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**Responding to the conduct risk
agenda: Using analytics to prevent
and detect inappropriate conduct**

Mark Woodley and Nicholas Brischetto

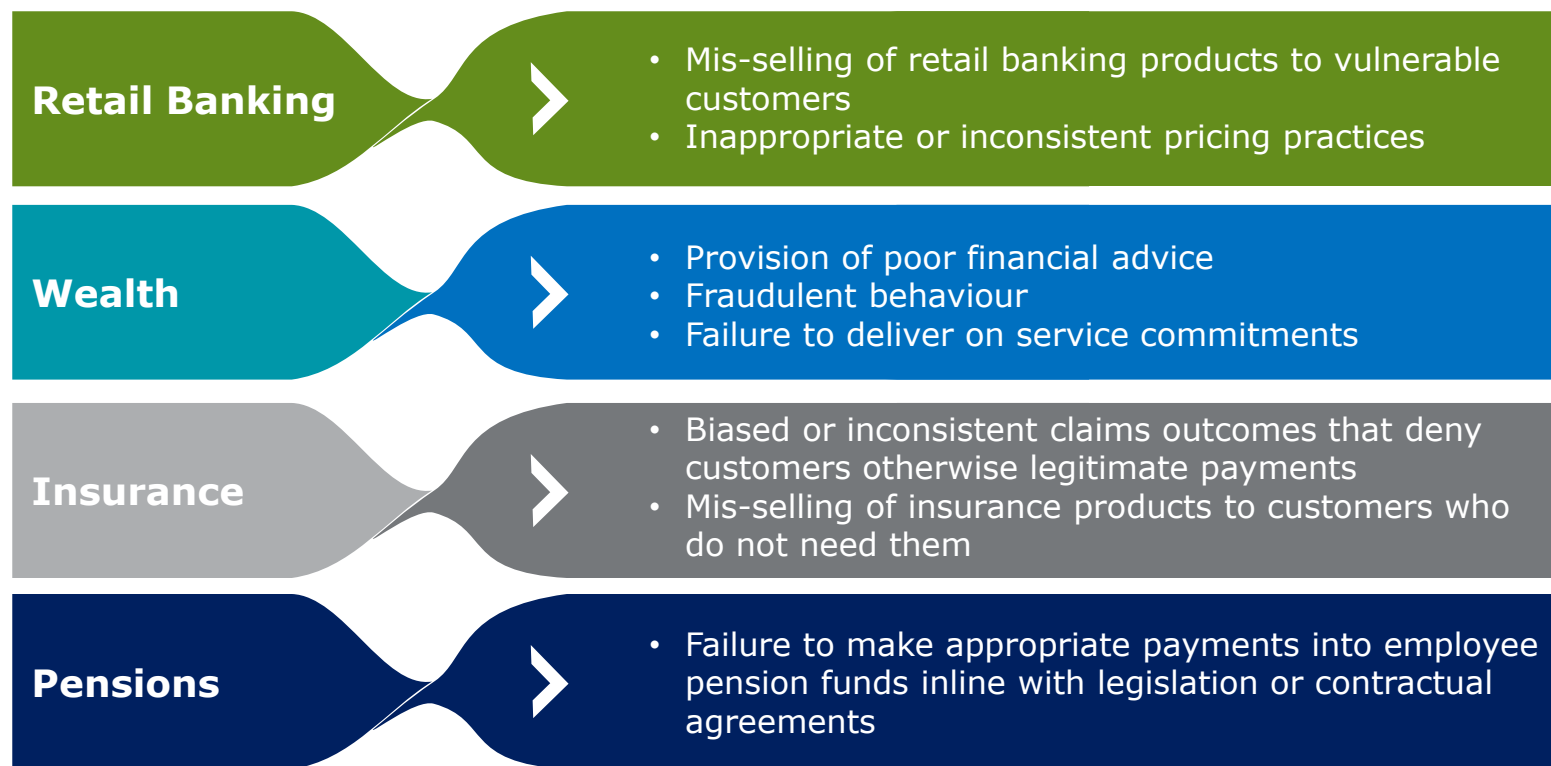
Deloitte's Financial Services Seminar 2017

Conduct Framework

Conduct Framework

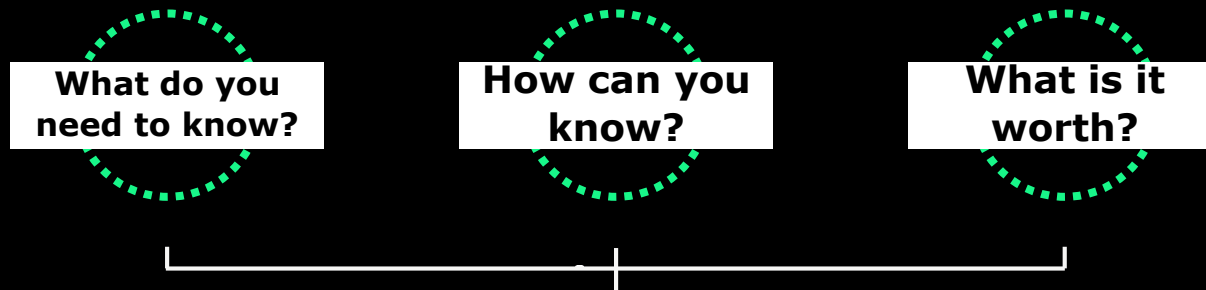
What does conduct look like?

