

Building An Analytical Roadmap: A Real Life Example

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The Issue

Environment:

- Big data analytics is probably going to be remembered as a technological, if not, an industrial revolution
- New technologies are rolling off the assembly line daily
- New terminologies and approaches
- What matters seems to changes quite frequently
- I hear stories from my competitors, am I behind?
- Do I need this stuff?
- How do I know which are the new opportunities these technologies allow me to win?
- Skills are short
- Which skills do we need anyway?
- How do we organise them?
- How do we ensure we are compliant?

Outcomes

- Paralysis by analysis
- Many customers do not know where to start?
- They keep revisiting the same issues over and over again
- The delve into technological questions before answering the what and why questions.
- Many organise several 'vendor' contests without a clear end insight
- They lack coherent approach that leads to faster results
- They involve either too many or too few stakeholders

Where do I start and how do I plan for big data analytics?

Establishing An Analytical Capability

Principles:

- Analytics is a business outcome enabler
- It bridges commercial management and IT expertise
- There are four layers to be brought together successfully

Outcomes

- Adopt a methodology that ensures focus on business priorities
- Avoid delving into technological questions before answering the what and why questions.
- A coherent approach that leads to faster results
- Involve all stakeholders and experts.

Business Layer

What needs to be optimised, prioritisation, alignment with overall strategy, process changes etc.



Analytical Layer

How analytics supports business objectives, how they are achieved, business case, partnerships with business



The Capabilities Layer

The expertise required to enable new analytical based processes, skills, scale etc.



Technology Layer

Technologies required to enable data science & analytical capability, current estate assessment, addressing gaps and establishing, operating models.

The Situation

• The Organisation

- A Multi-national, multi-brand retail company
- Some CRM data
- Some digital data

• The vision

- We would like to catch up with competitors
- Gather and manager data properly
- Harness the power of analytics to manage customer lifecycle
- Our baseline is low

• The issue

- Where do we start?
- We did several vendor and technology rounds
- We realise it is not just technology

Business Layer: Optimize Not Just Measure KPI

Key Questions:

- which key performance areas to focus on
- What needs to be optimised for each KPI
- How will business processes change?
- How will new processes be adopted?

Example: Customer Lifecycle Management

Key CLM performance areas

1 Drive existing customer revenue growth

2 Reduce cost of customer acquisition and retention

3 Identify right set of customers to acquire and target channel

4 Increase loyalty of customers

Optimization Opportunities

- Share of wallet maximisation
- Basket size increase
- Cross-sell rate increase
- Attrition rate reduction
- Lifetime value optimisation
- Response rates by channel maximisation
- Customer lifetime value shift to top end
- Increase % of transactions on loyalty card
- Increase purchase frequency

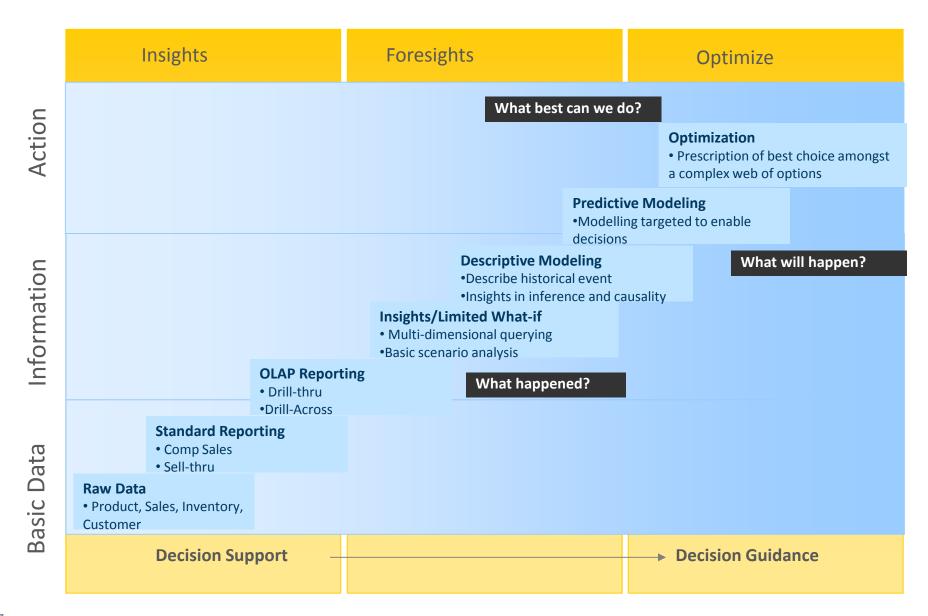
The Analytical Layer: Horizontal Capabilities

