How to apply

Business Intelligence to Marketing Procurement

decideware

# Contents

Introduction

Decideware Business Intelligence

"In God we trust; all others must bring data."

Edward Deming

Welcome! If you are an executive who works at a large advertiser, who has responsibility for managing relationships with marketing & communication agencies, and are looking for new ways to optimize those relationships, then this e-Book is for you.

In this e-Book we look at the red-hot area of **Business Intelligence / Data Analytics**, and specifically how it can be applied to marketing procurement decisions. We look at the importance of collecting marketing procurement data efficiently, using visualization in data mining (to help us look for patterns), the need to understand the statistical foundations used to make better decisions, and pragmatic case studies of how this theory is being applied in the agency management domain.

In these case studies we examine two critical areas where these techniques can be applied; managing our Scope of Work program and monitoring the Performance Evaluation of our advertising & other communications agencies.

Business Intelligence

Data Analytics
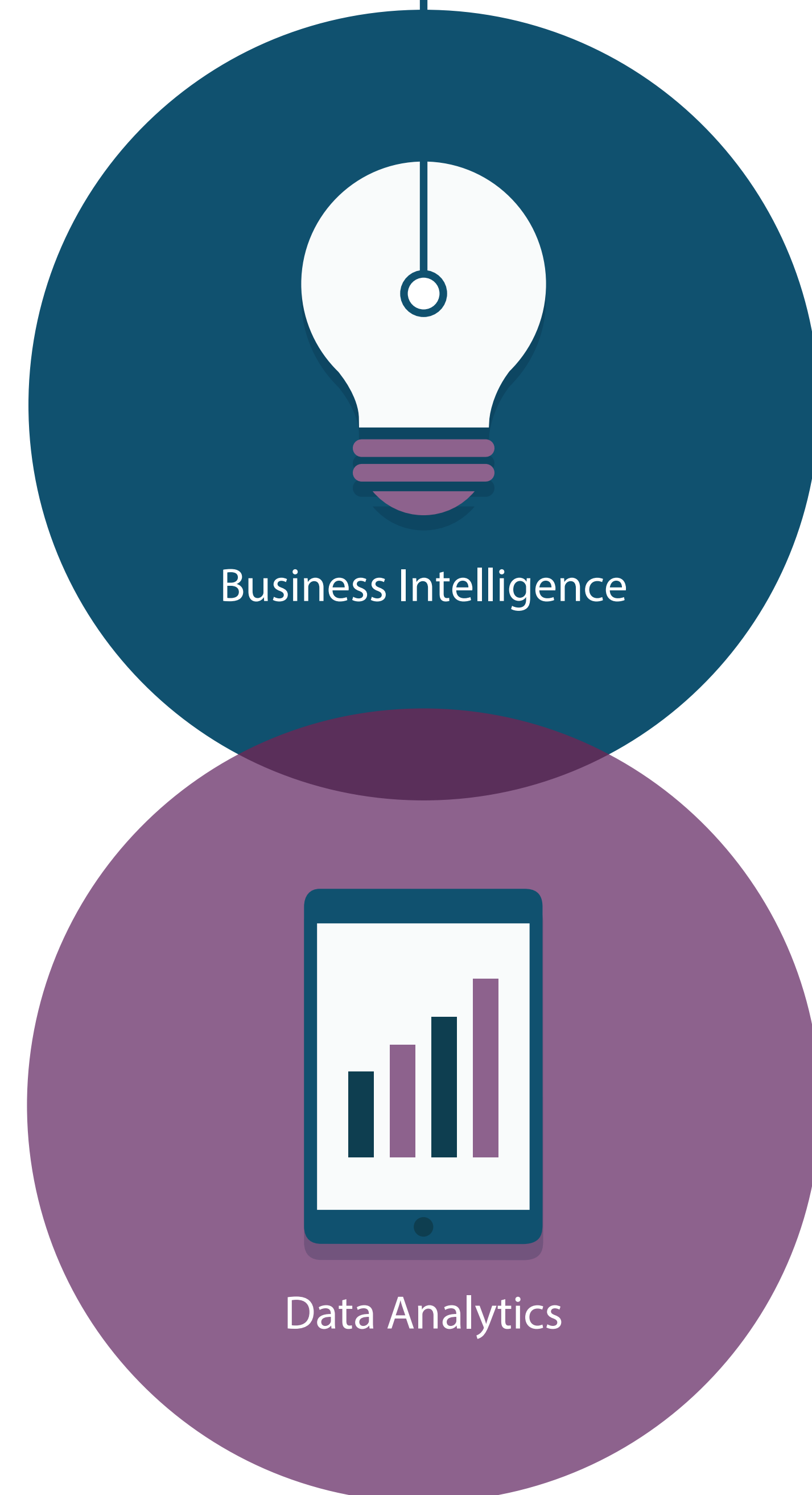
Marketing investment management

www.decideware.com

"Price is what you pay. Value is what you get."

Warren Buffett

As a discipline, marketing procurement is tasked with helping deliver optimal value from the advertising and communications budget. In many ways marketing procurement executives should be viewed as "investment managers", helping our stakeholders decide where spend with our agencies will return the best outcomes. Wise choices can significantly affect both the top and bottom line, but correspondingly, poor ones can have a negative impact on brand awareness, growth and profit.

In making these complex investment decisions we need to take into account many variables from a wide variety of sources, as examples; fees, rates, agency performance, out-of-pocket costs, capabilities, agency types, media channels, business units, brands, geography, deliverables, complexity of work, agency talent, seniority & experience, etc.

It certainly sounds like a daunting challenge; critical decisions, limited time-frames in which to make them, large amounts of information needed to make them wisely, and costly consequences if they are not made correctly!

Sitting on a gold mine

Decideware Business Intelligence

"**An investment in knowledge pays the best interest.**"

Benjamin Franklin

The good news is that as marketing procurement professionals, we are sitting on a gold mine that we might be unaware of, or certainly underutilizing.

Across all areas of marketing, decisions are increasingly being underpinned with a solid foundation of data. In the area of agency management we can access a rich set of information that can help optimize strategic decisions, like engaging agencies on new business, allocation of work, agency fee negotiations, optimizing production budgets, and measuring agency performance.

Type	Example
Measurement	How much of the budget will we spend on this work?
Counts	How many agency resources are working on my business?
Sequence	What is the rank of this agency using our evaluation rating scale?
Category	What is the split of channels this agency is working on?
Ratio	What percentage of our budget is being allocated to digital?
Rate	What is the blended hourly fee for this agency?

Different types of data we need to collect to assist with decision making.

Multiple Geographies

Business Units

Agencies
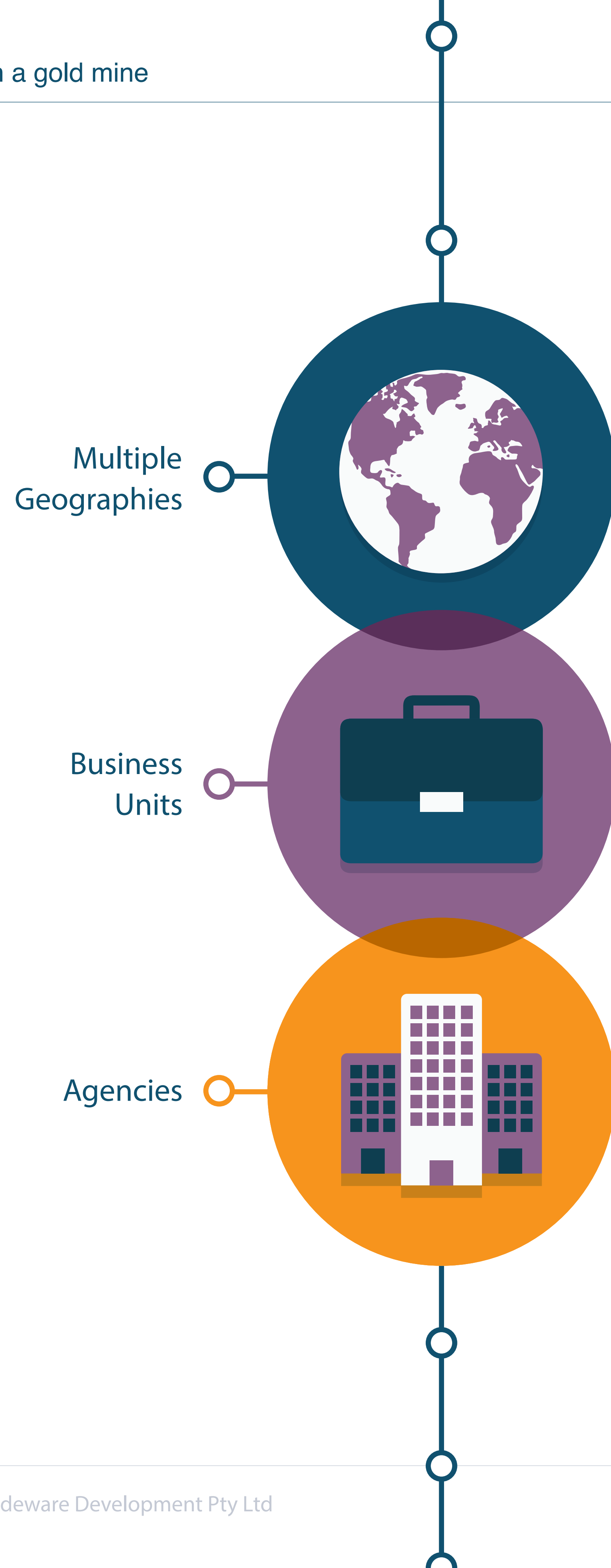
It is vital that the data needed to make these decisions arrives at the right time, to the right person and is of the highest quality possible. This places an emphasis on having processes and systems that allow this information to be collected efficiently, often across multiple geographies, business units and with different types of agencies.