Conduct in the financial services space can take many different forms.



Conduct Framework

Deloitte approach



1 Equip to look forward

Identify and manage conduct vulnerabilities to mitigate risk and enhance customer experience

2 Detect and control

Design and operate monitoring and supervision processes / frameworks

3 Remediate or Accelerate

Take action to fix wrongs, protect reputation and brand and to accelerate strategy

Conduct Framework

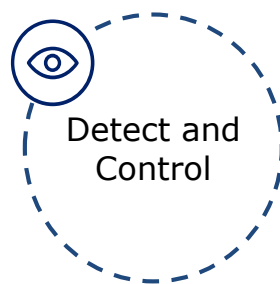
Application of analytics



What lies ahead?

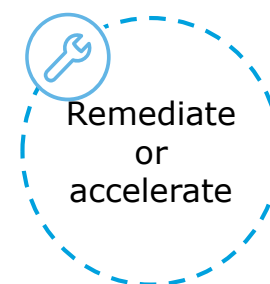
Potential Analytics

- Deep dive into customer, product or channel segments
- Comparison between segments to identify misalignment in expectations, needs, products and/or distribution channels
- Identify areas of high risk for further analysis
- Provide insights into product design or required process improvements



Where is our greatest risk or opportunity?

- Analysis of data within defined risk domains
- KRI analysis of specific risks
- Outlier and threshold reporting
- Enhancement of existing Management Information



How do we amend issues and accelerate strategy?

- Quantify nature and extent of the issue and impacted customers
- Identify and classify risk profiles of impacted customers, associated products and/or distribution channels
- Feed into compensation calculation engine to determine financial impact on a per customer basis
- Feedback into product re-design efforts
- Future continuous monitoring

Taking action

Taking Action

Why use analytics?



Volume and velocity of information



New insights



Evidence-based decisions



Enhanced efficiency and accuracy



Leverage existing data rather than burden with additional reporting

Taking Action

Common challenges

Need for proxies

There is a need to synthesise proxies for relevant behaviours and customer outcomes

Original purpose of data

Available data was often gathered without the conduct use-case in mind

Legacy systems

There is a need to tap into legacy systems in order to understand conduct history

Single customer view

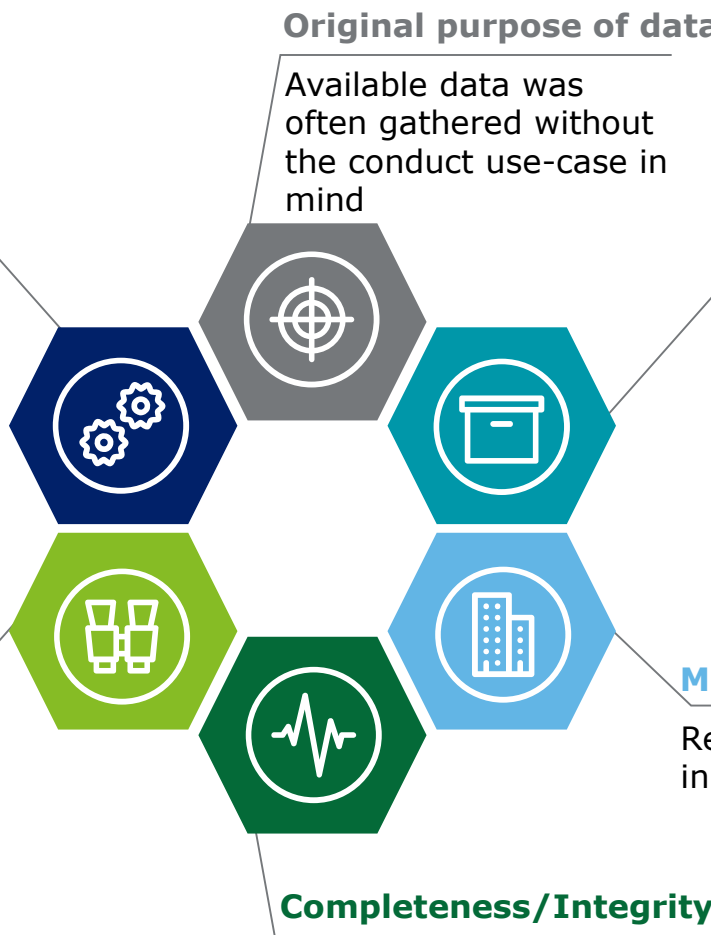
Single actor views are often not readily available given the fragmented nature of available data. "Who are my customers?" is the classic challenge.

Multiple business units/systems

Required data is often located in multiple disparate systems

Completeness/Integrity

Varying levels of completeness and integrity in available data sets



Taking Action

Moving forward

Phase 1

What can you do with pre-existing business data?

Change program

- Better linkages across IT systems
- Improved data controls
- Forward-looking initiative not constrained by legacy challenges
- Improved facilitation of conduct proxies

Phase 2

What can you do once conduct-oriented enhancements have been made to relevant systems and architecture?










Enhancement program

- Enriched perspective of customer risk profiles via demographic data sets
- Public narratives and sentiment sourced from news and social media

Conduct Framework

Application of analytics *continued*

Deloitte has worked on a wide range of conduct matters in the financial services industry.

Line of Business	Major Bank A	Major Bank B	Major Bank C	Insurer A
Group Level				
Retail Banking				
Wealth				
Insurance				
Pensions				

Conduct Framework

Application of analytics *continued*

There are many analytic techniques that bring value to conduct solutions, and merit in both deductive and inductive approaches.

