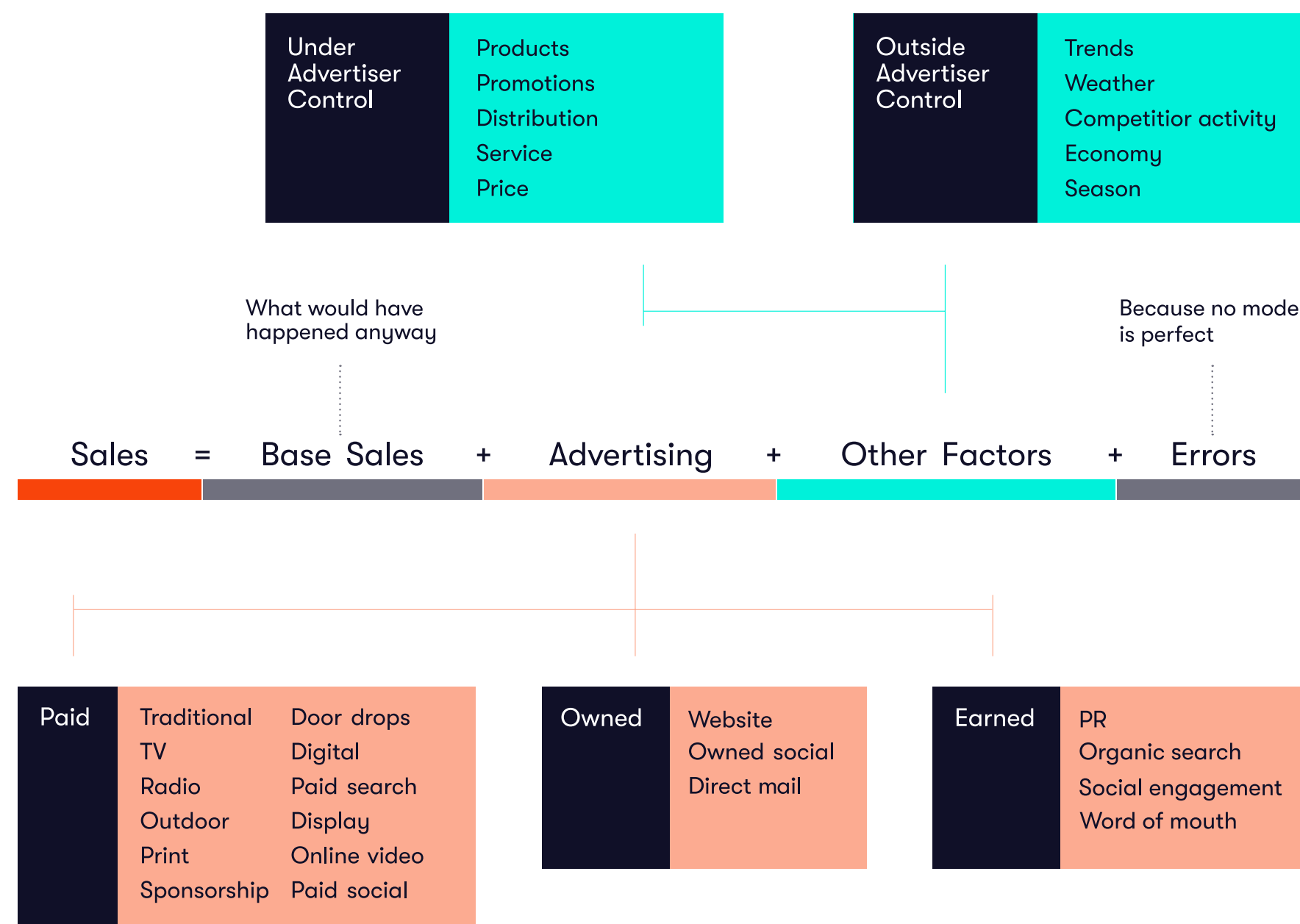
Traditionally MMM has been utilised to measure the impact of high-level channels (e.g. TV, out of home, radio) on predominantly offline sales. However, with the proliferation and growing prominence of digital channels the technique is increasingly being applied with greater granularity and precision cross-media.

Another common approach, is to use MMM in conjunction with attribution (see next section). MMM provides insight on which high-level channel is working best (digital video vs TV vs social media) and attribution modelling is then used to define shorter term, tactical marketing activities.

Lastly, econometrics isn't just for predicting sales impact, it can also be used on a wide range of B2C and B2B KPIs including awareness, consideration and brand equity measurements.

Econometrics / Marketing Mix Modelling

Figure 6. The sales prediction equation behind MMM





Econometrics Case Study

Source: Wall's, #IPA Social Works: 2016 IPA Effectiveness Awards

Wall's ice creams had lost market share being eaten on average only once per summer.

In 2014, launched cross-media campaign "Goodbye Serious" across out-of-home (OOH), social and TV to increase awareness of Wall's ice cream as an impulse purchase and drive sales frequency. ①

Wall's wanted to understand the impact each channel would have on incremental sales whilst controlling for the effects of good weather. ②

Econometrics provided the ideal tool to compliment the measurement of brand lift studies on awareness and appeal. ④

Econometrics identified that Wall's had sold an additional 2.8m ice creams over the summer period.

Social (Facebook and Twitter) generated almost half of these sales from a media spend of just 17%.

This provided quantitative, testable benchmarks to inform the planning of future campaigns. ⑤

In a later phase, Wall's designed a universal impressions metric to enable a more direct quantitative comparison of reach. ③

This provided both supporting, quantitative evidence for wider brand lift studies and a sense check for econometric modelling for incremental sales.

① Defined Objectives



② Reflective KPIs



③ Prepared Data



④ Integrated Tools



⑤ Test and Learn



What are the limitations?