Most decisions made in the agency management arena are time-critical, and must be accurate. Unfortunately the technology most often used to collect and aggregate this data, spreadsheets, suffers from a significant overhead; it is slow to collect, labor-intensive to centralize, and often suffers from poor data quality and transposition errors. Indeed having appropriate technology in place that can automate the collection of data, storing it in a central structured repository, provides a clear competitive advantage, allowing us to make faster, more robust decisions.

Once we have this data available, the next step is how to make best use of it, and in the next section we turn our attention to this vital piece of the puzzle.

Using our eyes

Decideware Business Intelligence

"One picture is worth ten thousand words."

Chinese proverb

Over millions of years the human visual system has developed to become our dominant mode of understanding the world. It is estimated that around 50% of our cognitive ability is focused through our eyes.

Our ability to survive was predicated on us being able to distinguish visual elements such as position, size, angles, and color, in order to look for patterns in our environment. Having the ability to distinguish between a large lion, and a small cat was literally a case of life-and-death. As was the ability to determine the color of the berry that was about to be eaten, or the shape of the rock you were about to stand on in order to cross the river.

50%
of our cognitive ability is focused through our eyes
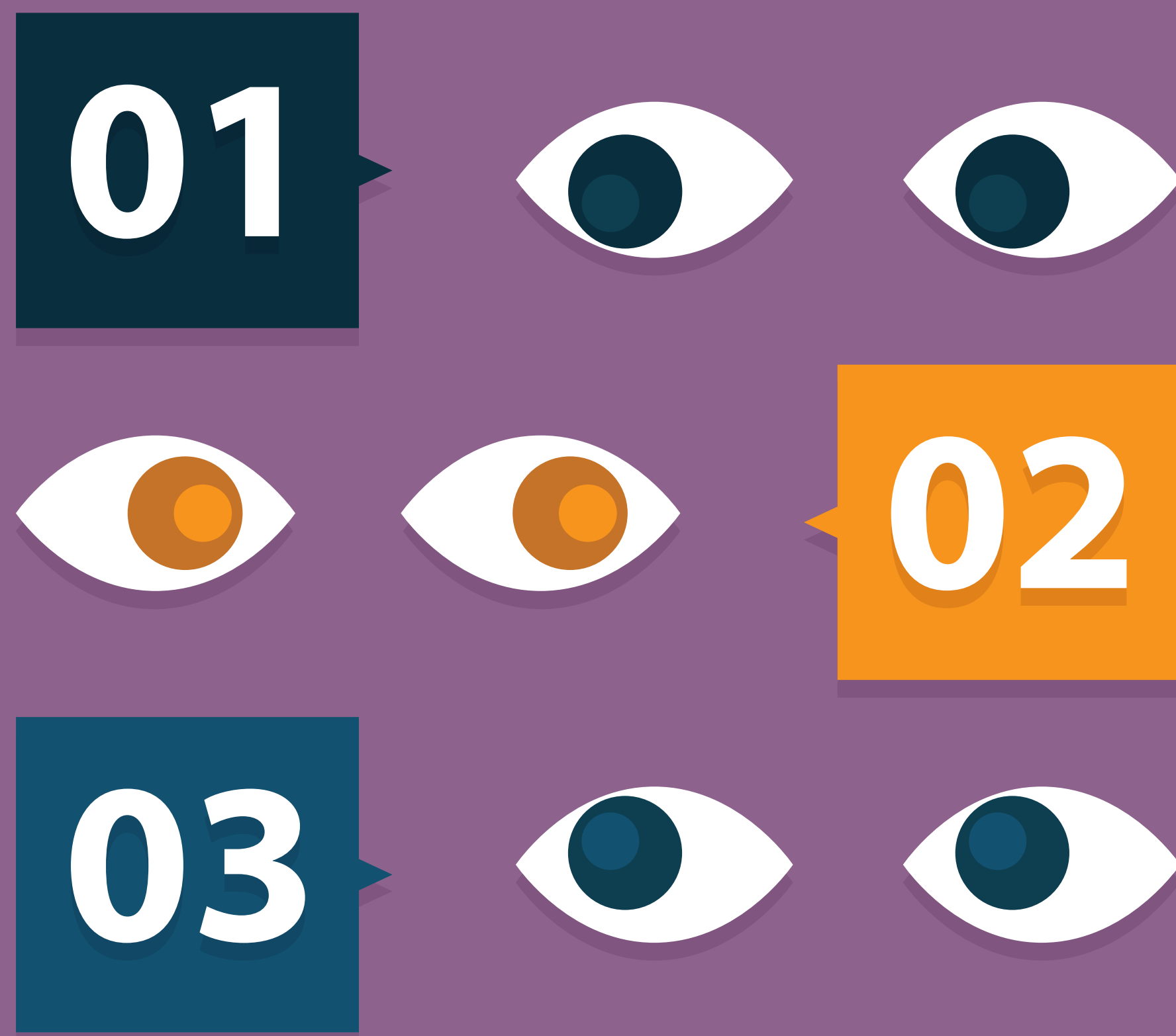
Visual test

To help you understand how powerful our visual cognitive system is, here is a simple test spread over the next few pages. Take 15 seconds on each part of the quiz – at the end of part 3 you will have a good idea why visual analytics are so important!

Part 1:

Count the number of 3's below?

2	1	2	3	8	4	2	8	0	7	5	1	2	4	8	9	8	1	2
1	4	3	1	2	7	9	4	5	3	1	2	1	2	5	7	1	3	1
9	7	5	2	4	1	6	5	8	1	4	7	3	1	2	1	8	6	5
4	2	4	6	7	2	6	1	0	3	5	7	0	8	1	2	4	5	6

Part 2:

Now that's better! Spot anything else?

2	1	2	**3**	8	4	2	8	0	7	5	1	2	4	8	9	8	1	2
1	4	**3**	1	2	7	9	4	5	**3**	1	2	1	2	5	7	1	**3**	1
9	7	5	2	4	1	6	5	8	1	4	7	**3**	1	2	1	8	6	5
4	2	4	6	7	2	6	1	0	**3**	5	7	0	8	1	2	4	5	6

Part 3:

Aha! I can see the pattern and what's likely to happen next.

2	**1**	2	3	8	4	2	8	0	7	5	**1**	2	4	8	9	8	**1**	2	**?**
1	4	3	**1**	2	7	9	4	5	3	**1**	2	**1**	2	5	7	**1**	3	**1**	**?**
9	7	5	2	4	**1**	6	5	8	**1**	4	7	3	**1**	2	**1**	8	6	5	**?**
4	2	4	6	7	2	6	**1**	0	3	5	7	0	8	**1**	2	4	5	6	**?**

"Preattentive processing refers to an initial organization of the visual field based on cognitive operations believed to be rapid, automatic, and spatially parallel."