Segmentation	Visualisation	Rules-based analytics
Clustering	Distribution curves	Key Risk indicators
CART models	Scatter plots	Statistical significance testing
Cognitive computing	Histograms	Fuzzy matching
	Heat maps	Robotic process automation

Case studies

Case study 1 – Inappropriate financial advice

Deloitte Australia teamed up with a 'Big 4' bank to identify all financial advisers who provided inappropriate financial advice to customers

Requirement to Locate and Remediate Instances of Poor Financial Advice

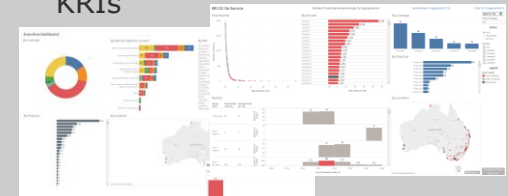
- 'Big 4' bank was required to assess the appropriateness of all financial advice provided to 'retail' customers across all adviser channels for a period of 7 years
- Develop and implement a suite of key risk indicators (KRIs) to assess the bank's 4,000+ advisers across all adviser channels
- Finite time and resources available to conduct adviser assessment

Source Data and Apply Analytics

- The project sourced 550m records from 18 source systems across the bank's financial advice channels for a period of 7 years
- All data was standardised into 6 key data types
 - Adviser
 - Risk
 - Legal
 - Revenue
 - Policy
 - Customer
- 20+ KRIs developed, tested and delivered
- 30 interactive Tableau dashboards developed to consolidate KRI results for targeted adviser review

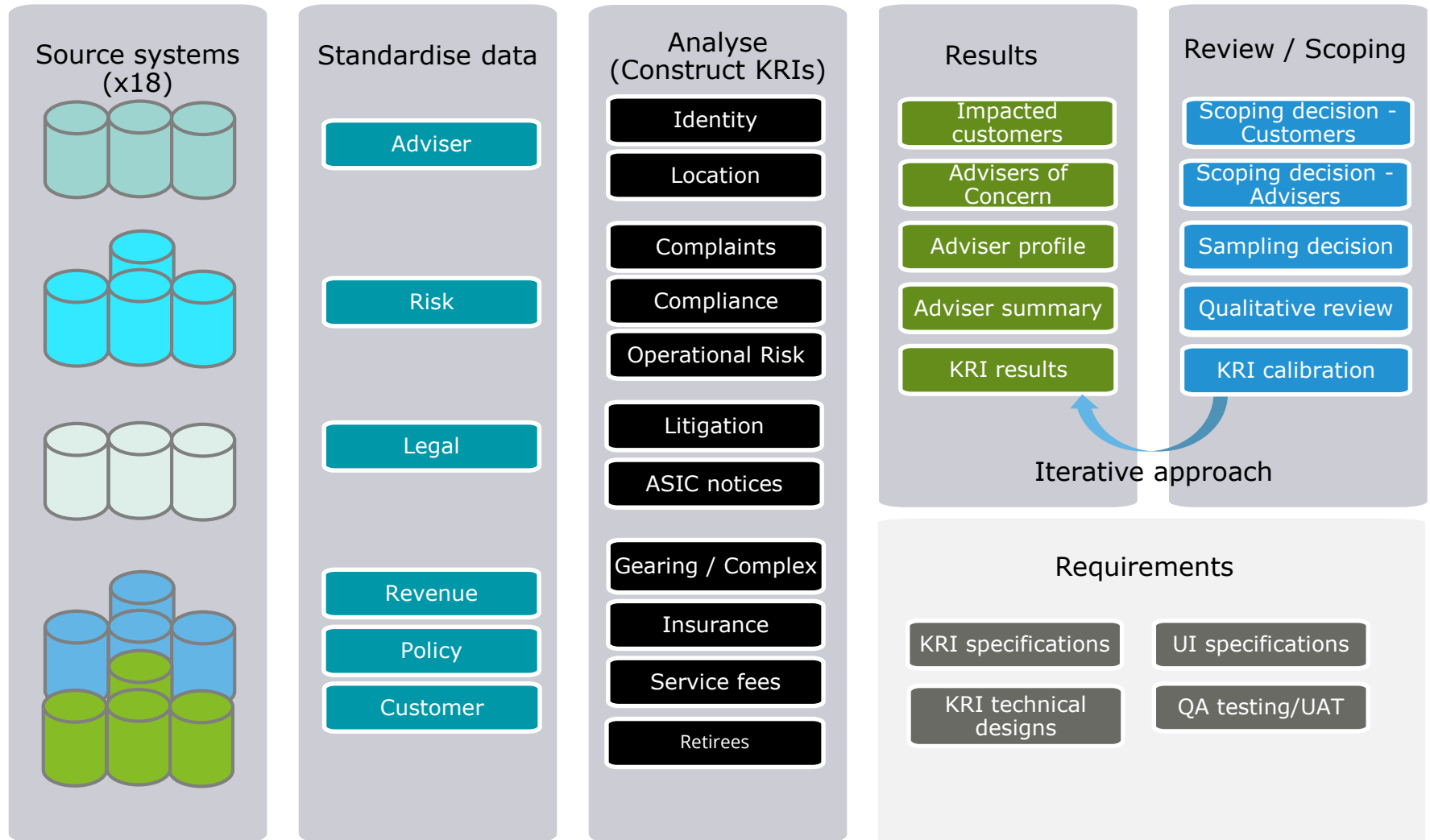
Identify High Risk Sub-Populations and Apply Treatment Strategies