- Requires long term, granular data that takes time to collect and analyse – MMMs run on weekly time series data that ideally covers a historic period of 2+ years. Added to this, robust forecast results can take time to emerge, limiting the ability to pick up short term markets signals.
- Measuring the contribution of digital – MMMs assume that each input variable is independent and so struggle to capture synergies (e.g. where a digital campaign amplifies a TV advert). Large investment in one major channel (e.g. TV) can drown out the contribution of others (e.g. digital).
- Collinearity – MMMs need variation across input variables in order to identify what impact each has. In practice, advertising spend typically varies together ("collinearity") with campaign activities turned "on" and "off" at the same time.
- Single KPI as an output – this means for every KPI that is measured a new model is required, adding cost and complexity when analysing multiple KPIs.

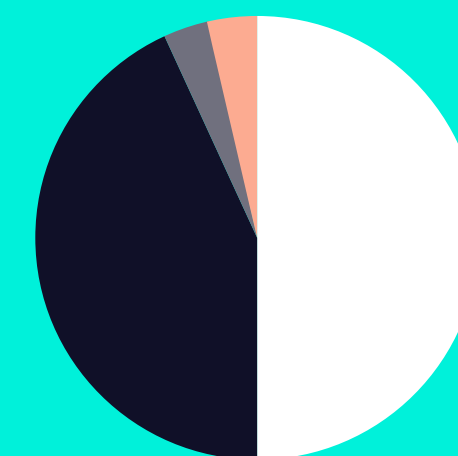
"MMM is great for understanding the bigger picture - like a plane flying across a city, it can see the shape of the river running through but is less helpful for giving directions to a restaurant."

Harry Davison, UK Client Marketing Science Manager, Facebook

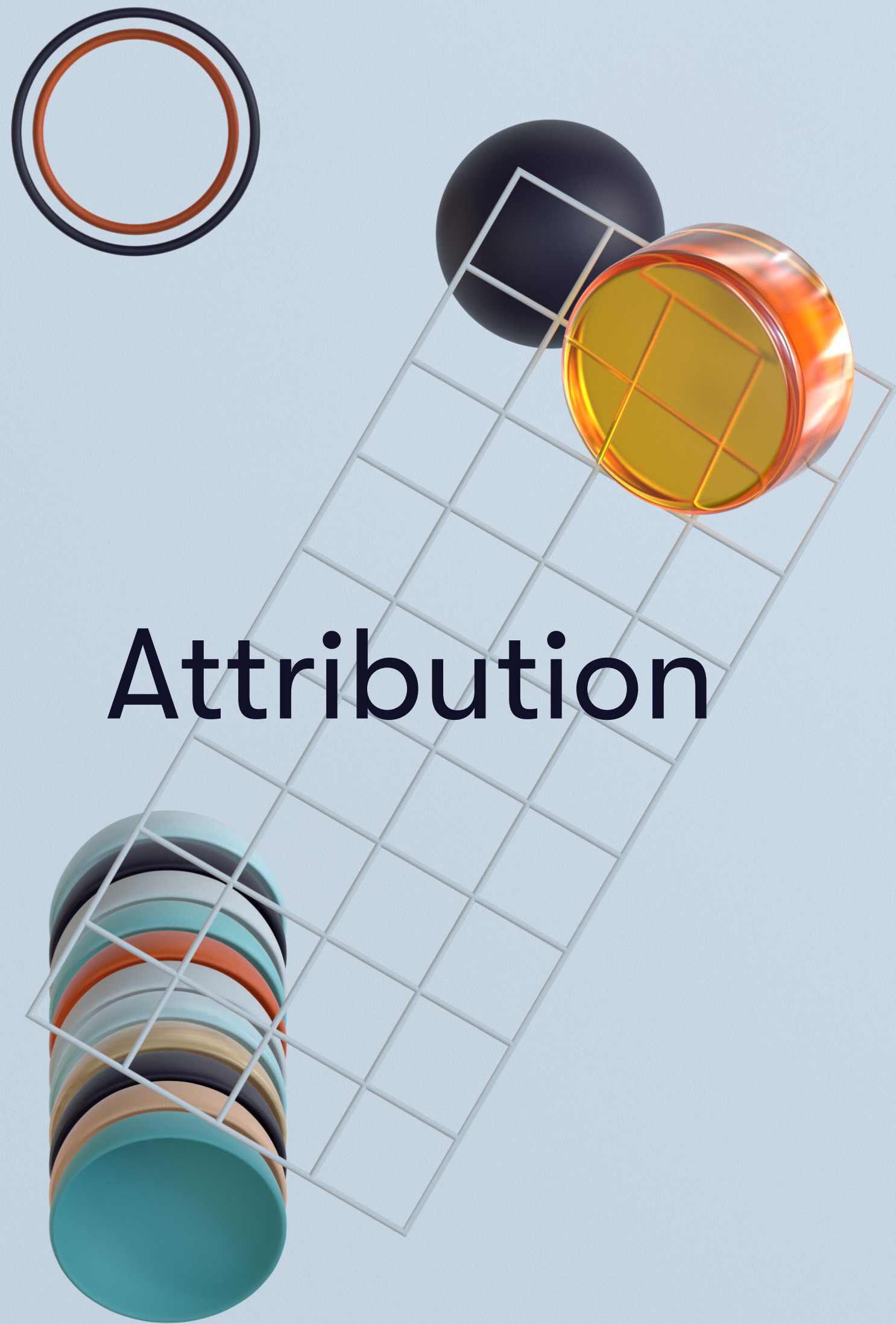
How does this fit in with measuring digital and offline channels together?

MMM can directly compare the impact of digital and offline channels provided sufficient historic cross channel sales data is available. MMM can provide further insight across digital and offline by adding granularity to the advertising inputs that are included across paid (e.g. TVRs, paid search), owned (e.g. website) and earned (e.g. social media engagement) sources.

