Public

We are keen to discuss our IS Strategy with any interested BSC Parties. If you would like to discuss please contact Chris Braley, chris.braley@elexon.co.uk, 07551124612

Introducing the Information Systems Strategy

Chris Rowell and Chris Braley

13 November 2014

ELEXON

Aim and content of the session

- ELEXON has produced an IS Strategy for taking forward the BSC Systems. This reflects:
  - the status of our aging systems
  - the changes that are projected for the market and the BSC
  - the capabilities of current technologies

- Fundamental to any transformation and central to any IS Strategy is the need to maintain operational integrity of settlement

- The aim of this session is to:
  - Share the current work with the Panel, highlighting where Panel input would be required
  - Discuss the Panel's thoughts on the IS Strategy

If the Panel have any questions in the meantime please contact Chris Braley, chris.braley@elexon.co.uk, 07551124612

IS Strategy process

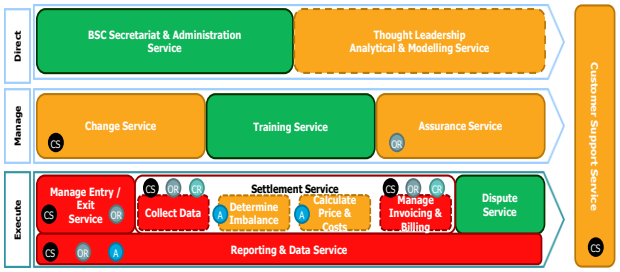
Current State

We discussed and agreed the Current state assessment.

IS Drivers

- Operational risk
- Value for money
- Flexibility
- Customer experience
- Market leadership

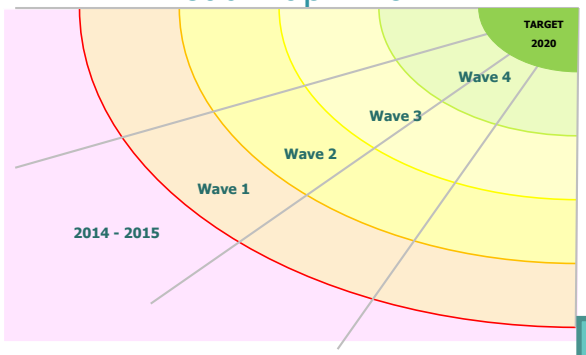
Current Service Issues



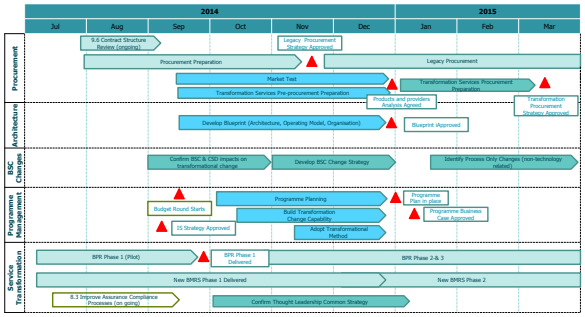
The Road Map

We reviewed the roadmap to achieve the transition to Target State and the next steps to refine the road map and prepare for transformation

Road Map v1.0



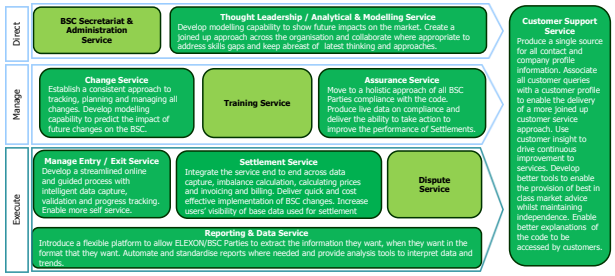
Next Stage Plan



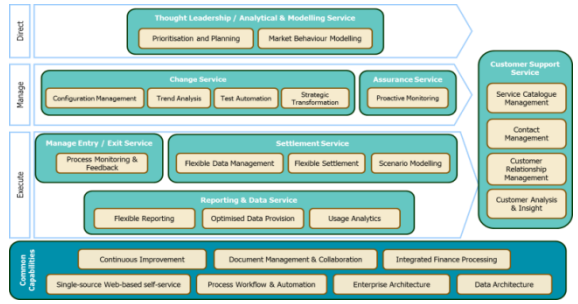
Target State

We discussed and agreed the Future State Vision for ELEXON's services and the capabilities required to support this.