- From a total of 4,000+ advisers, we identified a targeted sub-set of advisers who could be effectively assessed by SMEs for inappropriate advice
- Results were then used by the business to:
 - Review adviser specific risks
 - Perform sampling
 - In/out scope advisers for subsequent customer remediation
- 9 specific areas of concern were identified from the suite of 20 KRIs



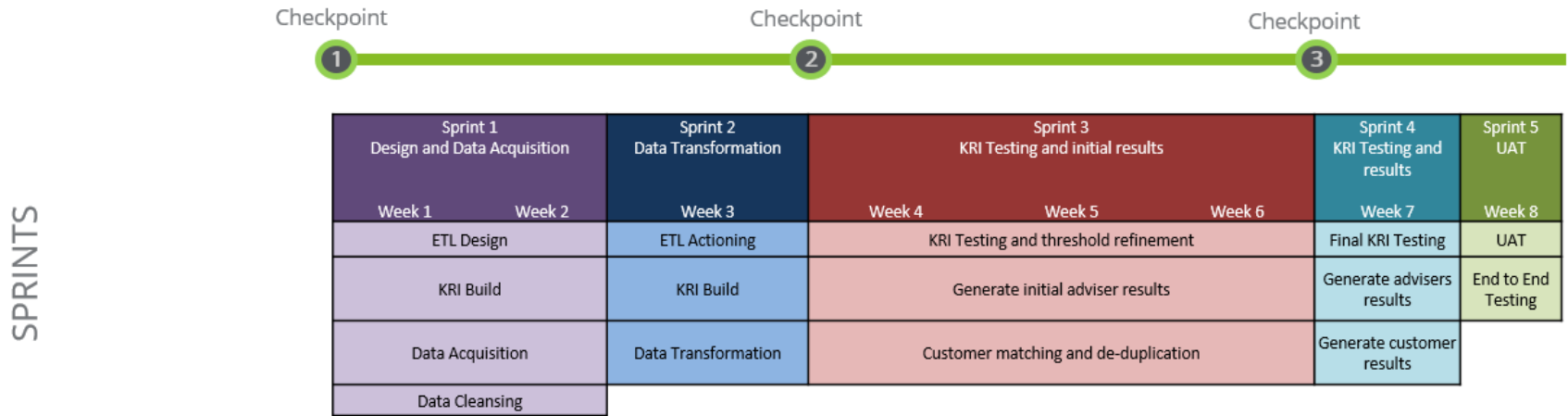
Case study 1 – Inappropriate financial advice

Advance planning of conceptual design of the analytics solution

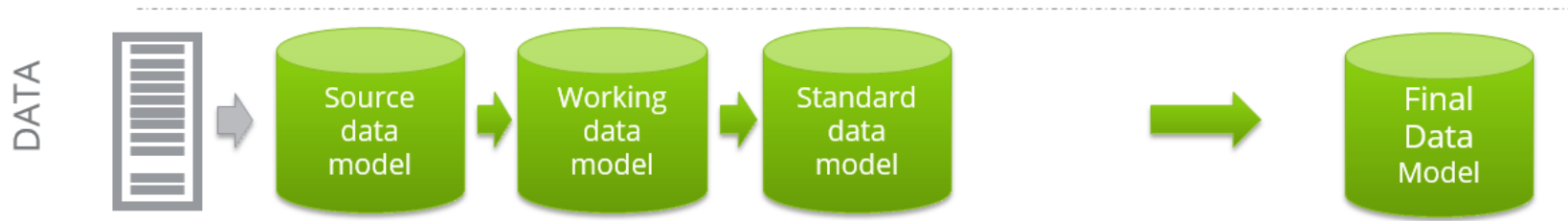


Case study 1 – Inappropriate financial advice

An agile approach to analytics execution

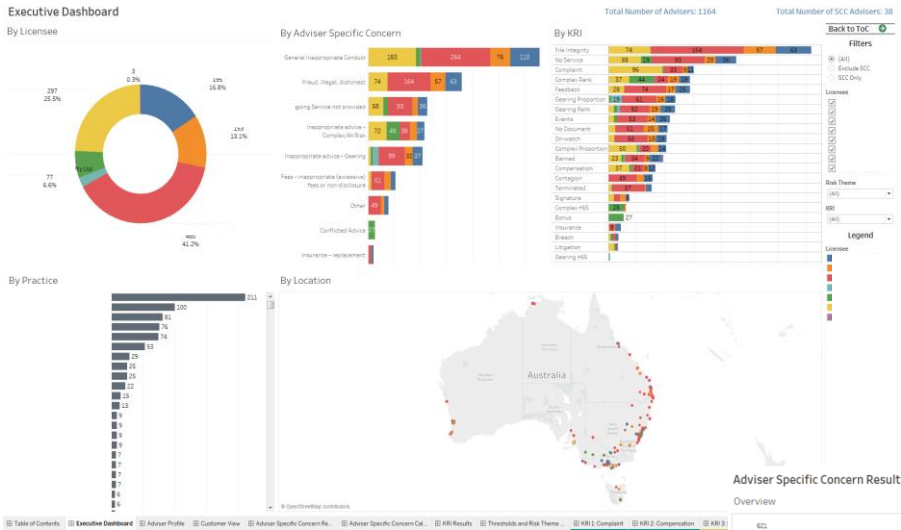


- Checkpoint
- ① All project requirements have been met and inputs for Sprint 1 delivered.
 - ② Sprint 2 – ETL is complete and KRI's have been built and are reading for testing.
 - ③ Sprint 3 – KRI testing and threshold refinement complete. Initial advisers results generated.