Universal impressions comparison – volume and cost per impression



	Impressions	£ / Impressions
OOH Advert	455m - 460m	£0.003
Facebook	155m - 60m	£0.001
Twitter	25m - 30m	£0.0013
TV Only	5m - 10m	£0.0010



What is it?

Attribution modelling is a technique which evaluates how different touchpoints contribute to a sale or action by assigning credit based on their level of involvement.

Statistical models are built with individual user level data across channels to analyse the difference in media interactions between “converters” and “non-converters”. These channels can then be assigned contribution ratios in close to real-time which are used to inform allocation of spend.

Multiple techniques have been developed within attribution to try and handle the complexity of assigning credit across different customer journeys (Figure 7).

Figure 7. Range of Attribution Techniques

Single Touch Attribution

Heavily simplified user journey

First Touch
 · Assigns all value to the first channel
 · Strong bias to initial driver of action



Last Touch
 · Assigns all value to the last channel
 · Strong bias to final trigger to action



Last Ad Event
 · Assigns all value to last channel to show ad
 · Obscures channel vs creative impact



Multi Touch Attribution

More accurate model of user journey

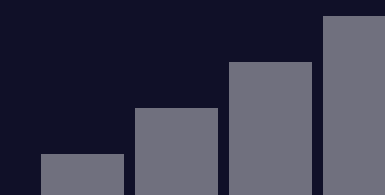
Custom / Full Path *
 Assigns a custom weight to every channel based on bespoke journey



Position Based *
 Assigns value based on purpose of activity e.g. U-shaped first touch and conversion touch



Time Decay
 · Credits channel closer to conversion action
 · Bias against early engagement channels



Linear
 · Assigns value equally
 · Arbitrary assignment obviating channel impact



* best practice

When should I use it?

Attribution is about conversions. Conversions can be defined and tracked across the customer journey by assigning KPIs to brand equity metrics through to sales.

Attribution modelling is widely used in digital marketing due to the volume, accessibility and granularity of data available. Some platforms offer their own attribution systems making individual channel assessment straight forward. So, for deep-dives on individual channel effectiveness, especially in fast evolving channels such as social media, attribution is a must-have tool.

However, the greater value of attribution is in helping to determine the relative contributions of different types of activity (particularly digital) and enabling rapid scheduling and creative alterations.

Where attribution thrives is in its ability to provide immediately actionable insights on short term campaigns with lower historic data requirements (days vs months to years in MMM). Attribution can also provide a tactical compliment to high-level aggregate forecasts provided by MMMs.

Choice of model (e.g. last touch to full path) primarily depends on the nature of the product sales cycle and what you are trying to understand. For example, last touch models can still be helpful

in identifying which touchpoints are most powerful for closing conversions whereas a position based model (e.g. U shaped) provides a more comprehensive view of end-to-end performance.

How does this fit in with measuring digital and offline channels together?

Attribution is frequently used for digital channels, where granular individual actions (e.g. clicks) can be tracked most easily. Attribution models that combine digital and offline channels exist but still face significant challenges in accurately tracking conversions across platforms. Moreover, there are additional challenges when the purchase occurs offline (in a store) and these should be addressed by using other tools in combination (e.g. MMM).

“Multi Touch Attribution does not provide a single ‘true’ attribution - there’s just too much invisible data. Instead, it offers granular, tactical insight that can be a helpful addition to a wider measurement project”

Andy Bellis, Director of Performance Analytics, Mindshare

What are the limitations?

- Risk of over-bias towards digital advertising – attribution provides the most insight on navigation, not causality. Relying too heavily on attribution models risks overstating the impact that both advertising and digital channels have on conversions.
- Building a single view of the customer – the quality of insight from attribution models is heavily influenced by the customer touchpoints tracked. Gaps can lead to incorrect weighting of channel contributions (e.g. if a customer searches and evaluates a product on Amazon’s mobile app but completes the purchase via the owner’s website on desktop).
- Access to data – the most commonly cited challenge with multi-touch attribution is the inability to tag campaigns across the major internet platforms. Marketers need to be realistic and not get lost trying to develop the perfect multi-channel picture.
- Short timeframe of insights – an over reliance on attribution can encourage an over investment on short term activation vs longer term brand building activities.

Attribution Case Study: Clothing Retailer



Source: Marketing Management Analytics (PPSOS)

A major clothing retailer with a long heritage of driving sales through a direct mail catalogue wanted to assess the potential sales contribution of increasing investment in its digital channels. ①

To understand the diversity of customer purchase journeys, over 500 microsegments were created based on a combination of first-party CRM and third-party audience data.

These broke down the customer audience by lifecycle and behaviour across digital search, digital display, mobile, catalogue and other direct mail. ③

Customer conversions were tracked as they migrated across channels after being targeted by different kinds of marketing. ②

Multi-touch attribution demonstrated that each channel benefitted from actions taken on other channels across the customer journey.

Only 65% of catalogue sales were driven solely by catalogue. The rest came from customers drawn to the catalogue via digital channels that when viewed alone had few direct conversions.

A test and learn setup verified these insights against specific thresholds, helping to develop an effective channel strategy. ④

The company found they had been over-investing in catalogue marketing and under estimating the role digital played in attracting existing customers. Channels were shown to be most effective in combination.