Christopher G. Healey, Kellogg G. Booth, and James T. Enns: The University of British Columbia
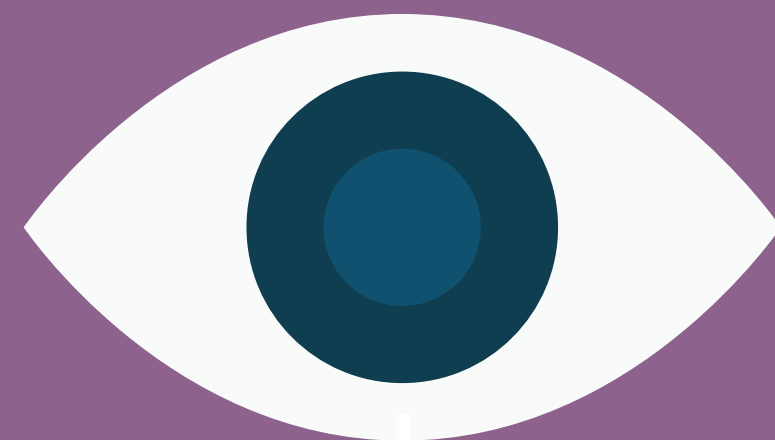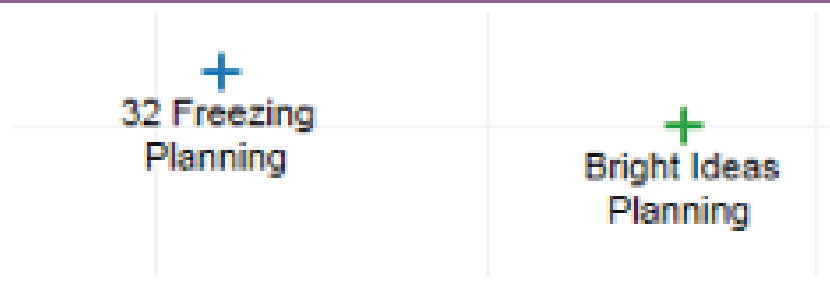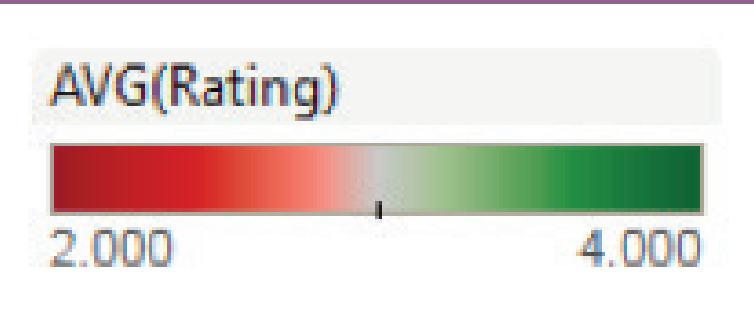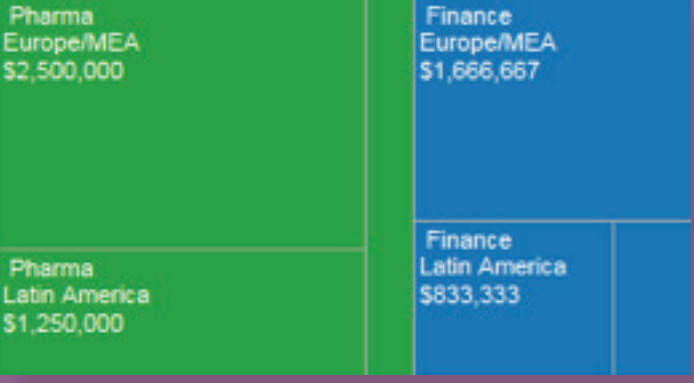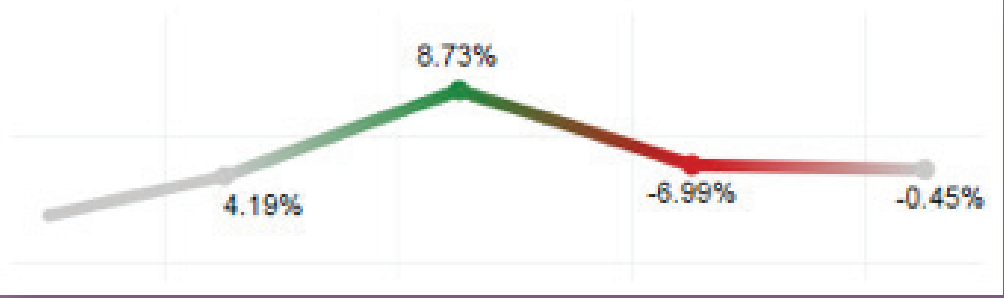
This ability to utilize our visual system to rapidly estimate size, identify color differences and detect patterns is known as **preattentive processing**.

Unfortunately we are not provided the same natural ability to process numbers. We need to learn techniques to understand and manipulate them. As a result it is generally far more difficult for us to find patterns, and to extrapolate from them as to what might happen in the future.

To address this, and take advantage of the "neural super-highway" that we are provided through preattentive processing, a new breed of data visualization software has emerged. It allows us to take large numeric data sets, apply statistical analysis, and use appropriate visuals to represent those in a way we can easily understand. From the insights these provide us, we can make decisions and ultimately take action.

Different types of visual "clues" that help us interpret data.

Visualization	Example of use	What it looks like
Length & Width	Bar charts showing comparison between elements	
Position	X / Y Graphs showing correlation between elements	
Color & Shade	Heat maps highlighting the range of numbers	
Shape	Different shapes for different categories	
Area	Amounts relative to one another	
Angle	Trends over time	

Adopting a data process

Decideware Business Intelligence

"If you can't explain it simply, you don't understand it well enough."

Albert Einstein

What we now need is a methodology that brings data, tools and people together. In using this process accomplish our end goal, it is critical that we understand what the "field of play" is (i.e. what the key decisions are, and who needs to make them).

The 4 step process below outlines how to bring your data strategy to life.

People

Data

Tools

1. Business question

A good data analytical process always starts with the end in mind. What is the business question that is being asked and why is it important? Generally the answers to these questions lead to decisions being made, actions taken, leading to positive change in our organization or day-to-day working lives. Identifying what needs to be asked and the expected outcomes (if we get the right answer!), helps guide the entire process.

2. Gathering & structuring data

The next step in the process is for us to look at the types of data we need to assist us with making the decision. Do we already have this data at hand, or do we need a new mechanism to help collect it?

Key information that we need about agencies generally comes out of our operational systems, examples being Scope of Work, Agency Evaluation, and Production Budgeting.

Scope of work

During the Scope of Work process we capture the planned work that the agency will undertake during the year, the staffing plan (both the functional areas and resources that will be working on the business), as well as the critical budget information (the fees, out-of-pocket and general expenses).

Agency Performance Evaluation

Agency Performance Evaluation provides us the ability to capture qualitative "survey" ratings in a way that can be analyzed, both in overall level and also digging deeper into the individual questions within the scorecards.

Production Budgeting
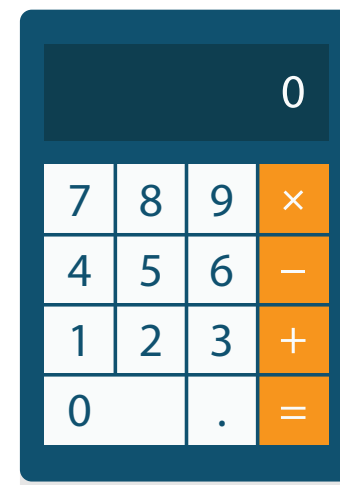
Our Production Budgeting process provides us information about the specific content that will be produced (e.g. television spots, video, images, radio, outdoor etc.), strategic vendors working on our business, and the costs associated with the jobs.