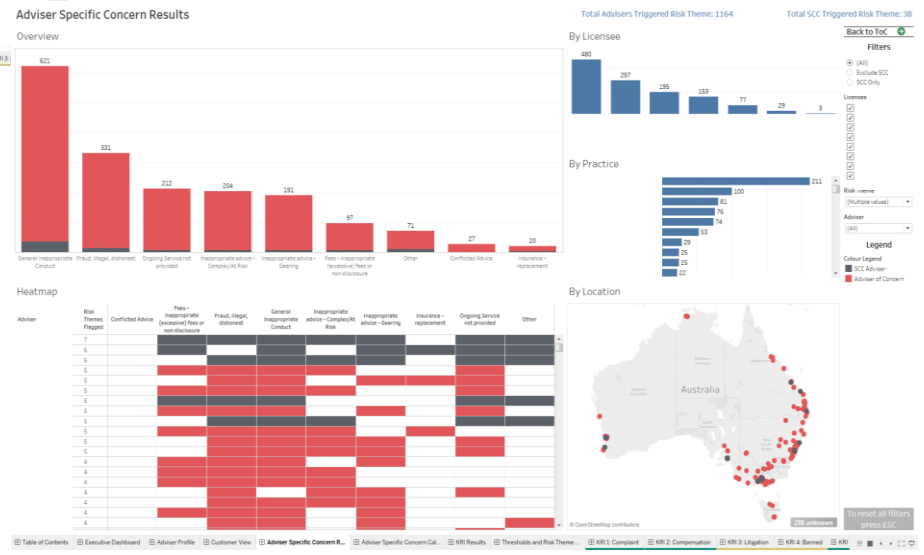


Case study 1 – Inappropriate financial advice

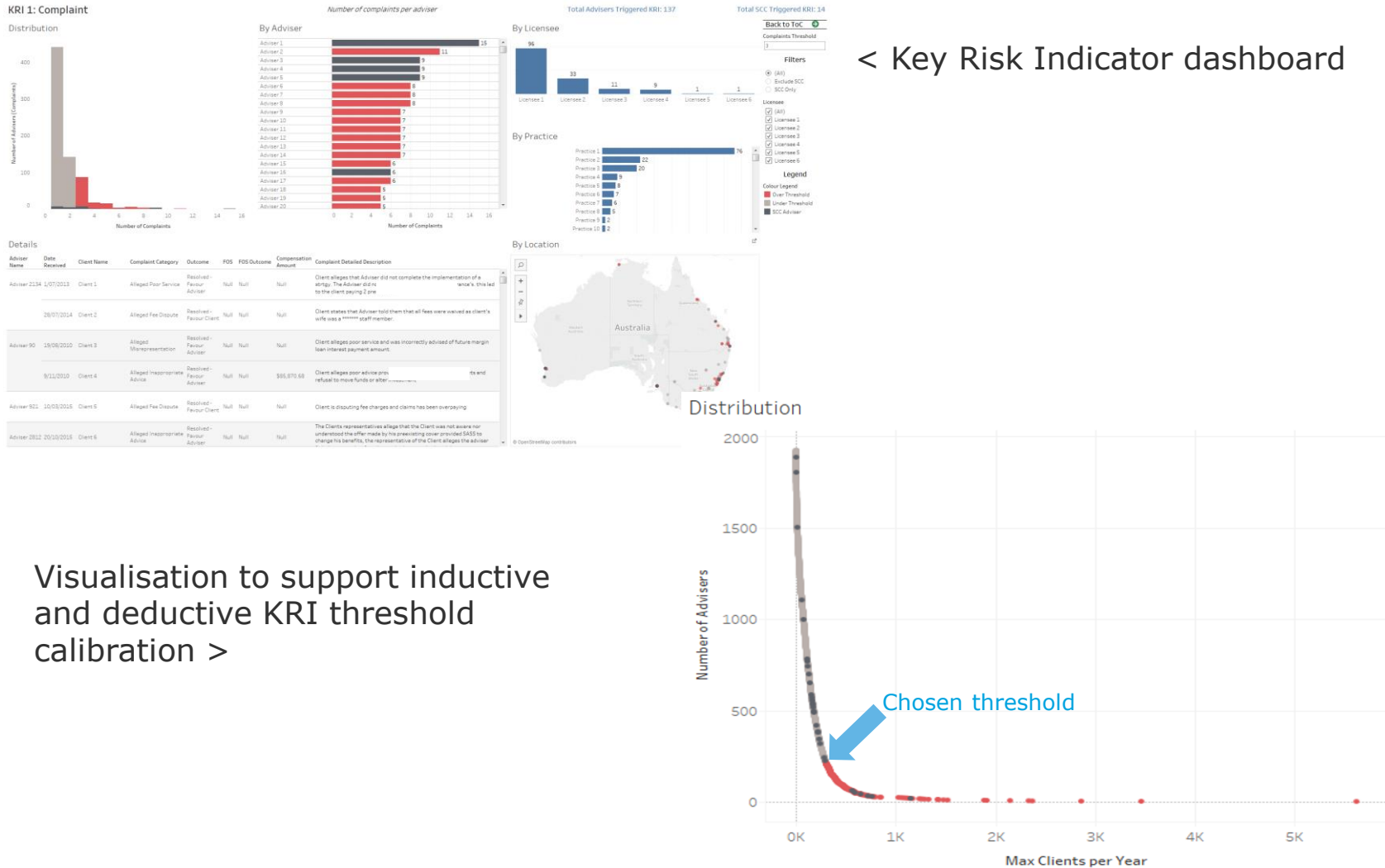
< Executive summary dashboard



Risk-centric dashboard >