By implementing these insights into their media strategy, the company was able to drive 4.9% y-o-y sales growth the next year. ⑤

① Defined Objectives



② Reflective KPIs



③ Prepared Data



④ Integrated Tools



⑤ Test and Learn



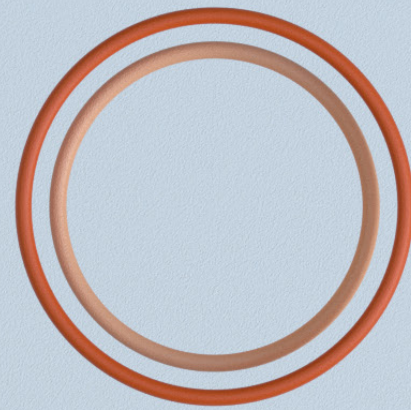
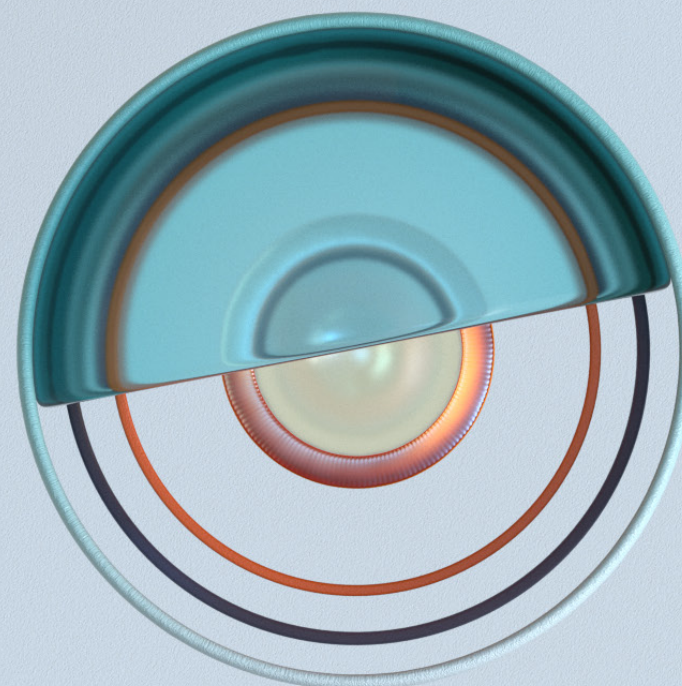


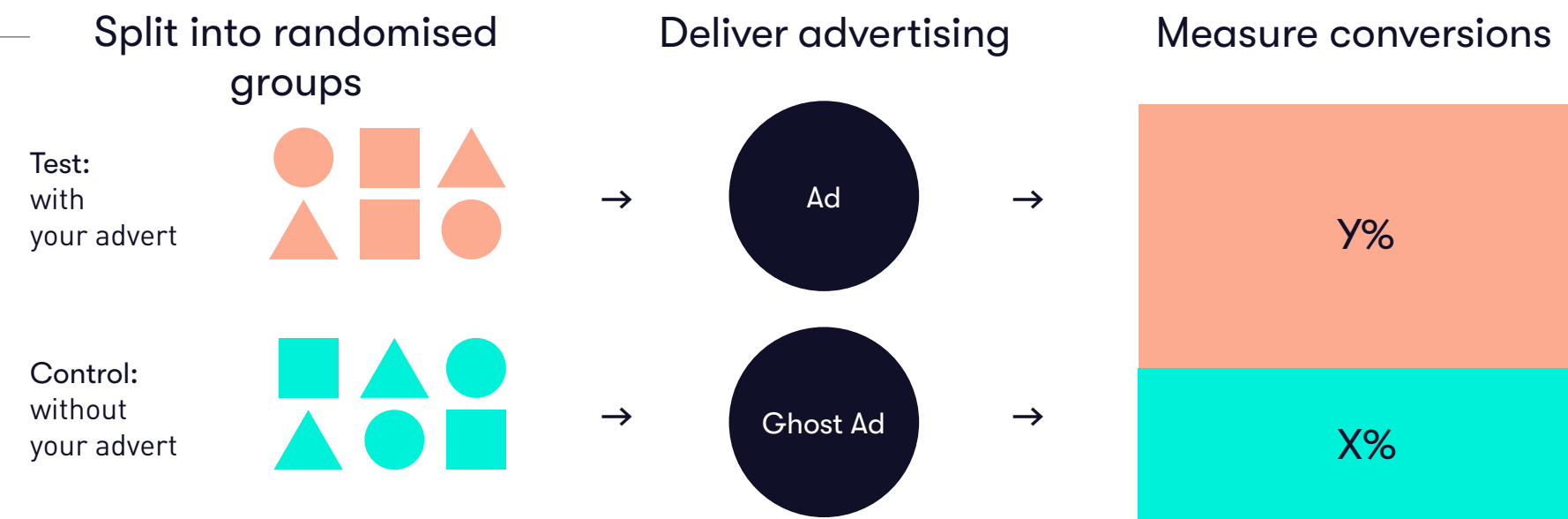
Figure 8. Example format for a controlled experiment

Controlled Experiments



What are they?

Controlled experiments randomly assign a group of people to a test or control group to observe and quantify the impact of a change in media over a defined period of time. The test group is exposed to a change in media (e.g. your new display advert) whilst the control group sees no change (ideally users are shown a 'ghost' ad which presents a relevant competitive baseline ad). Experiments require a clear, testable hypothesis (e.g. paid social media will cause a 1% lift in search referrals.)



Conversion results are then compared and quantified. This approach is fundamental for accurately measuring incrementality – conversions due to your advertising activity that would not otherwise have happened.

$$\frac{(\text{Test Media Conversion Rate} - \text{Control Media Conversion Rate})}{\text{Control Media Conversion Rate}} = \text{Incremental Lift}$$

Controlled experiments can be utilised within other methodologies (e.g. attribution) and are sometimes incorrectly referred to interchangeably with AB tests and 'test-and-learn'. AB tests compare two groups without randomising the allocation of treatment and control. 'Test-and-learn' is a reference to a general approach of doing something, measuring the results and then trying again.

Controlled experiments are distinctive in the random assignment of control and test groups which 'design out' other factors and isolate the impact of specific media.

When should I use them?