Data can come in a wide variety of forms and quality. Before we can effectively work with it, we need to make sure that it's in a format that can be easily manipulated and mined. "Data wrangling" is a new term that has been coined to describe the techniques used transform & clean source data into a format that is useful for analytics.
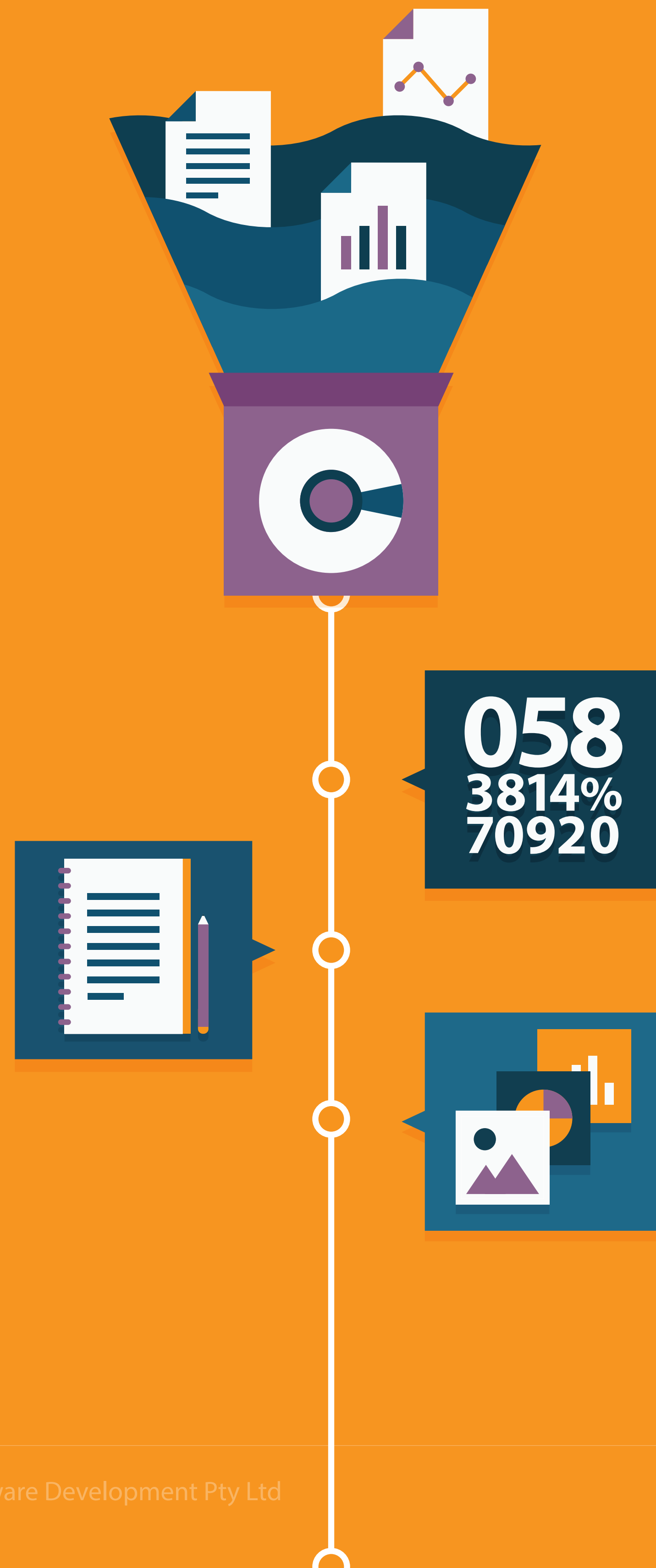
3. Exploring data

Unfortunately the answer to our questions is sometimes hidden deep inside the information set, and it might not be obvious at first where to find it. And once we have located it, we may struggle to use current tools in the best way to help interpret it. To help this discovery process, a new breed of software has evolved to allow us to rapidly move through this sea of data, allowing us to look at the information in different ways using different visualization models.

We also need to be able to filter and drill down into the data. As we explore we need to manipulate different types of information, using numbers, words, and images to represent the data in the best form possible. Visualizations must select an appropriate format to allow rapid and correct understanding.

It can certainly help to be aware of some of the fundamentals of statistics so we don't fall into the trap of "visual-lies". We need to ensure we don't mistake correlation for causation. It's also dangerous to infer more than that the sample size can justify, so we need to make that the sample we are utilizing is appropriate. Too little data and the results may not be valid; too much data and we can get completely overwhelmed!

4. Presenting & communicating the story

Finally once we know what the answer is, we need to be able to communicate this to a wider audience, and in many cases to an audience that might not be as technically familiar with the data as we are. For that reason it's important to be able to engage them, both factually and emotionally.

Many of us have sat through presentations that are "death by spreadsheet", where we are as unclear at the end of the presentation as we were at the beginning. We might understand that important facts have been presented, but we are unsure about what we need to do with them, and we certainly aren't motivated to take action.

Good design plays a very important role in this area. As we have learned from companies like Apple, successful adoption is often as much about the form as the function. A well styled visualization can arouse interest and create an emotional connection, and this leads to a far higher chance of action occurring.

However, any embellishments to the visualization must not distort the content or distract the key message, thus hampering our ability to understand what's important. Pragmatically we need to check for design mistakes such as poorly selected color schemes, multiple fonts and sizes, badly aligned labels or distracting images.
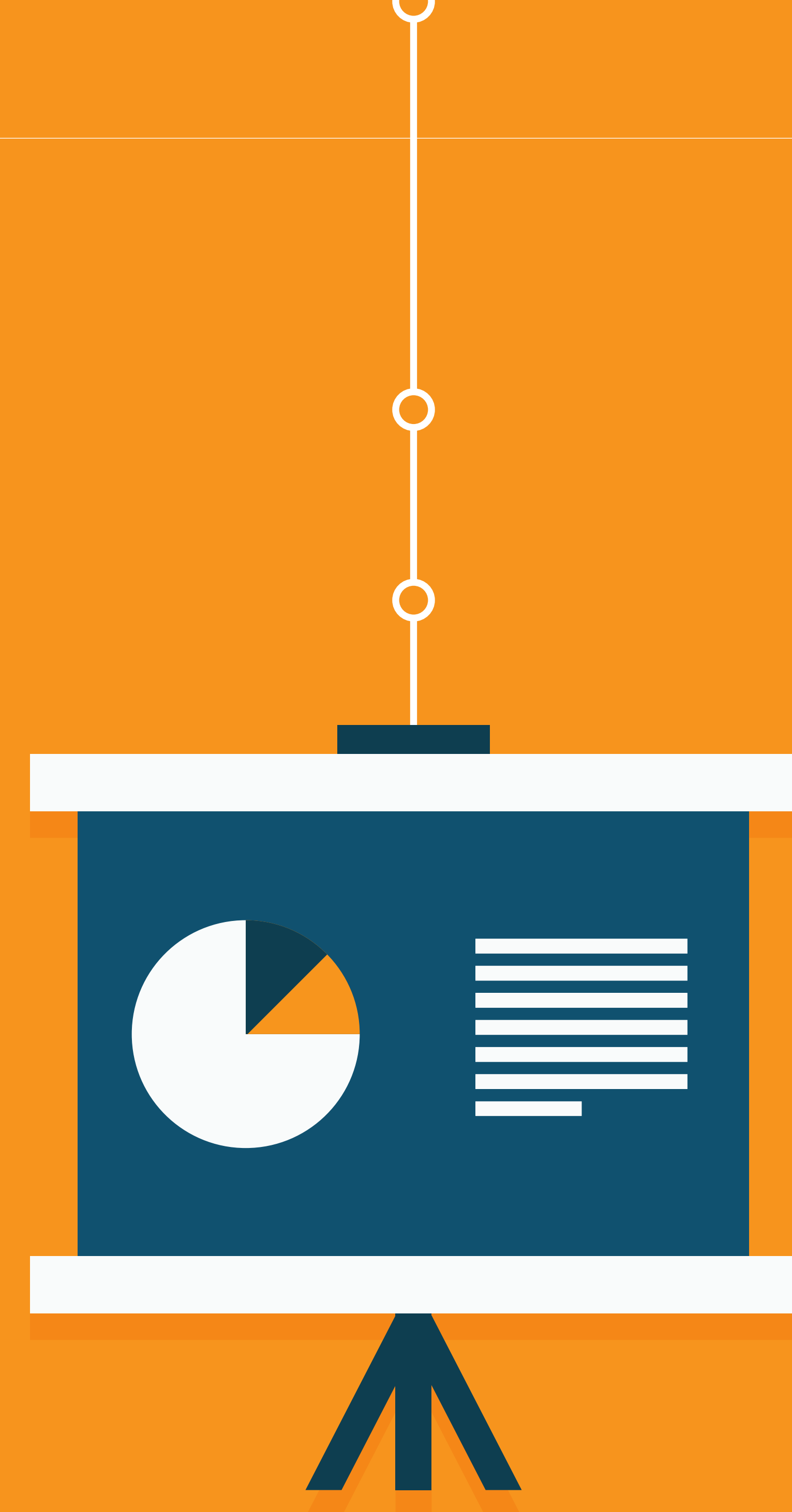
The benefit of dashboards