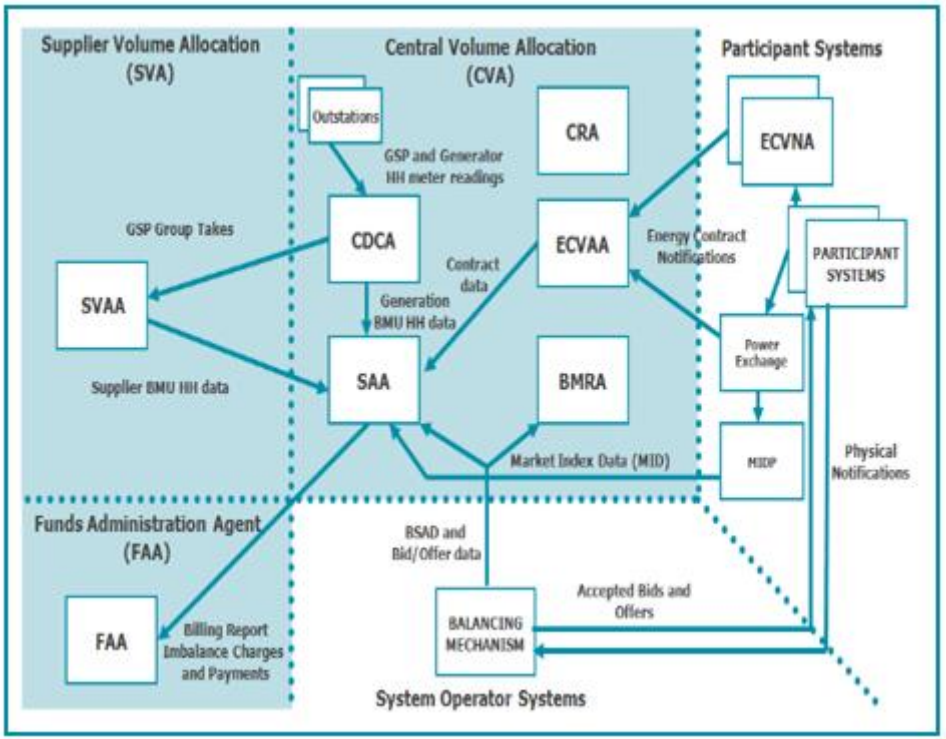
Future State Vision for Services



Capabilities to Support Future Services



Traditional BSC services / systems diagrams

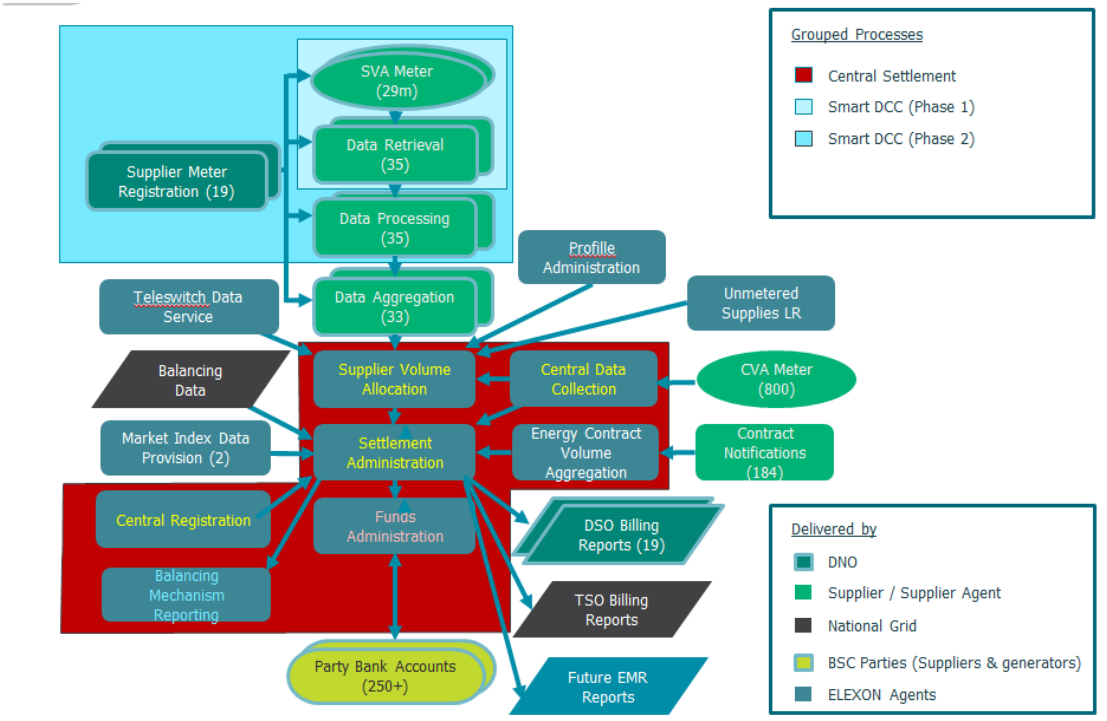


Our processes are more generic than our language suggests !
Keeping it bespoke drives costs upwards.