Controlled experiments represent the most effective way to validate existing marketing activities and fill gaps in knowledge, particularly across high volume digital channels. Experiments can be designed for any campaign with a hypothesis around a target KPI where a control and a test group can be practically exposed to different media. Applying experiments should be approached as an ongoing process that can be continuously improved upon and extended across measurement activities, rather than as a one-off tool.

Controlled experiments work best in stress testing key touchpoints and channels. For example, econometrics activity might have identified that paid social media advertising is triggering higher organic search resulting in increased sales. But before management will sign off on further spend, they want more robust evidence of the uplift across social to search. Controlled experiments offer the perfect opportunity to adopt best practice scientific methods to add confidence and precision to marketing investment decisions.

Controlled Experiments Case Study

Source: Think with Google

EE were aware that their typical customer's purchase journey was complex, with many in-store sales preceded by extensive online research.

They wanted a data-backed explanation of the relationship between online media and offline sales to test whether increased digital media spend generated an incremental sales lift. ①

To quantify their ROI, they needed to measure variance of offline sales income across areas targeted with different levels of digital ad spend. ②

EE gathered historical offline sales data for the whole UK. By assessing sales distribution and fluctuation over time they were able to divide the nation into 24 regions: 12 as tests, 12 as controls.

Test regions were matched to control regions with similar characteristics - ie. Edinburgh and Belfast - to ensure comparability. ③

Geo-testing enabled EE to upweight search spend in the 12 test regions and compare the incremental sales lift against the comparable control group. ④

As a result EE were able to show the finance department a £2.32 ROI for every £1 spent on search advertising, providing a key benchmark for future marketing investment. ⑤

① Defined Objectives



② Reflective KPIs



③ Prepared Data



④ Integrated Tools



⑤ Test and Learn



What are the limitations?

- Clear testable hypotheses required – if hypotheses are too generalised (e.g. do generic search ads drive overall sales) that could lead to a poor allocation of marketing spend. A better framed hypothesis would seek to test the differing conversion impact of one tailored search ad (“Fluffy pink socks”) vs a generic search term (“Socks”) on driving sales to your website.
- Sample size and scalability – to be statistically significant, controlled experiment groups need sufficient volume. This becomes increasingly challenging the more channels and media options are tested (e.g. adequately sized test and control groups for every combination of media and channel).
- Limited cross channel applications – controlled experiments combining online and offline channels remain challenging to conduct efficiently. Geo-testing (mapping online ad spend to offline sales activity across test and control regions) offers one route, though scaling this to multiple media channels (e.g. TV, digital) quickly becomes impractical when attempting to assign and maintain a control and test group.

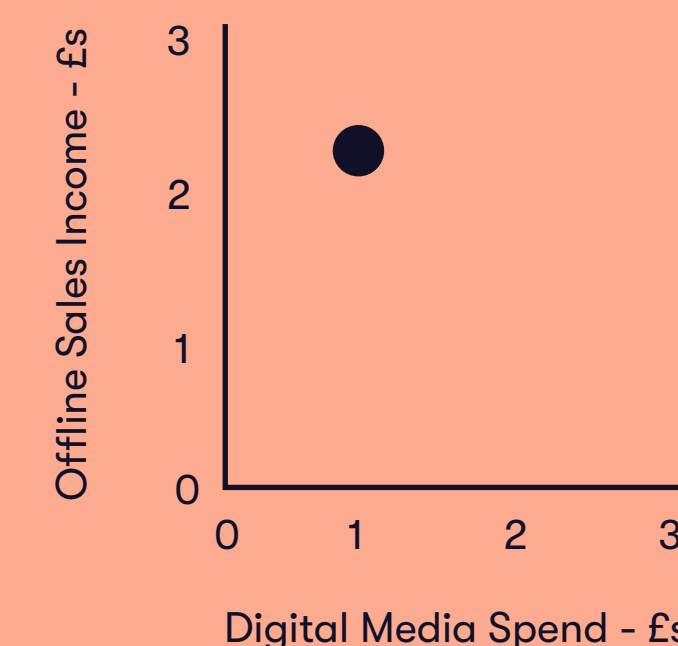
“Randomised, controlled experiments are the gold standard that the industry should aim for. They should be used to answer a small number of key questions, and to calibrate other models like attribution and econometrics”

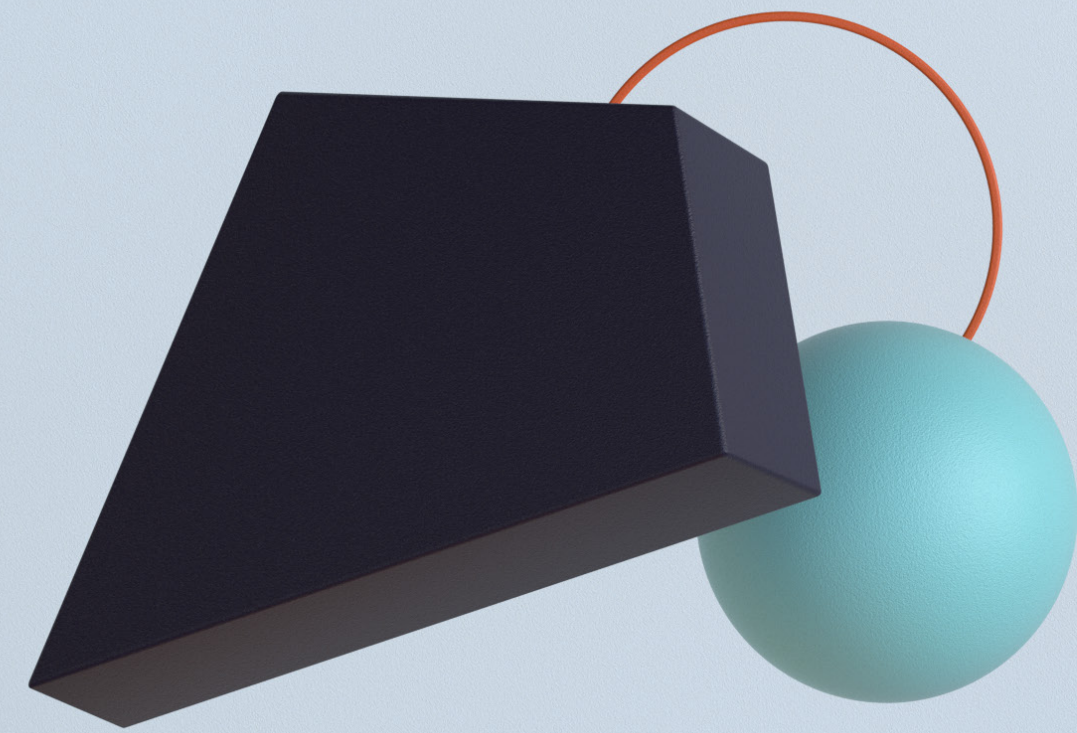
Matthew Taylor, Econometrics Program Lead, Google