Case study 1 – Inappropriate financial advice



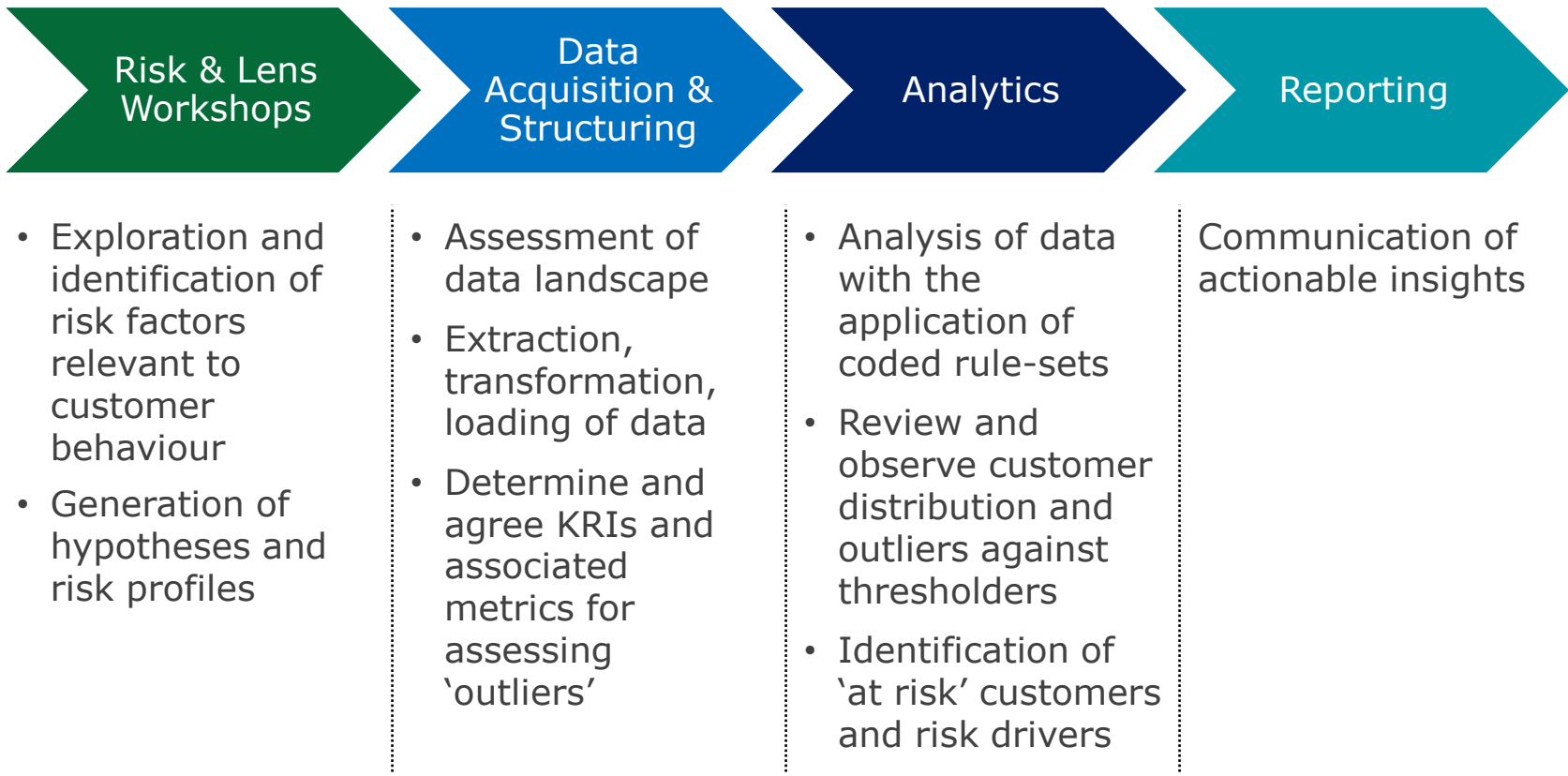
Visualisation to support inductive and deductive KRI threshold calibration >