Existing BSC Parties & SPs

Nat Grid & Dist Bus

ELEXON Staff



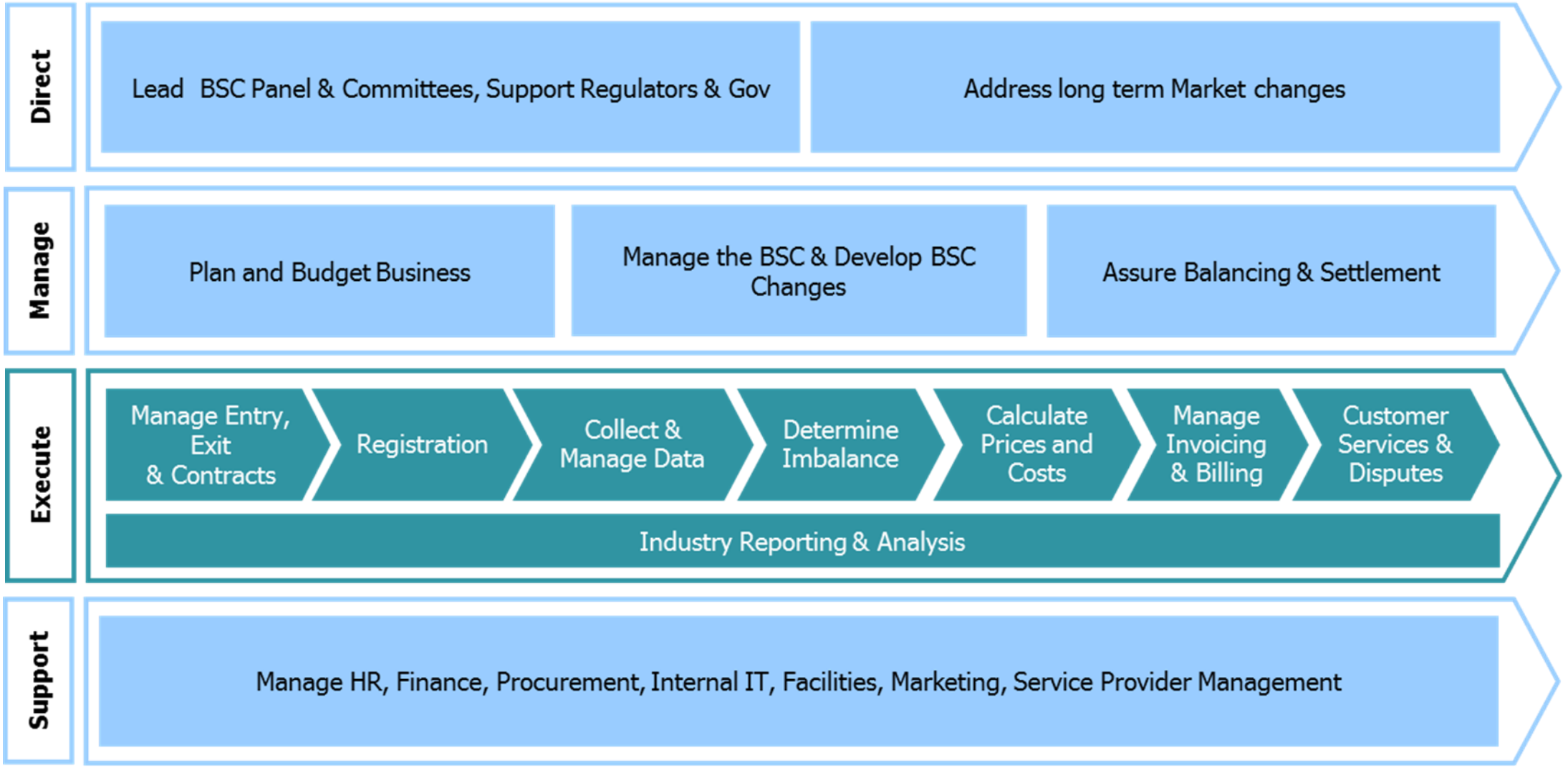
BSC Panel

Potential BSC Parties / Service Providers (SPs)

Ofgem & DECC

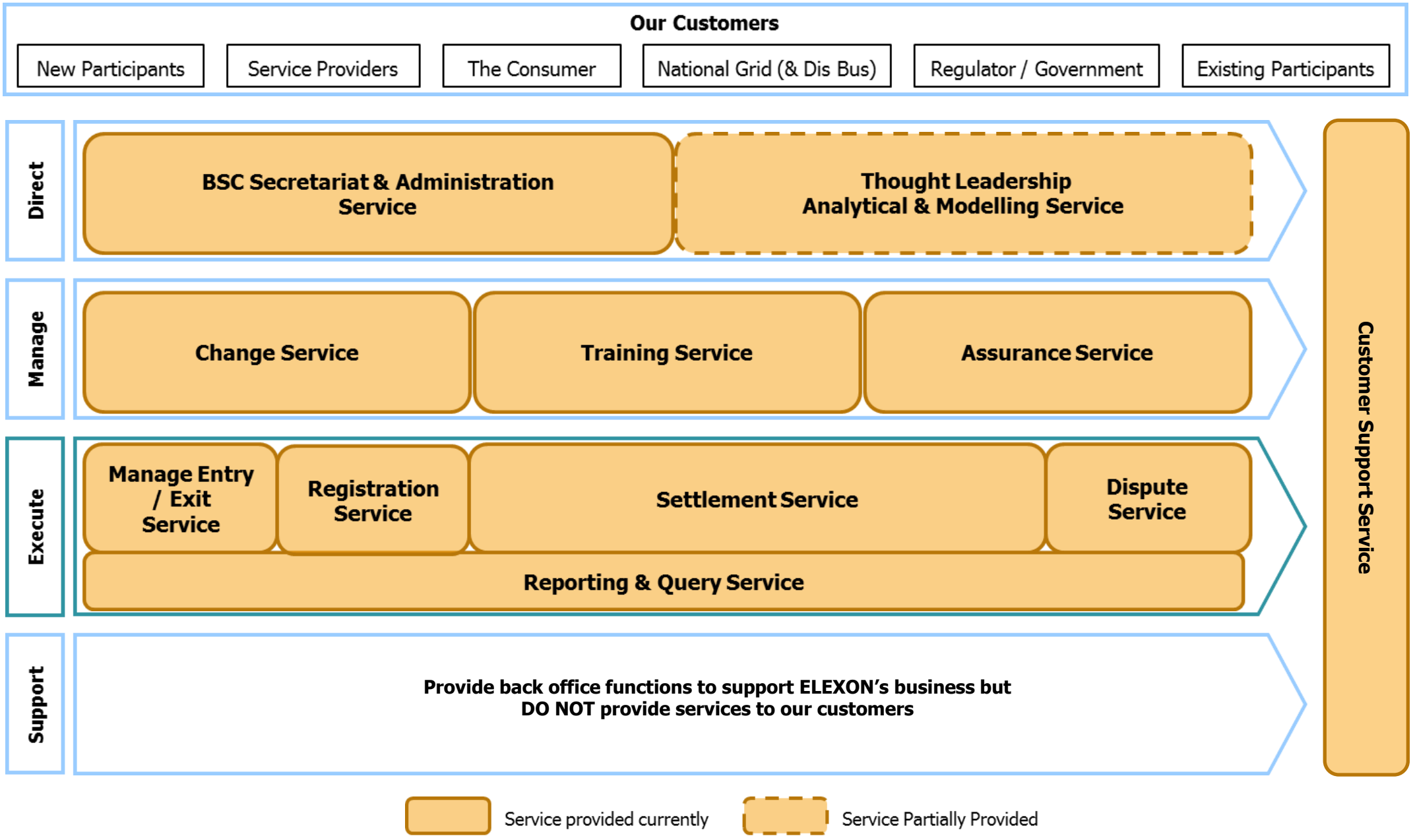
ELEXON's business – what we do

This is our simpler view of ELEXON's processes



ELEXON's Core Services

This is our view of what the customer sees



What is driving our IS Strategy?