How does this fit in with measuring digital and offline channels together?

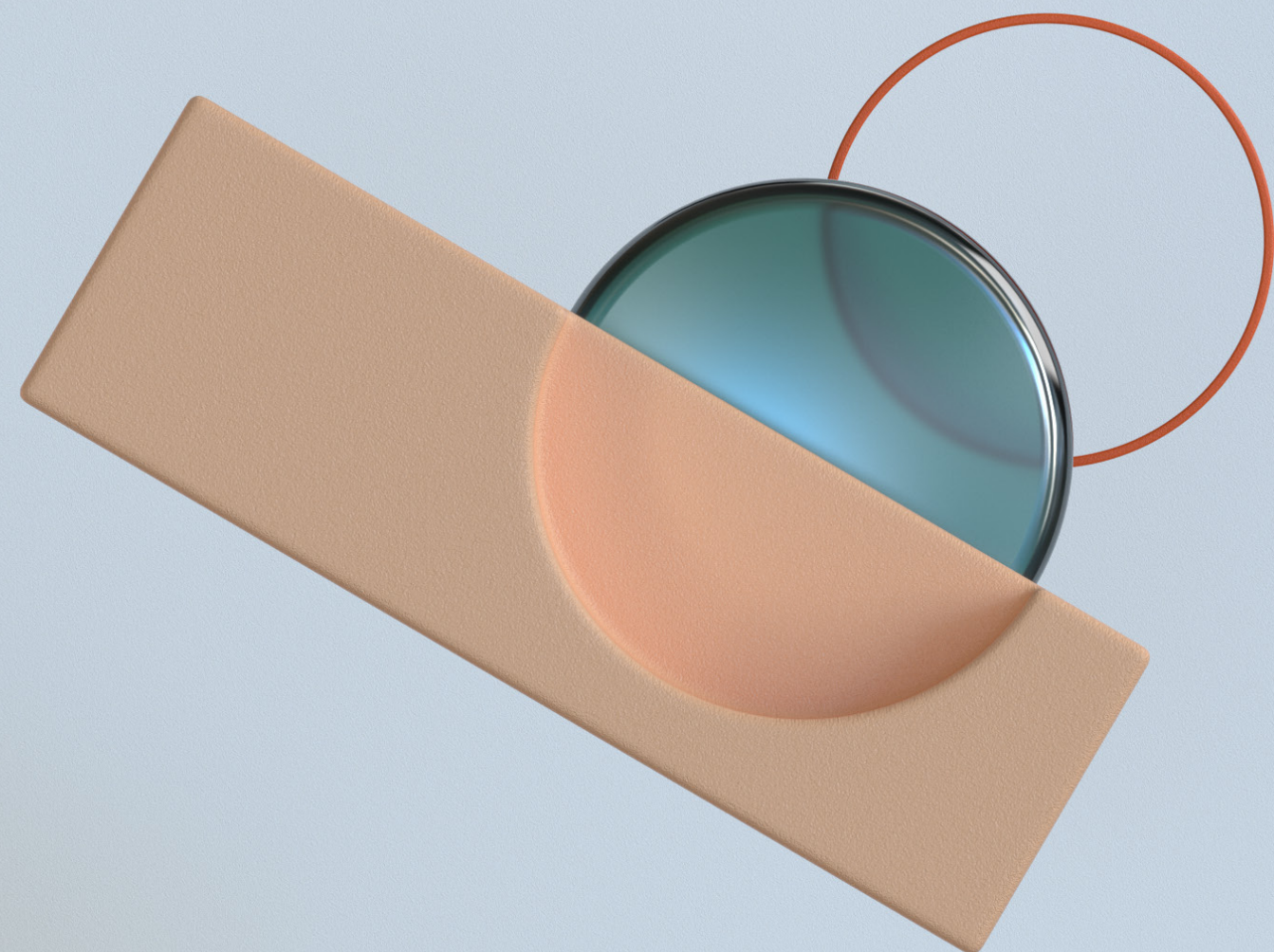
Controlled experiments are flexible and can be deployed across digital and offline channels. They can be particularly helpful in testing the interplay between digital and offline. For example, geo-testing in a controlled experiment design can be used to test the impact of online spend on high-street sales. However, it is important to recognise that ensuring a robust and sufficiently large control and test group across multiple channels can quickly become very resource intensive.