To Meet Business Objectives:

- Translate business strategy into big data analytics strategy – answer:
- Which key horizontal capabilities to build?
- How to build them overtime?
- Organisational choices?
- Investments?
- Business case?



The Capabilities Layer: Enable Analytical Strategy



Technology Layer: Limiting Options

To enable utilisation of analytical capabilities:

- How to provide and manage the data?
- How to enable data science and analytical experts?
- How to democratise analytics with end users?
- How to reduce time to value and integrate with business applications?

Data Management

- Data collection & creation
- Data integration, mashing
- Information management
- Scaling
- Physical storage & cloud options

Visualisation

- Executive dashboards
- Granular drill down
- Real time transactional
- Train of thought
- Sharing & collaboration

Technology Roadmap

Data Science

- From simplest to most sophisticated
- In-house vs. service
- Scale, variety & complexity
- Time to market

Knowledge capture

Integration

- From concept to production
- Enabling business processes and downstream business applications
- Collecting feedback
- Time to market
- Operating models & governance

Establishing An Analytics Roadmap

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Main Owner

Roadmap Creation

Business Layer

1. Business Partnership

- 1. Establish business priorities
- 2. Create support & urgency
- 3. Create partnership structure
- 4. Align organisation

Sponsors

Business

Owners

Business

1. LOBs willing to invest

1. Prioritisation

- 2. Identify their priorities
 - 3. Estimate business case

Analytics Layer

2. Analytics Value Generation

- 1. Understand business problems
- 2. Translate business problems into analytical problems
- 3. Assess and organise capabilities
- 4. Manage quality and business processes

Analytics Business Partners

2. Horizontal Capabilities

- 1. Maturity analysis
- 2. Capabilities needed
 - . Investments & plans
- 4. Business case creation

Technique Layer

3. Capability: Data Science Execution

- 1. Explore, transform and generate data
- 2. Translate business knowledge into signals
- 3. Model, deploy, monitor, disseminate etc.
- 4. Provide insights to business

Data Science Manager

3. Building Capabilities

- In-house vs. partnership split
- 2. Resourcing & technical requirements

Technology Layer

4. Technology Enablers

- 1. Data Management
- 2. Analytics development & deployment
- 3. Dissemination self-service analytics & BI
- 4. Enterprise integration