This slide shows the key business drivers and target audience. In designing the future we need your input.

Threats & Opportunities

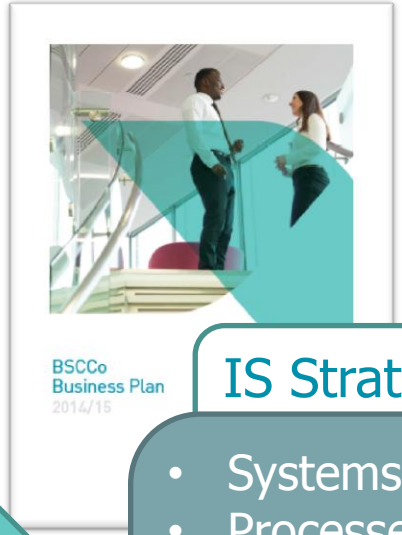
External

- User Needs
- Market Changes
- Technology

CHANGE

Internal

- Operational Efficiency
- Contract Expiry
- Aging Systems



IS Strategy

- Systems
- Processes
- People

To Be

As Is

BPO

BMRS

BPR

ELEXON
Staff – Exec - Board

Nat Grid &
Dist Bus

Ofgem &
DECC

Existing/ Potential
BSC
Parties

Service
Providers

BSC Panel

What are the IS drivers

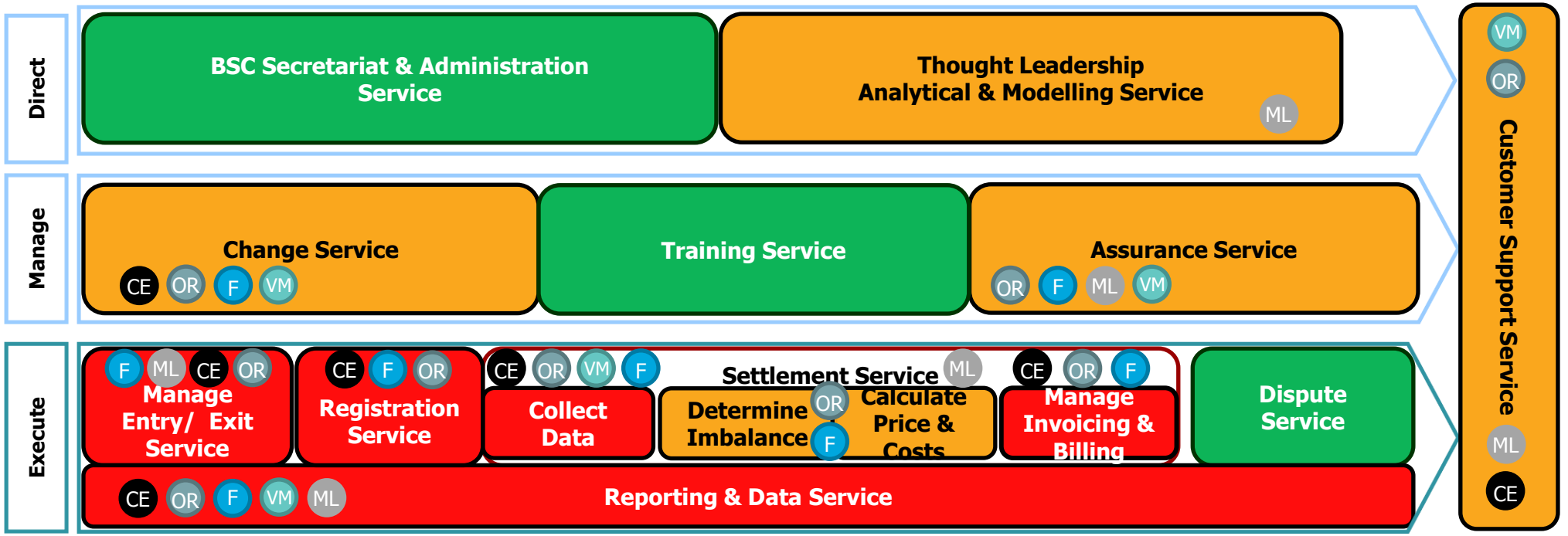
In considering how to take forward the IS estate we have consolidated the key drivers and considered how well the IS estate meets these today and why and how it should address these drivers in the future.

Operational Risk	Minimising risk of process failure and data quality issues
Customer Experience	Maximising accessibility to data and simplifying processes
Flexibility	Maximising speed and minimising cost of introducing new services and functionality
Value for money	Economy & Efficiency of operating the service
Market Leadership	Enabling us to explore new ideas

right combination
=
customer satisfaction

Issues in as-is estate driving change

We have captured the issues for each service and categorised them in terms of the IS drivers discussed on the previous page. Once the issues were grouped together we gave the service an overall RAG (red, amber, green) status based on the overall impact of these issues on the service in qualitative terms, and by the perceived opportunity for improvement. The diagram below summarizes this analysis.



Issues

- CE Customer Experience
- OR Operational Risk
- ML Market Leadership
- VM Value for Money
- F Flexibility

- IS Transformation work a priority
- IS Transformation work required
- No significant IS Impact

Target State Requirements by Service

To understand what the future might look like we detailed out the issues of each service at a high level and understood the capabilities and technology needed to address them. Below is an example of the Reporting and Data service. An overview of the target for all future services is provided in the next slide.

An overall description of the future service and how it will be different

A description for the Outlook for a service and the areas of focus for its improvement

EXAMPLE

Future Service

Introduce a flexible platform to allow ELEXON/BSC Parties to extract the information they want, when they want in the format that they want. Automate and standardise reports where needed and provide analysis tools to interpret data and trends.