Decideware Business Intelligence
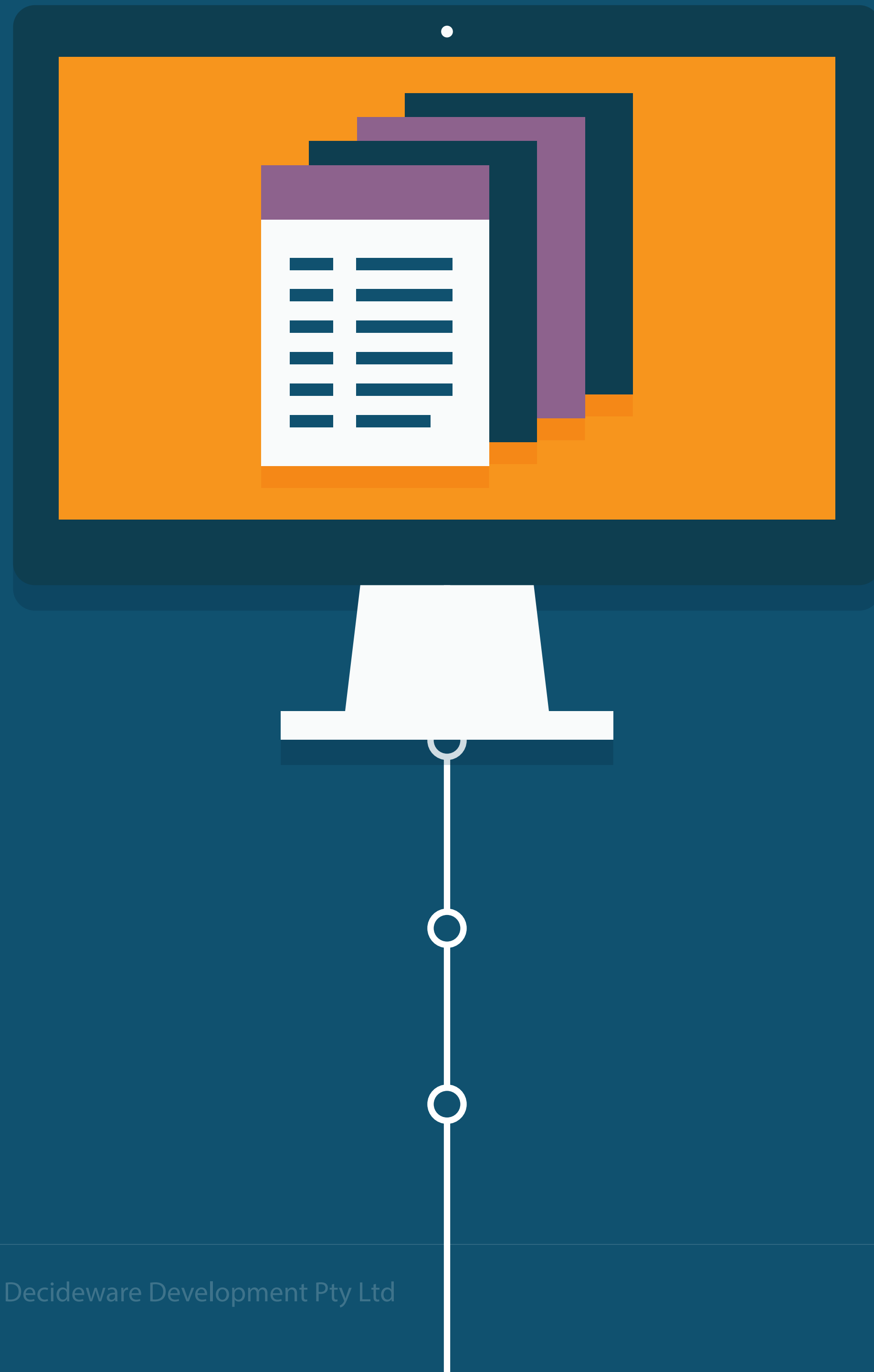
"Give us the tools, and we will finish the job."

Winston Churchill

Canned Reports

Historically one of the most common ways of analyzing data has been to utilize the ubiquitous "canned reports", offered by most software platforms. Some common characteristics of canned report are:

- Generally these reports don't need a lot of interpretation
- They answer a fairly basic set of questions
- They need to be designed for printing or to be delivered as PDF reports, static in nature.
- They often run to many pages, because of the amount of information that's needed to be transferred in order to satisfy the abovementioned wide range of needs.

Canned reports tend to be slower to run, often in PDF format so not designed for further manipulation, carry a heavy payload of data, their format is not optimized for visual understanding, and they must cater to a broad audience. And generally they are "developer-intensive", that is they are written by software engineers who do not have a background in visual communication and storytelling!

Dashboards

Dashboards in the other hand have been designed specifically for analytics, often to a narrower audience that has a need for answers to deep and advanced questions. They need to provide the following features:

- Highly visual in nature, often designed by professional business analysts who can optimize for the medium

- Dynamically filter data and support natural hierarchies to drill into and across data sets

- Very fast response time to allow interactive exploration

- Smart sorting and benchmarking to allow easy identification of outliers

- Represent advanced statistical patterns in an understandable format to assist where correlation, and even causation, exist

- Look at different views of the same data on a single dashboard, allowing you to synthesize and track critical dependencies in the data

- Group set of related data points that can be used in other dashboards to look deep into the information set, in order to uncover other relationships that might not be apparent at a top level
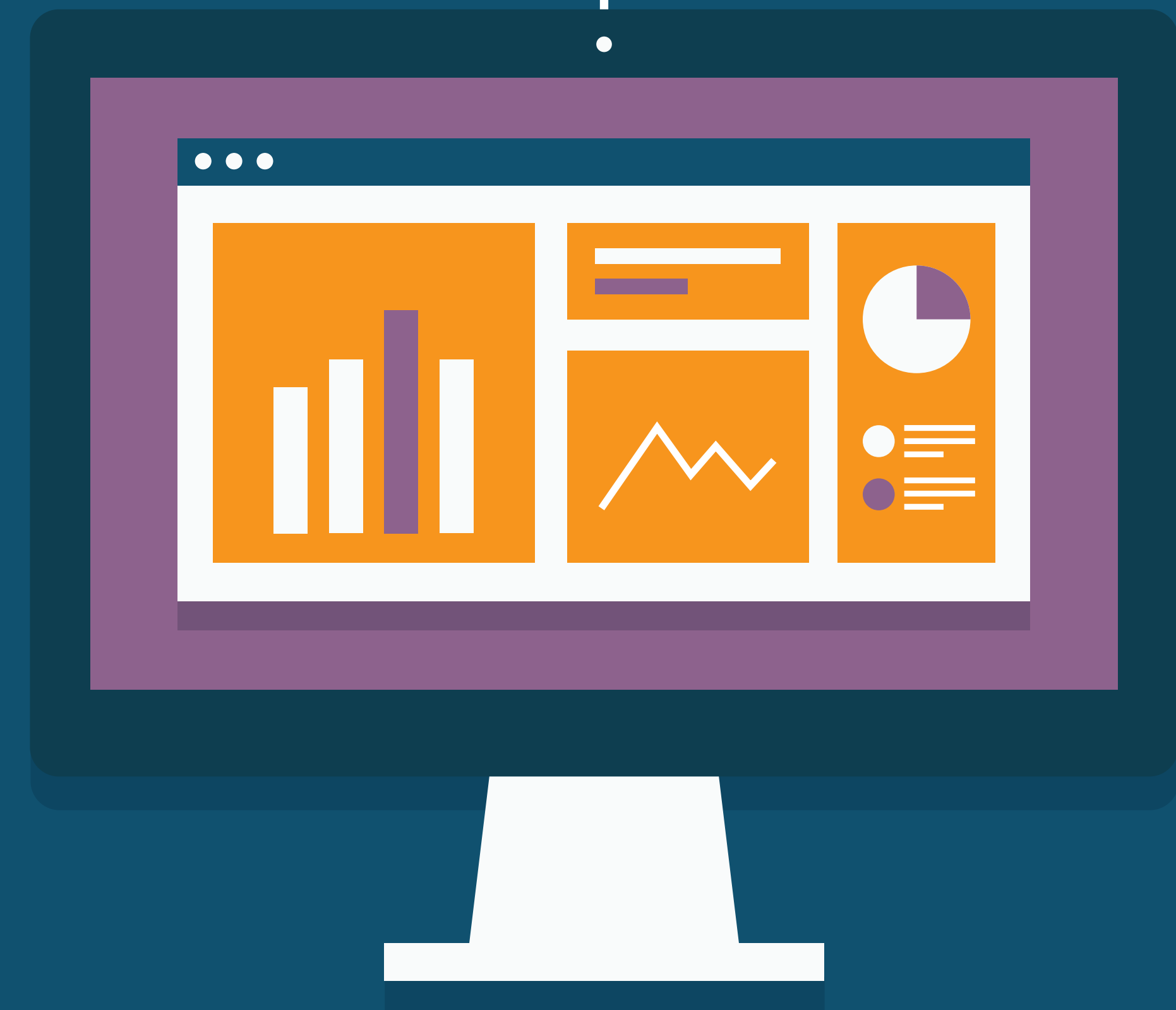
Case studies