Offline sales per £ of digital media advertising spend





Emerging Trends



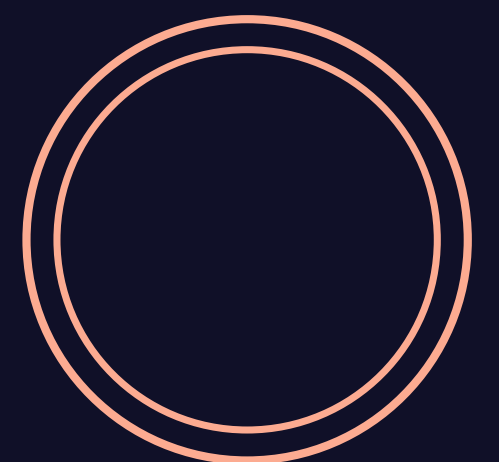
Lastly, it is important to recognise two major trends that are impacting the shape and application of measurement and effectiveness tools – machine learning and data privacy.

Machine learning algorithms ingest large disaggregated data sets and identify patterns. For example, you could feed in a dataset for a known KPI (e.g. conversion uplifts from campaign types) and train an algorithm to predict how the KPI would perform based purely on its input features.

This is a fast-moving space with live applications across all the methodologies discussed in this toolkit. However, the same measurement principles apply, particularly around understanding the scope and quality of your data. Without large, high quality datasets across your key KPIs and channels, machine learning is a redundant tool.

In contrast to utilising increasingly large datasets, is the rising awareness and regulation of consumer digital privacy.

The full implications of GDPR remain to be seen but future measurement frameworks will have to respect and navigate the resulting constraints on the granularity and coverage of consumer data across channels.



Recommendations and Takeaways

Cross-media measurement is not easy. Increasing channel complexity, competing and missing data and rapidly evolving tools can make measurement and effectiveness feel like an insurmountable task.

But that is far from the truth. Whilst there's no magic formula, this toolkit aims to provide both practical tools and an understanding of how to improve cross-media measurement efforts from today.

Below is a pull-out summary of the four tools covered that recaps the key components of each (see Figure 9).

Figure 9. Summary of key measurement tools

Create a Measurement Strategy

This section provides three key templates to help set your measurement strategy on your next campaign. They can be adapted to specific business requirements. Work through each of these, together with the checklist on page 20.

- Step 1. Set the right foundations
- Step 2. Organise your data
- Step 3. Develop a unified framework

Summary of Key Measurement Tools

	Brand Studies	Econometrics / MMM	Attribution	Controlled Experiments
Overview	<ul style="list-style-type: none"> Measures how marketing activities and channels impact consumer attitudes and brand perceptions. 	<ul style="list-style-type: none"> Estimates the effect of marketing mix on incremental sales. 	<ul style="list-style-type: none"> Assigns credit to touchpoints across channels based on their contribution to an action. 	<ul style="list-style-type: none"> Quantifies impact of change of media between randomly assigned test and control groups.
Context for Use	<ul style="list-style-type: none"> Flexible survey format for diverse assessment of brand building activities. Providing a "pulse-check" on short-term campaign activity. 	<ul style="list-style-type: none"> Long term evaluation of historic aggregate data (usually weekly) to assess past influences and predict future sales. Optimising high-level channel mix. 	<ul style="list-style-type: none"> Measuring granular user level (particularly digital) tactical actions. Enables rapid scheduling and creative alterations. 	<ul style="list-style-type: none"> Stress testing key customer touchpoints that have sufficient volume. "Gold standard" approach to target across all measurement activity.
Methodology Considerations	<ul style="list-style-type: none"> Survey selection bias and sample sizes. Challenge of accurately segmenting audiences by media channel. Limited power as a direct input to financial planning. 	<ul style="list-style-type: none"> Requires 2yrs+ granular data (e.g. weekly sales). Struggles to capture amplifier effect of digital. Media spend timing has to vary (avoid collinearity). More KPIs = more models. 	<ul style="list-style-type: none"> Risk of over-bias towards digital advertising. Challenge of building single customer view (e.g. lack of universal IDs across major internet platforms). 	<ul style="list-style-type: none"> Requires clear testable hypotheses. Requires large sample sizes or significance. Challenge of achieving scale and accurate group assignment across-media.
Sector Considerations	<ul style="list-style-type: none"> To what extent are customers exposed to the brand e.g. consumer retail (high) vs manufacturing (low)? 	<ul style="list-style-type: none"> To what extent are non-media tools (discounting) relied upon for sales e.g. FMCG (high) vs healthcare (low)? 	<ul style="list-style-type: none"> What is the length and complexity of customer journey e.g. auto (high) vs transactional entertainment (low)? 	<ul style="list-style-type: none"> What are the volume of interactions (particularly sales) by channel e.g. FMCG (high) vs luxury goods (low)?
Expected Outputs	<ul style="list-style-type: none"> Qualitative analysis explaining drivers of brand attitudes and perceptions. Quantification of change ("lift") in brand metrics by channel. 	<ul style="list-style-type: none"> Single KPI prediction – e.g. average effect on sales. Quantitative explanation of supporting influences. 	<ul style="list-style-type: none"> Robust quantitative models of channel conversion rates. Quantitative explanation of best performing customer journeys. 	<ul style="list-style-type: none"> Most robust quantification of incrementality from marketing activity.

Key Principles for Measurement Success Checklist

Define Campaign Objectives

1

- What is my primary objective?
- How will my objective feed into my long and short term goals?
- What do I need to measure across channels to address the objective?

Set KPIs to Reflect Objectives

2

- Do my KPIs relate directly to my objective?
- How is the KPI calculated from the method I have chosen (e.g.ROI)?
- How will I calibrate KPIs from different timeframes, channels and tools?

Organise Data Requirements

3

- What are the key categories of my marketing spend (particularly within digital)?
- Where do I have gaps in my marketing channel data coverage?
- Where can I improve the granularity and coverage of my data?

Integrate Multiple Tools

4

- What are the limitations of my chosen tool and methodology?
- What other tools could provide further insight?
- Who else in my organisation could be working on a similar type of problem?