Outlook

The BMRS and BPR Projects establish the technology but capabilities need to be developed to exploit the opportunity

A summary of the issues currently encountered in the operation of the service

High level requirements for a service in the future state

Main changes in capabilities and technical enablers required to implement the future state requirements

AS IS

1. Difficulties joining up data from multiple source systems
2. There are issues meeting customer demand
3. There is a lot of operational overhead in providing this information to customers
4. Systems are also inflexible so customer expectation is not met easily
5. Additional bespoke applications are created to meet the needs

TO BE

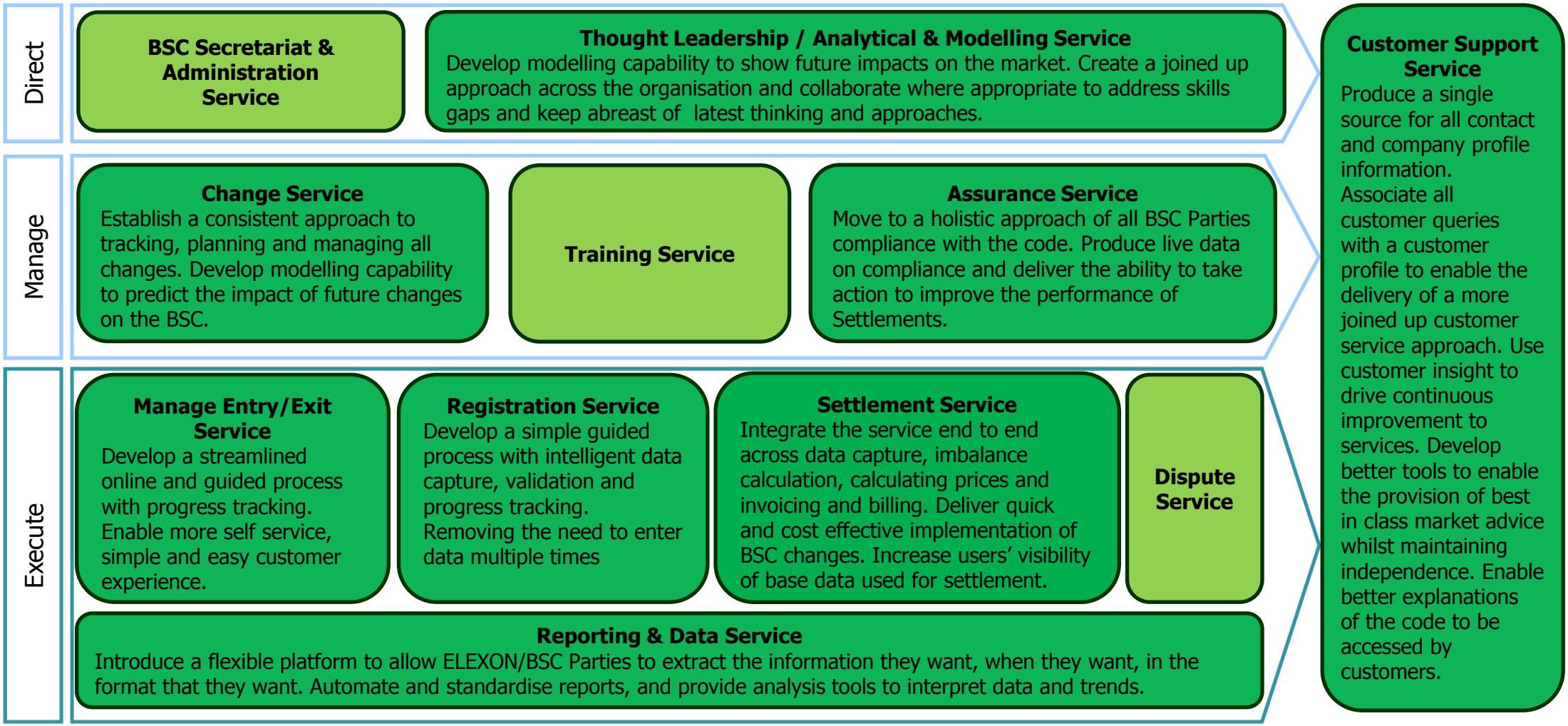
1. Simplified and improved access to data
2. More user choice, flexibility & historic data
3. Automated provision of standard / fixed data and reports
4. Flexible systems that are easier to change
5. Secured control of data access
6. Monitored usage of service

IMPLICATIONS

Capabilities
1. Repeatable processes needed to deal with common and ad-hoc customer data requests
2. Data architecture capability required to formalise and improve governance of data assets

Technology
1. Single web portal/application to support the process
2. Flexible forms based workflow
3. Structured and contextual knowledge tool
4. Online self service payments
5. Consistent approach to security

Target 2020 – Services



Target 2020 – An IS Enabled Business

These statements summarise the fully IS enabled business that we believe we should and can achieve by 2020. Delivery will be across the period.

ELEXON is a **customer focussed** organisation that is **flexible** to the evolving Electricity Market by delivering change **quickly** and **cost effectively**.

ELEXON delivers a set of services **tailored** to meet customer needs, **enable** market competition and **manage the risk** in the Settlement of Electricity as a **priority**.

ELEXON uses the latest technology where appropriate, **collaborate** with other organisations to study future impacts and **develop solutions** to industry wide problems

ELEXON's Mission

To deliver the BSC effectively, efficiently and economically, to the benefit of our customers.

ELEXON's Vision

To be a leader in the efficient transformation of energy markets - by providing shared solutions to address common industry problems

Roadmap definition approach

The following outlines the process used to define the roadmap. In particular a number of assessments were carried out (see 1-5 in the diagram below) to enable us to identify grouped activities. In addition a number of principles were also used in guiding the formulation of the roadmap. A selection of the inputs which are most relevant to the Panel are further explained on the following slides.