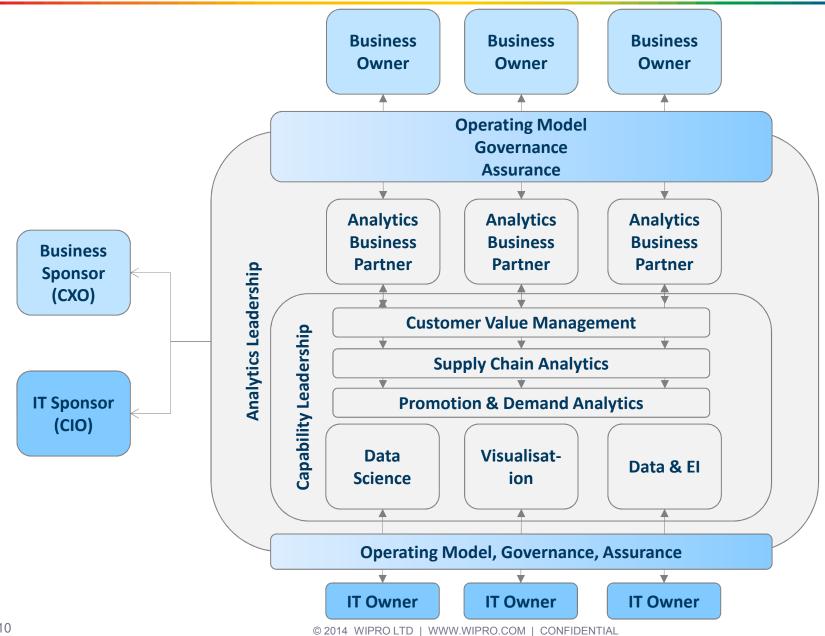
IT Sponsors

IT Owners

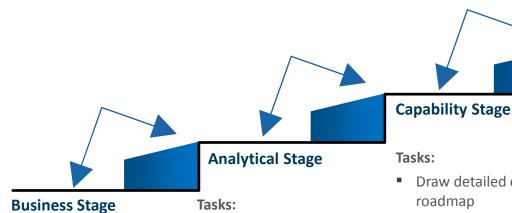
4. Platform Building

- 1. Architectural design
- 2. Technology selection
- 3. Technology implementation plans

Suggest Organisation Structure



Analytical Roadmap: A project Plan



Tasks:

- Understand business strategies and objectives
- Business process & maturity assessments
- Identify main priorities & pain points
- Shortlist areas of focus and estimated returns

Output

A shortlist of possible initiatives with clear boundaries and objectives

Owners

- **Analytical Business Partners**
- **Business Owners**

Tasks:

- Translate objectives into analytical requirements
- Create high level solution design
- Draw horizontal capability strategy
- Estimate investments & returns – Business cases
- Finalise shortlist

Output

- Final focused shortlist
- Horizontal capability selection
- **Business** cases

Owners

- **Analytical Business Partners**
- **Business Owners**

Tasks:

- Draw detailed execution roadmap
- Build skills & expertise strategy
- Determine technical & scientific tools
- Data readiness analysis

Output

- Technological requirements
- Skills strategy including service procurement
- Implementation roadmap
- Data science operating model

Owners

- **Analytical Business** Partners
- IT owners
- Data science manager

Technological Stage

Tasks:

- Conduct technology maturity assessment
- Carry out technology gap analysis
- Write technology requirements
- Agree vendor strategy
- Agree cloud Strategy
- Fix technology evolution roadmap

Output

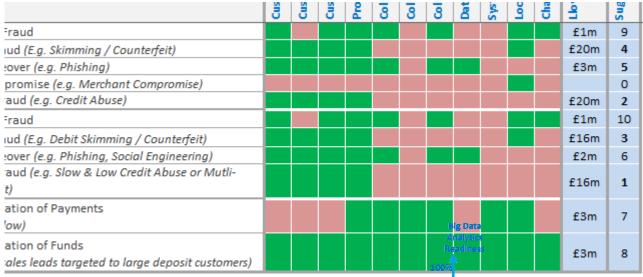
- Technology strategy & timelines
- Investment business case
 - Vendor recommendation

Owners

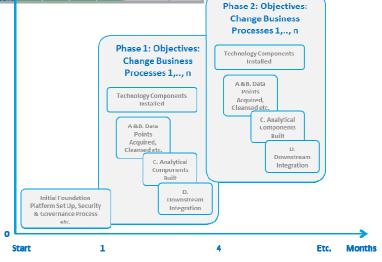
- IT Owners
- **Analytical Business Partners**
 - Data Science Manager

Final Outcome: A Comprehensive Plan

1. A roadmap for the analytical components based on business prioritisation and synergies



- 2. A multidimensional sequential project plan where each phase details new implementations of:
 - a. Platform and technologies
 - b. Data & governance
 - c. Skills & Capabilities
 - d. Business outcomes





Thank You

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