Case Study 2 – Sales of higher risk products to vulnerable customers

Background

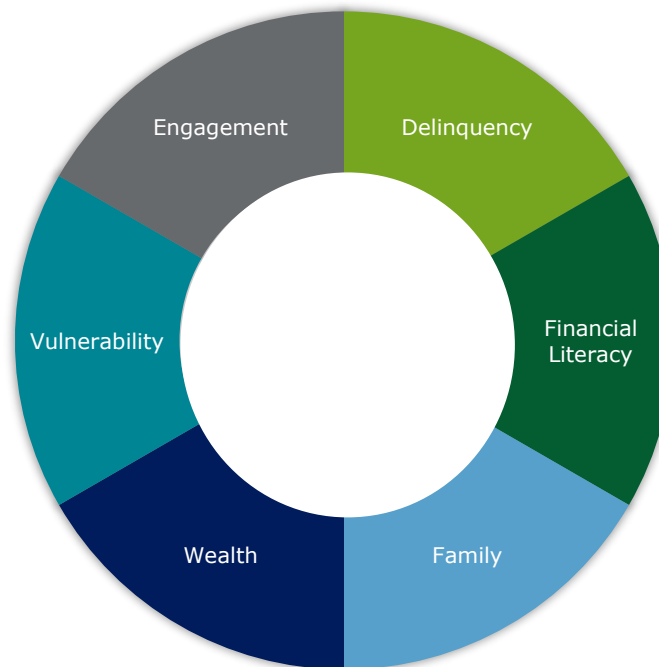
A Major Australian Bank undertook a targeted review of their product and customer portfolio, to understand if their products aligned to customers' needs and expectations.

Journey



Case Study 2 – Sales of higher risk products to vulnerable customers

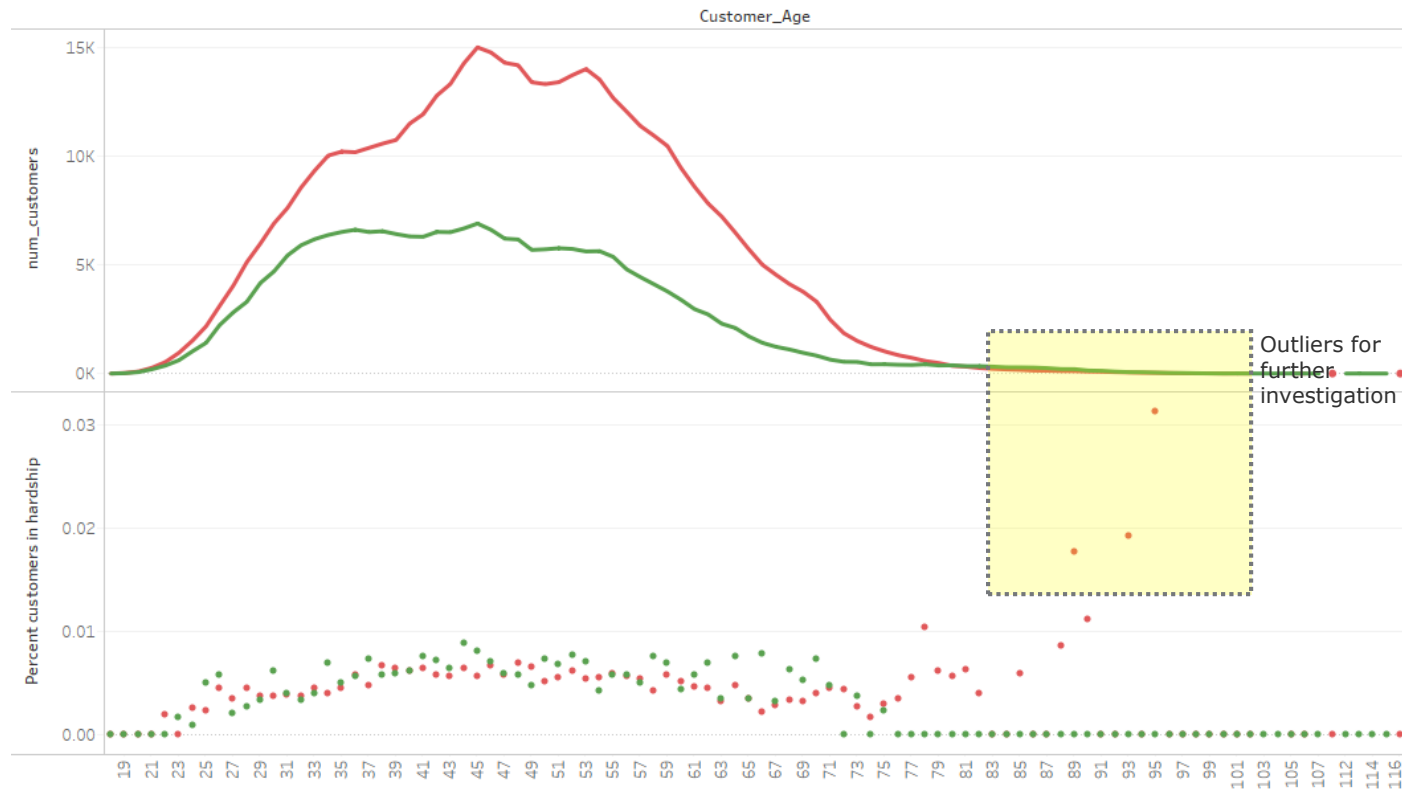
Structured hypothesis generation and subsequent creation of analytic rule-sets starts with putting the customer in the centre and understanding key risks.