Test and Learn

5

- Have I set expectations that measurement is a continuous process?
- What is the action(s) or decision I will take based on the result?
- What is the plan to report results and how will that feed into the next marketing activity?

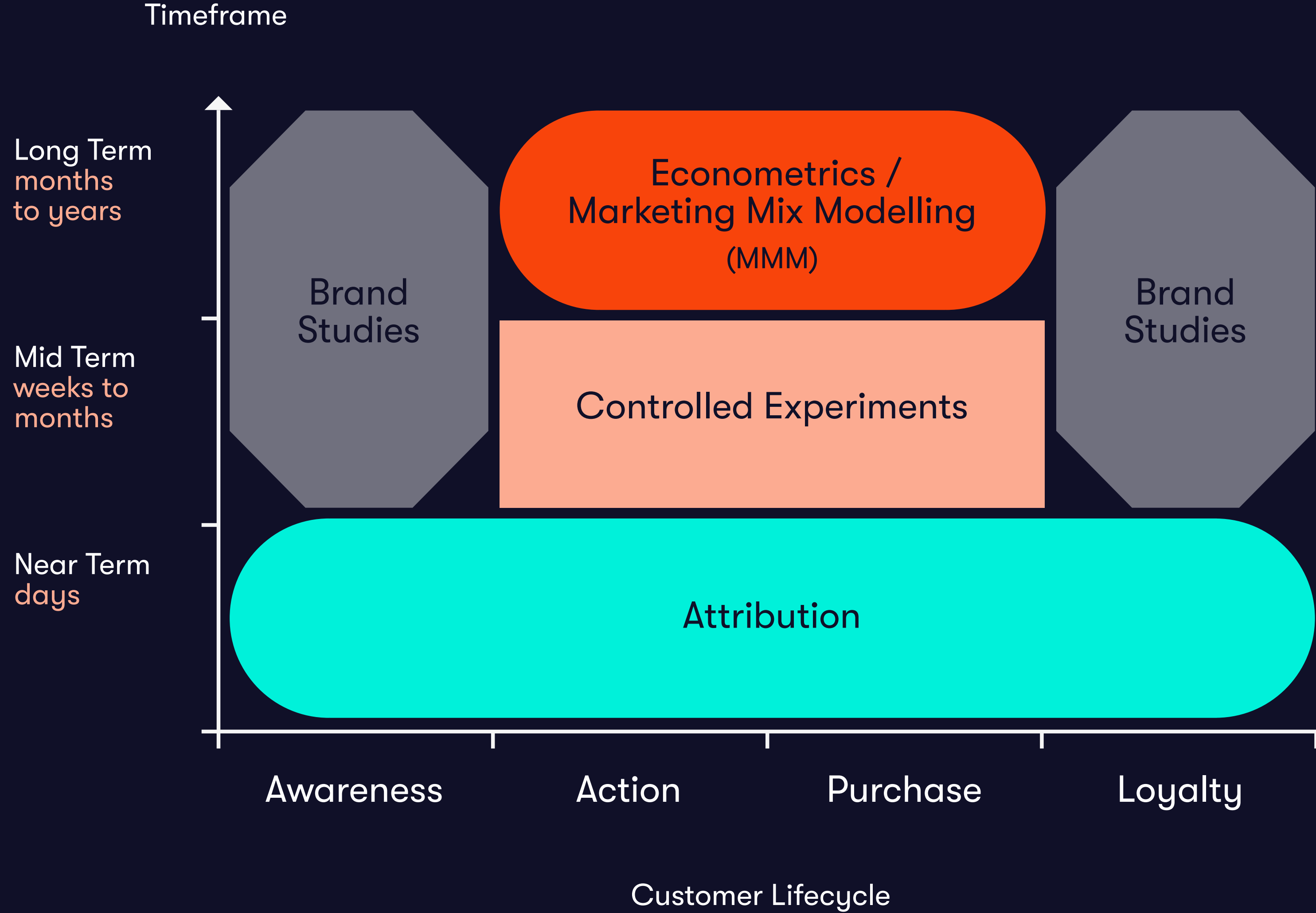
Organise your Data

list of channels is non-exhaustive

		Channel in use?	Estimated Spend	Source of data	Trackable ID out of channel	Awareness (e.g. impressions)	Action (e.g. Clicks)	Purchase (e.g. target sales destination)
Digital	Search							
	Display							
	Social Media							
	Online Video							
	Owned Properties							
	Email							
Traditional	TV							
	Radio							
	Outdoor							
	Print							
	Other							
Device Specific Activity	Mobile (e.g. in-app)							
	Tablet							
	Other (e.g. smart speakers)							

Develop a Unified Framework

Tools can be deployed across the customer lifecycle and for varied timeframes but offer the most actionable insights at mapped touchpoints.



Top Tips Checklist

- Don't operate in silos - understand the measurement activities already happening in your organisation (as well as external companies)
- Plan measurement early - set clear objectives and KPIs upfront and avoid retrofitting (use 'set the right foundations' on page 5 to help with this)
- Think carefully about choosing metrics - don't just rely on what is most accessible (e.g. click through rates) and include long term as well as short term metrics (use 'organise your data' on page 18 to help with this)
- Take a holistic approach - don't look at one channel in isolation and integrate multiple tools. Assess the campaign as a whole and review the role of each channel (e.g. strengths and weaknesses) within this framework (use 'develop a unified framework' on page 19 to help with this)
- Create a measurement strategy – create a clear, consistent plan for which tools you are selecting and why (use 'develop a unified framework' on page 19 to help with this)
- Build benchmarks of key metrics internally – set targets that reflect the context of other measurement activities in your organisation
- Review your measurement activity periodically – What were the gaps and limitations? Use results as continuous feedback to inform future marketing activity.

Visit www.iabuk.com/measurement for more information on the IAB's latest work.