One of the areas that our marketing colleagues have long been aware of is how powerful "telling stories" can be in order to motivate people to undertake change.

Stories allow us to rapidly share new ideas, create a dynamic sense of purpose and understand the world by giving us insights into new areas. The best stories leverage our innate enjoyment of blending both fact and emotion. They not only describe **who** is involved, **what** is happening, but also set them into a context that helps you understand **why** they happened.

We can use this narrative technique in looking at the way that we need to interact with data in order to make better decisions.

To tell a meaningful analytical story we need three main elements:

- **Who?** Who is the intended audience?
- **What?** What do they want to know?
- **Why?** What actions do they intend to do with it?

The following case studies illustrate real-life examples of how combining analytical stories, visualization and data can be combined to achieve improved agency management understanding.

**Case Study 1:
Resource mix**

Who?

Marketing Procurement Manager

What?

Show the mix of seniority of resources for each agency.

Indicate the complexity of the work being undertaken (e.g. Origination vs Adaptation vs Localization)
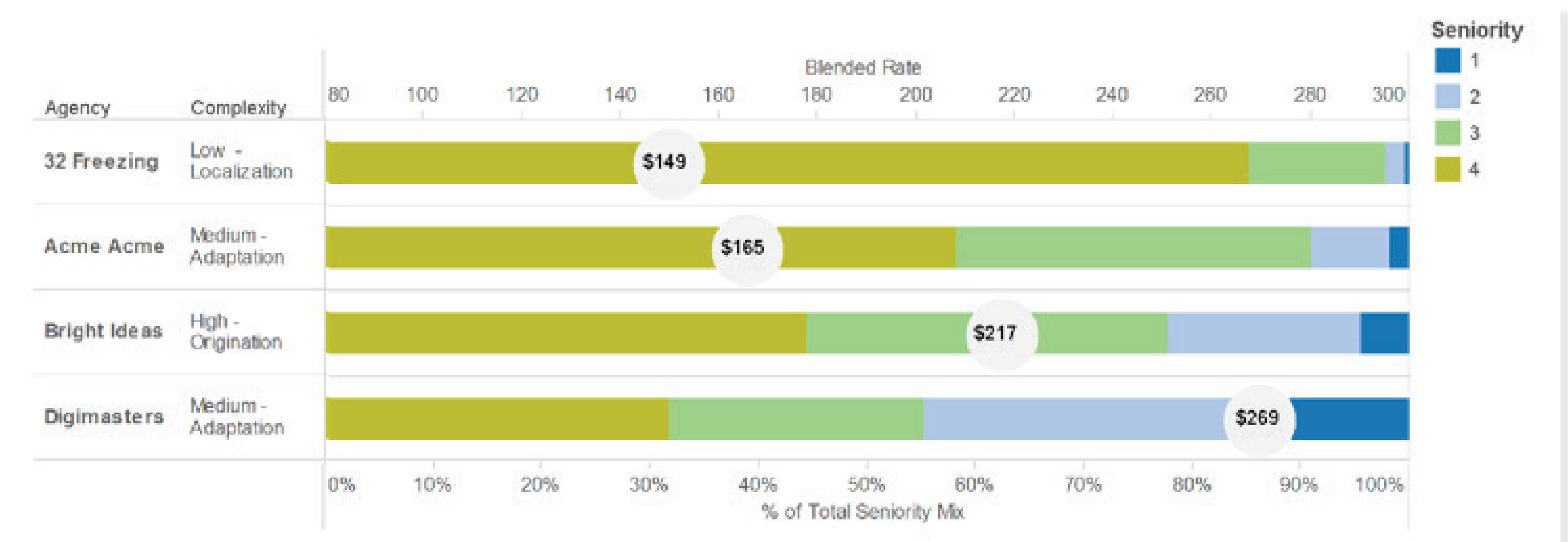
Overlay the proposed blended rate.

Why?

Which deliverables have too senior a mix of agency staff on them, based on the fact that they are low complexity work?

Do their rates seem in line with our expectations?

Could we re-balance some of these to optimize the mix of resources?

Case Study 2:
Evaluation action planning

**Who?**

Agency Management Director

What?

Show the distribution of ratings for our agencies on the latest evaluation across the criteria; strategy, creative, account management and financial.

Overlay the agency self-assessment score.

Why?

Which agencies need an action plan put in place to raise performance?