Case Study 2 – Sales of higher risk products to vulnerable customers

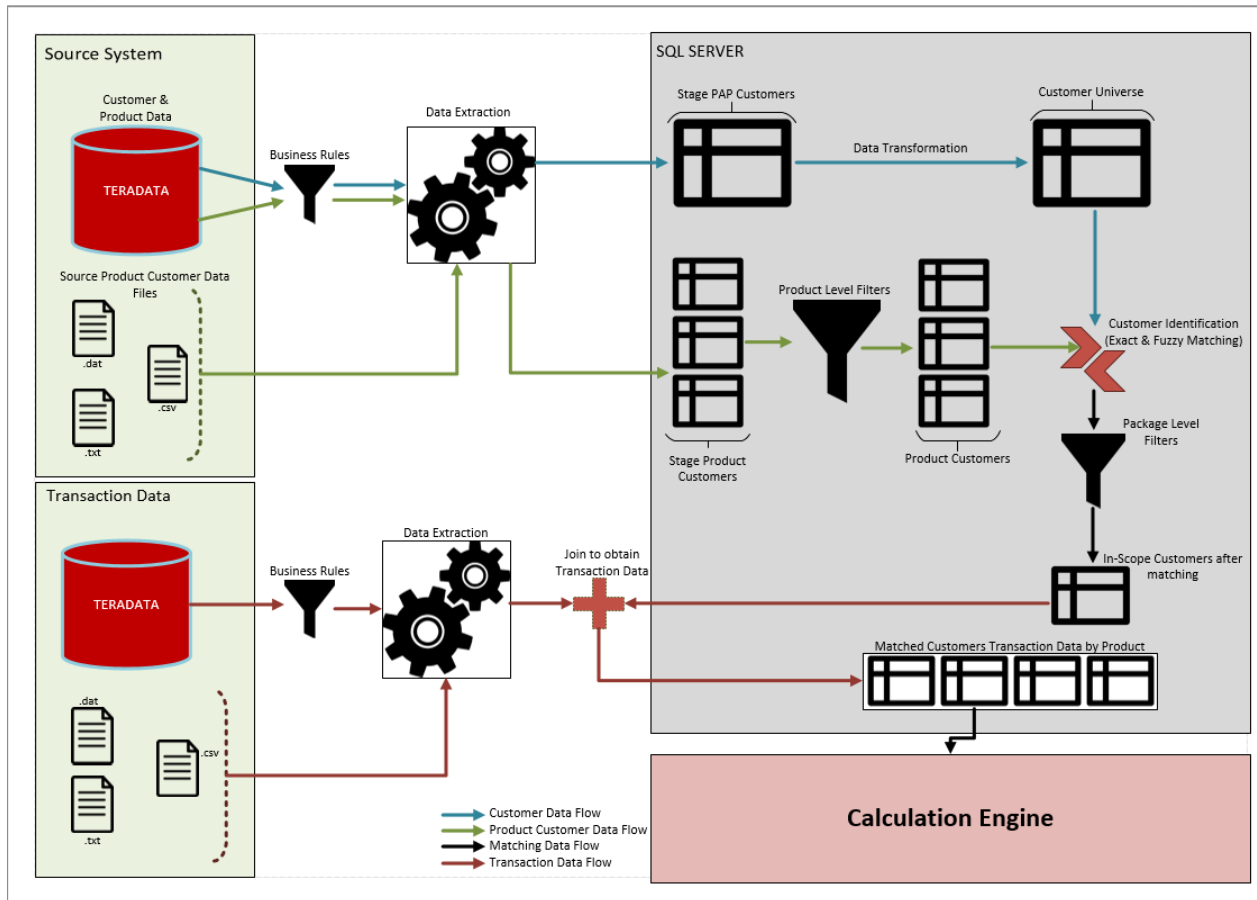
One of the insights discovered was that certain senior customers in a particular brand had a greater likelihood of being in hardship. While the issue was not systemic, proactive outlier reporting was recommended as an action to equip to look forward.

Hardship



Case Study 3 – Remediation automation

Once logic to identify risk and impacted customers has been established, there is benefit in automating the process to enable large-scale remediation programs.



Speaker profiles



Mark Woodley
Lead Risk Analytics Partner, Deloitte Australia
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Mark leads the national Australia Risk Analytics group and is responsible for over 75 analytics professionals. Mark has been with Deloitte for over ten years and has been a partner for eight years. Mark has over 20 years experience with working with client data to provide tactical and strategic insight.

Mark and his team have been using analytics on conduct risk remediation and mitigation engagements for the past three years covering primarily 'top end of town' financial services industry clients. Mark has helped clients remediate known issues such identifying advisers of concern and quantifying the number of impacted customers who received inappropriate financial advice. Mark and his team's work have covered all parts of the financial services conduct landscape including financial advice, insurance, loans and superannuation. His team continue to work actively in this space, including assessing conduct risk for non-financial services clients looking at issues such as employee underpayments relating to the conduct of the company with respect to its employees.



Nicholas Brischetto
Account Director, Risk Analytics, Deloitte Australia
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Nicholas is a Director in Deloitte's Sydney Risk Advisory practice with over ten years of experience in financial services. He is a Risk Analytics specialist who focuses on the use of analytics to provide strategic and tactical advice in support of conduct initiatives. He possesses deep technical expertise in a variety of analytical procedures which bring insight and precision to conduct-related matters and has a background in Information Technology, Banking and Finance.

Nicholas provides advice on methodology design, assessment of implementation effectiveness and execution on analytics-enabled conduct initiatives. He has worked on a wide range of conduct projects in the financial services industry, operating in independent advisory roles on regulator-driven initiatives as well as hand-in-hand with clients on execution matters. His work has included the build and application of Key Risk Indicators to identify areas of concern, through to programs to identify customers impacted by identified poor conduct. The scale and complexity of these projects extended to multiple business divisions and current and legacy systems, and involved the use of analytics to provide value-added insight from available data. Nicholas also maintains a related focus on Risk Sensing, which involves the detection and prevention of risk events including matters which might drive conduct-related issues.



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