Future State

- Future Services
- Future Capabilities
- Technical Enablers

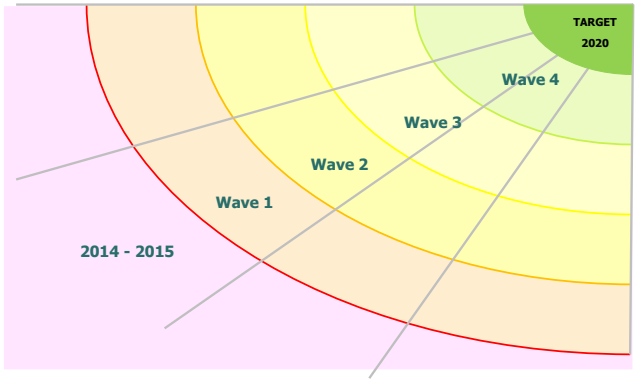
Inputs

1. Service Prioritisation
2. Impact of Regulation
3. Constraining Volume of Change
4. BSC Change Lead Times
5. Technical Dependencies

Roadmap Guiding Principles

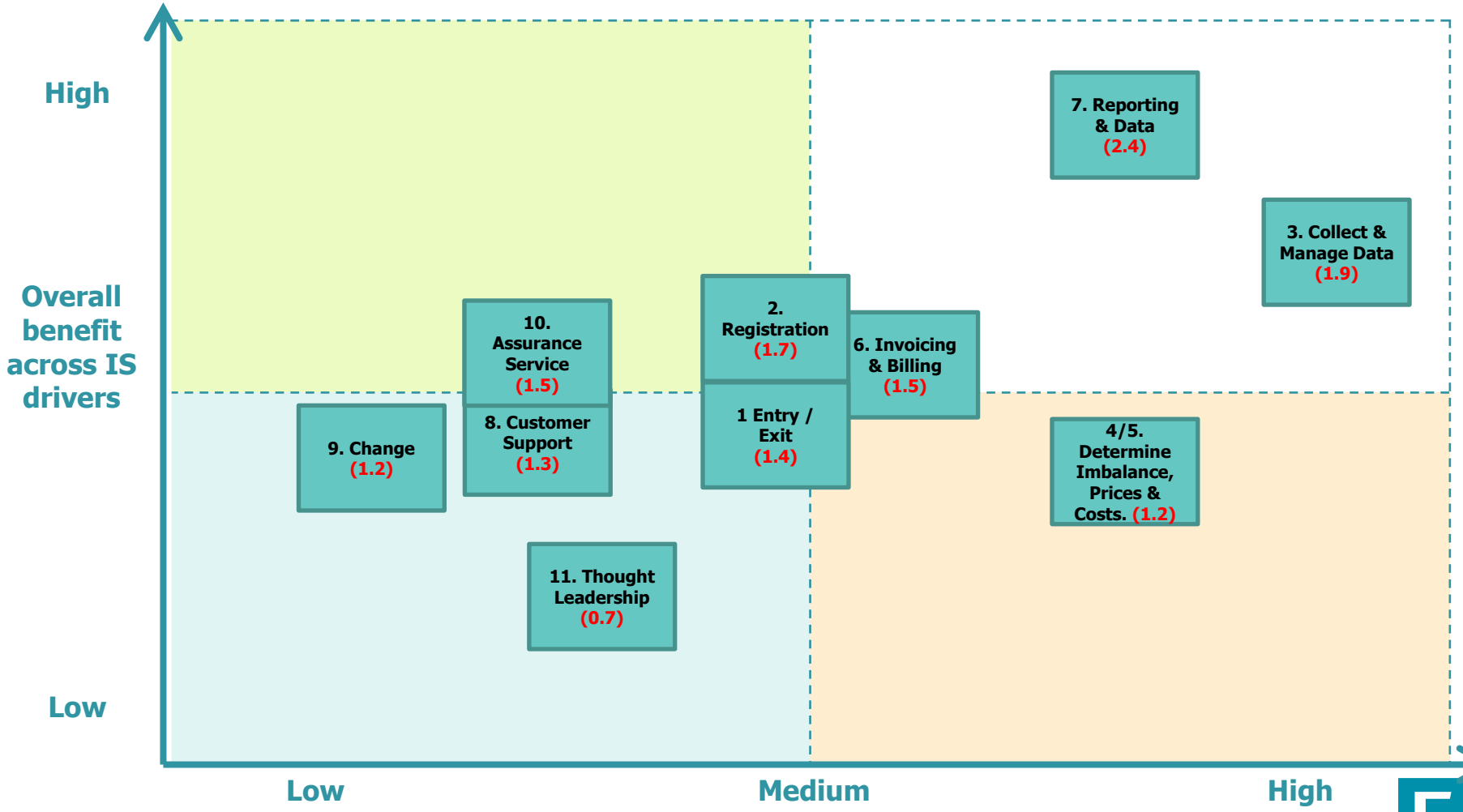
Gap Analysis, Planning & Prioritisation

Unconstrained Initial Road Map



Example: Input 1. Prioritise services by benefits

The roadmap was initially shaped by the priority of required improvements to the services. Each of the services to be transformed within the scope IS Strategy has been prioritised in terms of the overall benefits it delivers across all IS drivers (y axis) and in terms of the complexity of the delivering the change required (x axis). This analysis and been used to prioritise the delivery of the services providing the most benefit first. Note that both benefits and complexity have been assessed based on qualitative rather than quantitative inputs and feedback.



For further information on how service benefits and complexity has been derived please see Appendix A1 & A2.