Do any of these agencies have "blind-spots", where their self-assessment scores show that may not be aware of their need to improve?
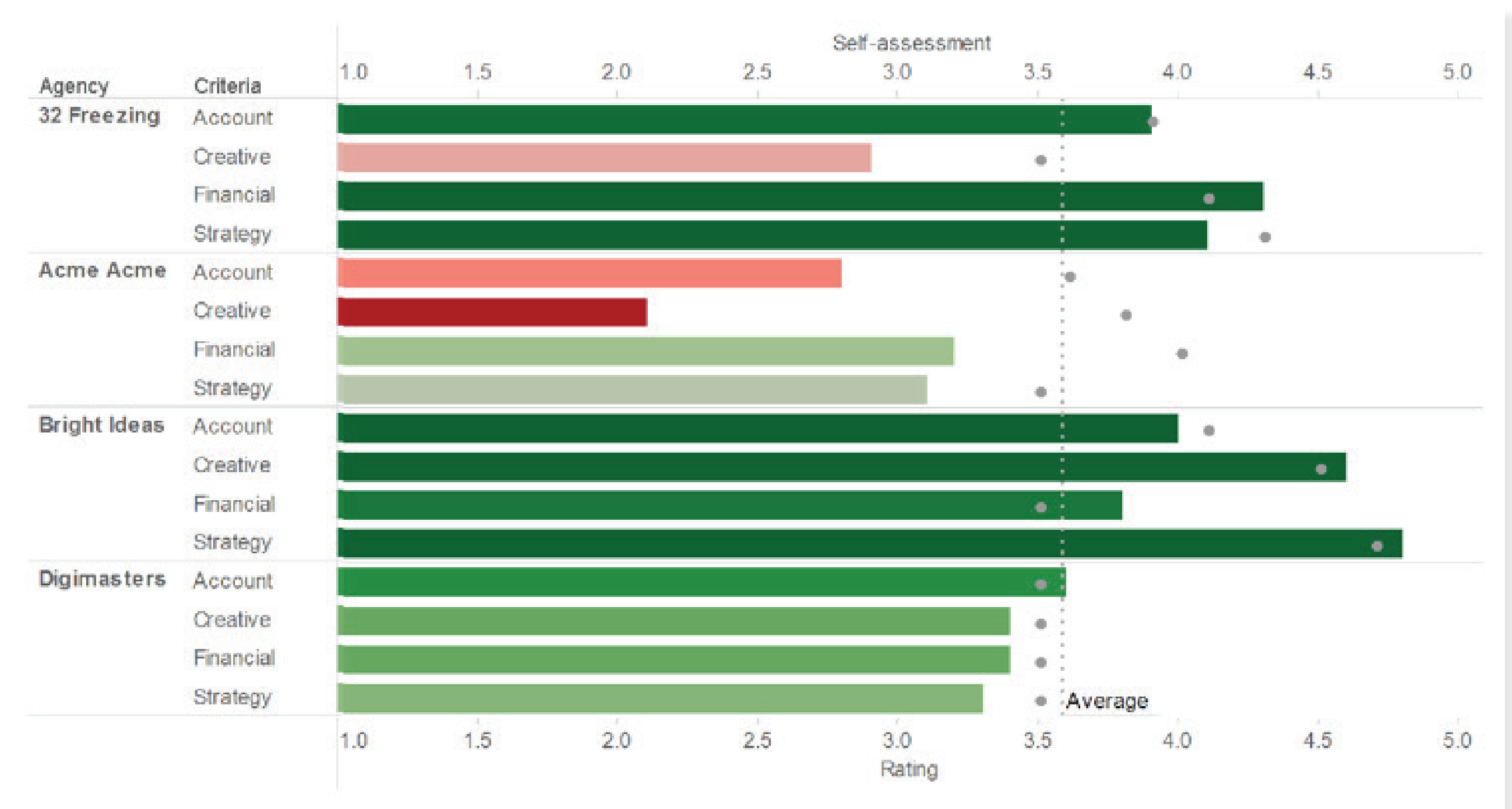
Case Study 3:
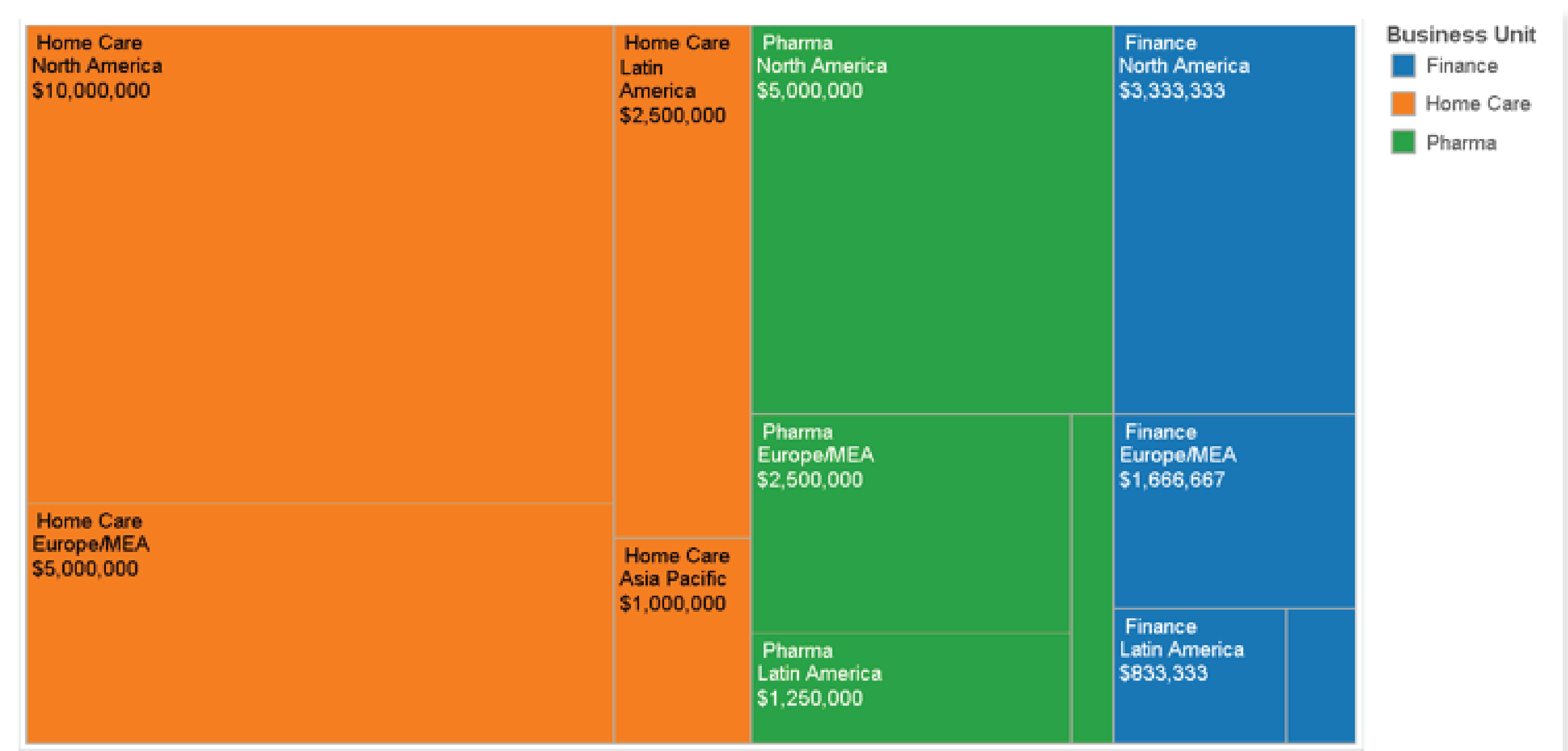**Overall Budget**

Who?

Marketing Finance Manager

What?

Show the breakdown of overall spend by business unit & region, based on the fees from our annual Scope of Work budget.

Why?

Are we allocating the budget in a meaningful way?

Do we need to shift spend to ensure it is better balanced, based on our sales & growth projections?

Case Study 4:
## Spend vs Performance

Who?

Marketing Director

What?

Show the correlation between the latest agency evaluation scores and the blended fee rates we are paying.

Why?

Are there agencies where we see underperforming areas, especially where the rates are higher (and thus probably more senior resources allocated)?

Should we look to move work from low performing agencies to those with better evaluation ratings?
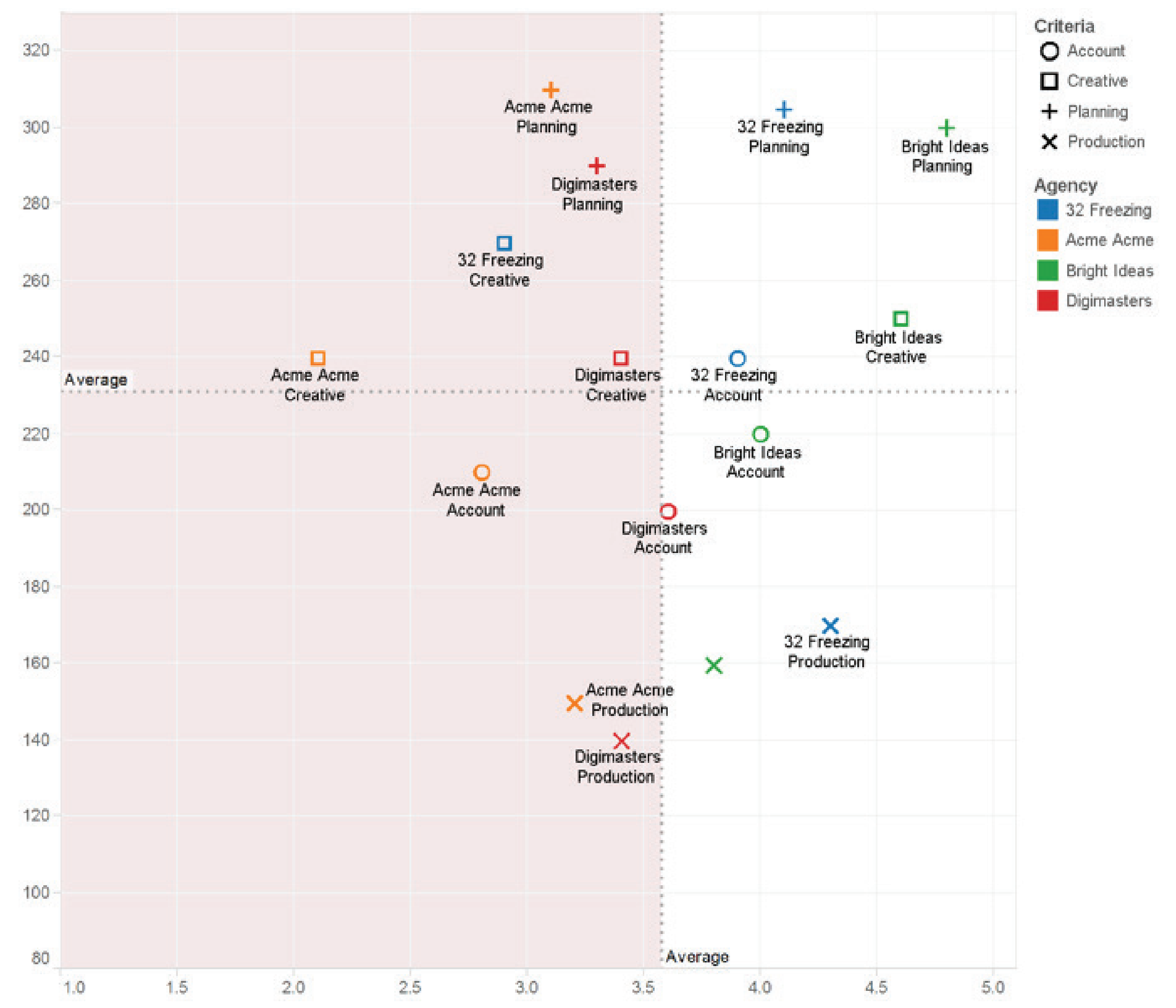
Check your results