Example: Input 2. The Impact of Industry Change

The anticipated impact of regulation has been assessed. The table below sets out the known upcoming regulatory changes and how they are expected to impact on ELEXON' services. The findings drawn are drawn from information currently available, however Regulation and its impact on the IS Roadmap should be reviewed on a periodic and ongoing basis. Note the 'low change' window afforded in 2016 – 2018.

	Regulation Project	Probability of Regulation Proceeding	Implementation Date
	SCR - PAR 250 (P304)	HIGH	Q4 2014
	Transparency of Information (P291 + P295)	HIGH	Q4 2014
	SCR– Single price + VOLL (P305)	HIGH	Q4 2015
	EMR - Contracts for Difference	HIGH	Q4 2015
1	SMIP - Metering Roll Out	HIGH	Q4 2015
	Change of Supplier - Smart (P302)	HIGH	Q1 2016
	Scottish Independence (separate market)	MEDIUM	Q2 2016
	Mandating HH settlement non domestic (P272)	HIGH	Q2 2016
	Capacity Allocation and Congestion Management	HIGH	Q1 2016
	European Balancing Network Codes	HIGH	Q1 2016
	PSR - Dynamic Switching of SMART Meters	HIGH	Q2 2018
2	COS - next day switching	HIGH	Q2 2018
	SMIP - DCC Central Registration	HIGH	Q2 2018
	EMR - Capacity Market	HIGH	Q1 2018
	PSR - Reducing Settlement Timescales	HIGH	Q2 2017, 2020
3	Electricity Settlement Reform	HIGH	Q2 2020
	FTA - ALL 1st Conclusions	LOW	Q4 2020
	SMIP - Central Data Collection + Data Aggreg	MEDIUM	Q1 2020
	Demand Side Response (NEW MARKET)	HIGH	Q1 2025

Implementation date is not yet confirmed; date shown is best estimate.

High impact on the service

Medium impact on the service

Low impact on the service

Summary of key findings

1. Regulatory changes in 2014 - 2016 will be delivered from our existing IS estate, unless we have invested in service transformation (i.e. BMRS and BPR).
2. Regulatory changes in 2016 – 2018 are driven by smart enabled changes and reducing settlement timescales. The focus is on the services of Registration, Collect Data and Assurance. These are key enablers in reducing settlement timescales. Central registration, data collection and data aggregation plus dynamic switching of smart meters are also likely. There is also a noticeable 'low change' window around the key settlement services of imbalance calculations & pricing, billing, and reporting.
3. All remaining services need to be transformed for the wider reforms targeted for 2020.

Example: Input 4. Changes required to BSC

The broad over all lead times for modifications to the code has been considered. The detail of this is explained below, note that further analysis will be needed to understand the nature of the code changes required.

Service	BSC Change Required? (9 -12 months)	Code Subsidiary Documents (CSD's) - (6 – 9 months)	Comments
Entry / Exit	Yes	May be	Due to streamlining of processes
Registration	Yes	Yes – Must	There is the potential for a change in sourcing of the operation of this service, changing this would require a change to the BSC. A CSD is potentially required for streamlining of the process
Collect & Manage Data	Yes	Yes – Must	Change to BSC likely due to change in process
Imbalance, prices & costs	No	Yes - Probable	Panel approval for new system required. Highly likely that changes to Service Descriptions are required and possible BSCPs
Invoicing & Billing	Yes	Yes – Must	There is the potential for a change in sourcing of the operation of this service, changing this would require a change to the BSC. A CSD is potentially required for streamlining of the process
Reporting & Data	Probable	Yes – Must	Change to the BSC is probable in order to remove prescriptions with the current service. CSD changes would support further streamlining
Customer Support	No	May be	
Change	Probable	May be	Changes to Section F of BSC are likely. Change to BSCP40 (change management) is also slikely
Assurance	Probable	Yes – must	Probably yes for some areas like compliance and in particular for the taking action process, no for others
Thought Leadership	No	No	

Initial ELEXON BSC Road Map - Guide

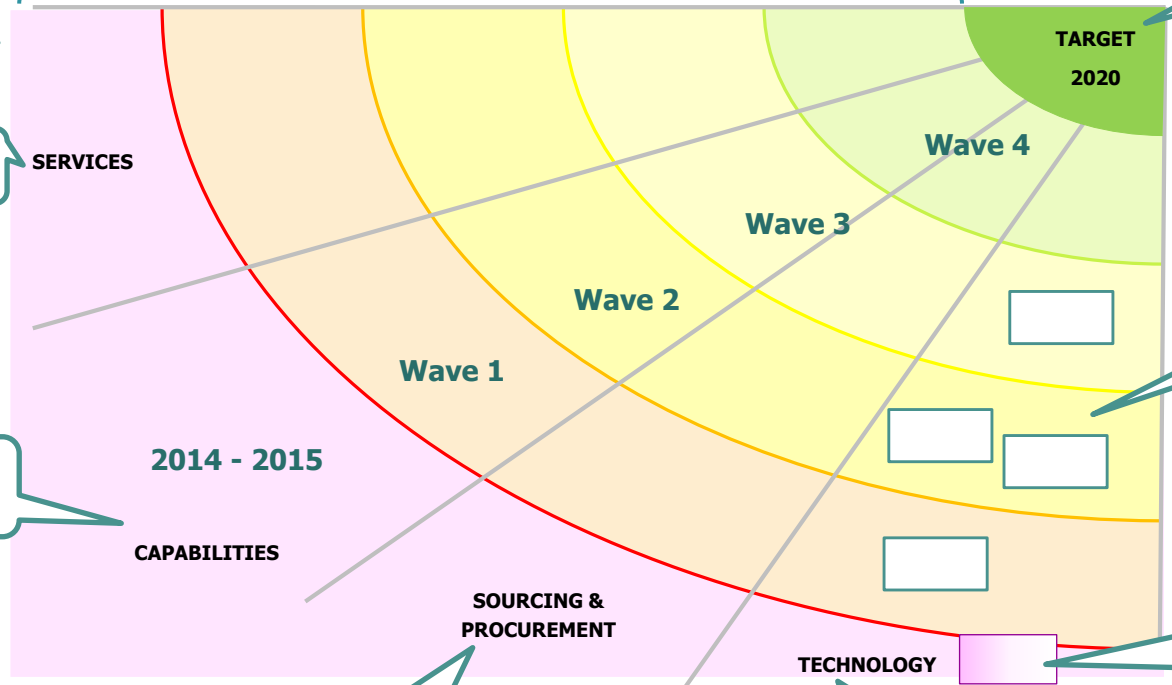
The initial roadmap has been illustrated overleaf sets out the key outcomes to be achieved on a timeline toward the target state in 2020. Below we have explained how the road map is structured to aid with its understanding.