Decideware Business Intelligence

# "The value of an idea lies in the using of it."

Thomas A. Edison

In spite of the use of these advanced tools and techniques, we still must not automatically assume that the message we're trying to communicate has had the desired effect.

There are three questions that we can ask ourselves of the analytic process we utilized.

- Did our stakeholders receive the message?
- Did they understand the message?
- Did they make better decisions based on the message?

Of course all three must be in place to achieve success! Feedback and refinement are vital parts of the process in order to build a successful marketing procurement Business Intelligence program.

Ultimately these decisions and actions need to lead to measurable improvements. To that end it is certainly advantageous if these can be tracked with tangible KPI's such as: % budget reinvested, % costs saved, number of days saved in running key processes, reduction in agency "churn" etc.
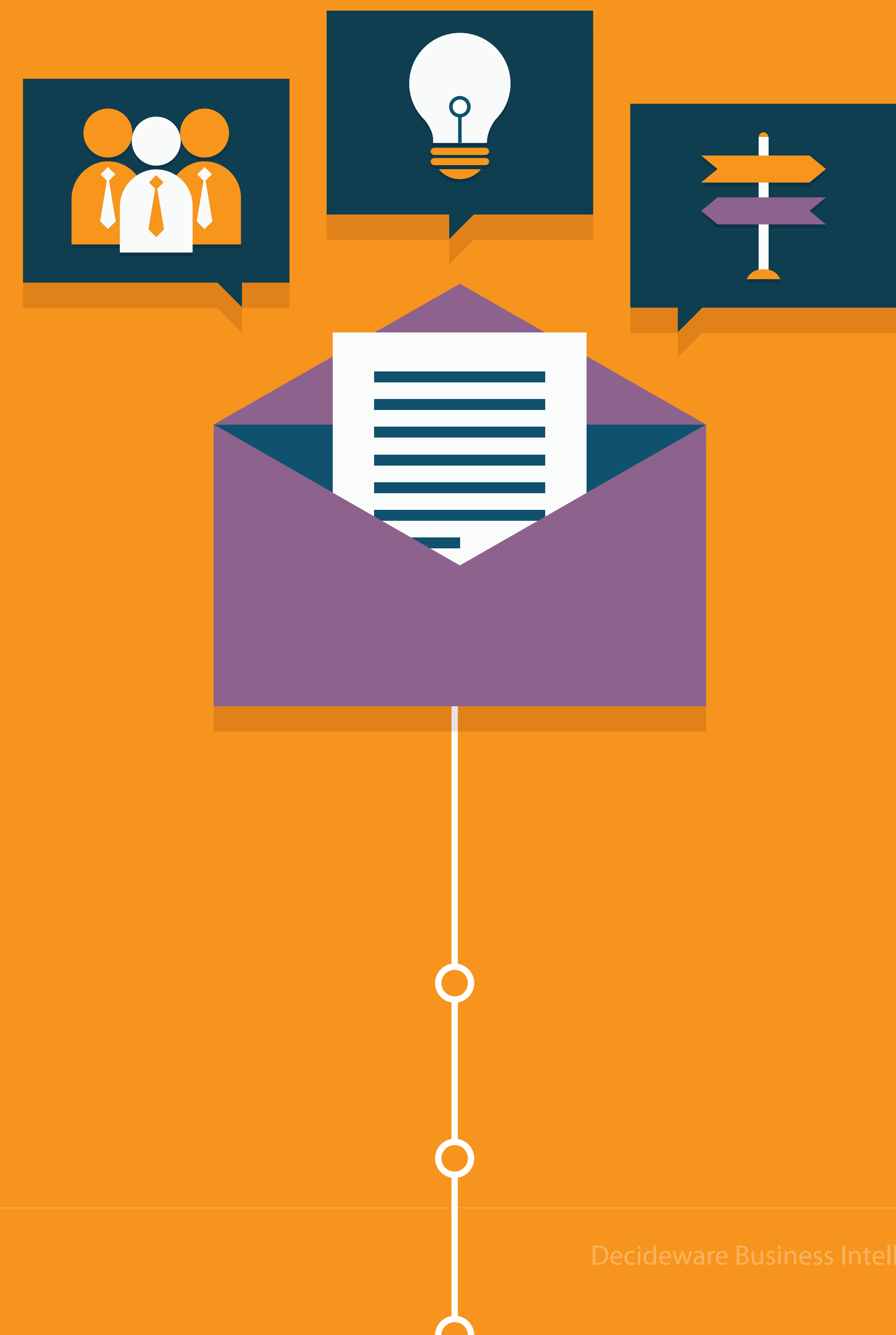
Next steps

We hope you enjoyed this e-Book, and to conclude we have summarized a series of steps you might like to consider in order to build or improve your marketing procurement Business Intelligence program.

1. Review the types of decisions you are currently making (or would like to make!).

2. Analyze what information you would need to underpin those decisions.

3. Look at your current data sets to see if you have fast, reliable access to the measures you need.

4. Put in place processes and technology to automate collection, structuring of the data, as well as the analytics platform to support your data exploration.

5. Create the visualizations you think will best help with exploring the data; try different formats and iterate till you are happy.

6. Create a set of dashboards that allow dynamic exploration, using different views of the data.

7. Provide access to your key stakeholders, allowing them to share in using the dashboards directly.

8. Gather feedback on your stakeholders' usage and learnings. Use it to continuously improve the visualizations and data needed to drive them.

9. Check the results of their exploration; did they receive, understand and ultimately take action?

10. Communicate your success!

About Decideware

Decideware Business Intelligence

About Decideware

Decideware provides major advertisers with the world's best Agency Lifecycle Management Platform.

Decideware's **Agency Lifecycle Management Platform** offers advertisers an unrivalled opportunity to select the best agency, control the scopes, brief the work, administer production fees and manage a highly productive relationship. Access the power of analysis and reporting with Decideware.

Decideware Business Intelligence was created in 2015 to help advertisers make complex data simple.

Decideware BI uses data visualization technology and provides expert services, consulting to build dashboards which answer important questions about advertisers' agency spend, relationships and performance.

Marketing & Procurement teams now have the power to quickly understand where and how they should focus their efforts to produce significant gains.

Website
www.decideware.com

Agency Lifecycle™ Management Platform

The platform consists of five modules:

Select	Selection Manager
Scope	Scope Manager
Brief	Briefing Manager
Produce	Production Manager
Evaluate	Evaluation Manager