The roadmap is organised into 4 themes that describe the different types of outcomes that will be achieved

Organised into 5 waves that each deliver a significant change and transition in state to ELEXON's operating model

The target state encompassing what ELEXON wants to achieve by 2020

Describes how services will be transformed throughout the roadmap



The outcomes we expect to achieve are called out individually

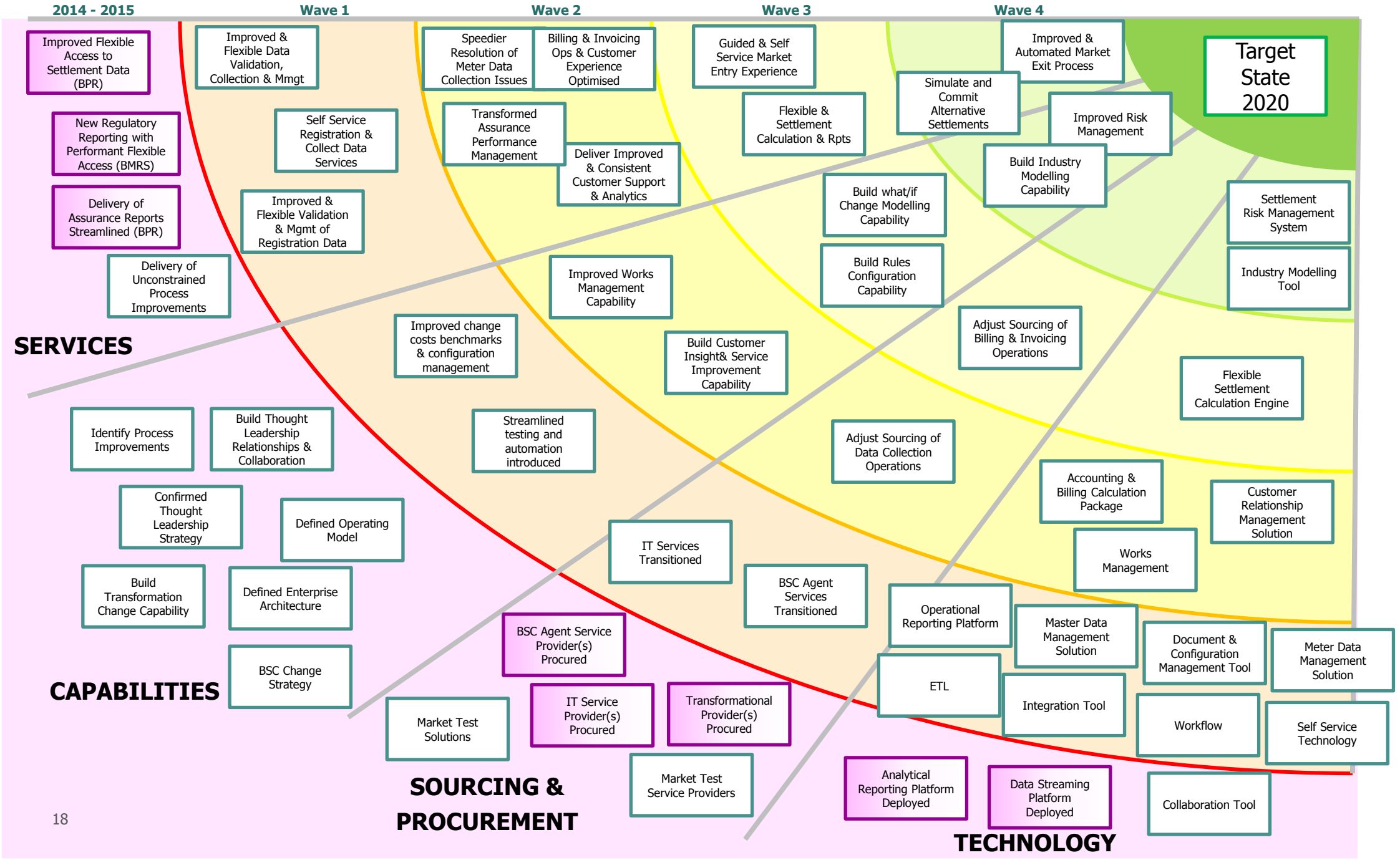
Describes how capabilities will be enhanced or built throughout the roadmap

Work has already started on delivering some outcomes in the 2014-15 wave. These are shaded in pink.

Describes services that will be procured and how adapting the sourcing of ELEXON's operations will be addressed

Sets out the enabling technologies that will be deployed to support transformation of services and capabilities

Initial ELEXON BSC Roadmap v1.0



Next steps

- Discuss views on IS Strategy and case for change with Panel members (ELEXON & Panel Members Nov - Dec 2014)
- Analyse options and develop business case (ELEXON Dec 2014 – Jan 2015)
- Present case for change to the ELEXON Board and Panel (Board and Panel meetings early 2015)
- Proceed with Procurement of new service provider(s) (ELEXON & Panel early 2015)