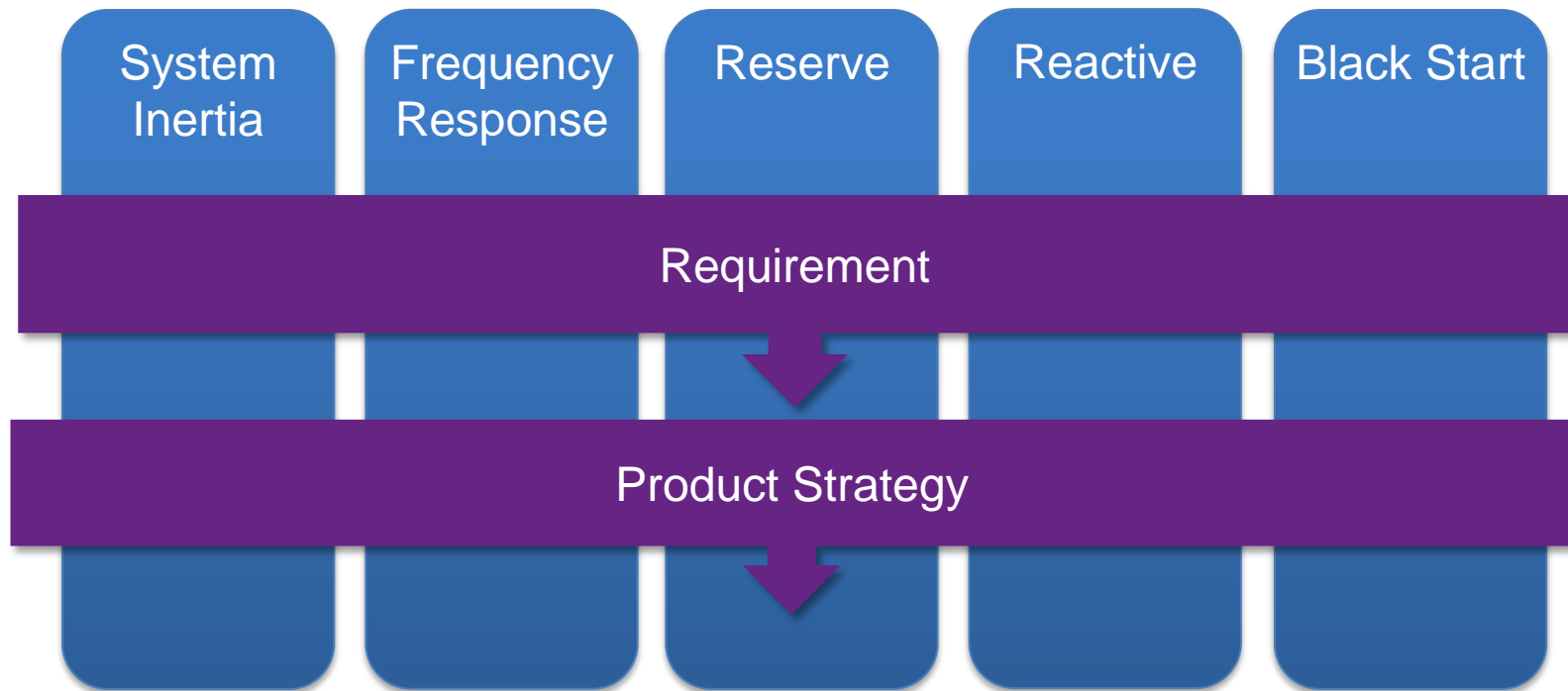


# System needs and product strategy

**Andrew Ford**  
Operability Strategy Manager

# System needs and product strategy

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## Frequency response

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- Frequency response needs are increasing, with greater volumes of faster-acting response required
- Market structures will be developed to value different response characteristics as part of our product simplification work
- Sub-second response will be included in the market in the winter (in line with our product strategy)
- Longer term, we will trial new procurement approaches

# System inertia

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- Lack of system inertia is an issue for rate of change of frequency reasons
- A programme to change relay setting for distributed generation will mitigate some of the need
- Our publication will provide clarity of plans for inertia (e.g. how the SO will value inertia going forward)

## Reactive power

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- Need is increasing substantially as a result of changing generation mix
- Existing commercial markets do not provide clear signals and do not offer route to market to Non BM parties
- Markets should be designed to give greater transparency of requirements, regional sensitivities and routes to market
- Power Potential is a project to trial accessing the reactive capability from distribution-connected assets

# Reserve

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- Positive and negative reserve requirements generally stable, although volatility increases
- Market structures will be developed as part of product simplification work to value different reserve characteristics
- New pan-European reserve services will need to be included in any development of our existing reserve services

## Black Start

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- Number of current providers reducing
- We will create a revised restoration approach that does not solely rely on large transmission-connected assets
- More market-based approaches to service procurement will be investigated

# Simplification of Products



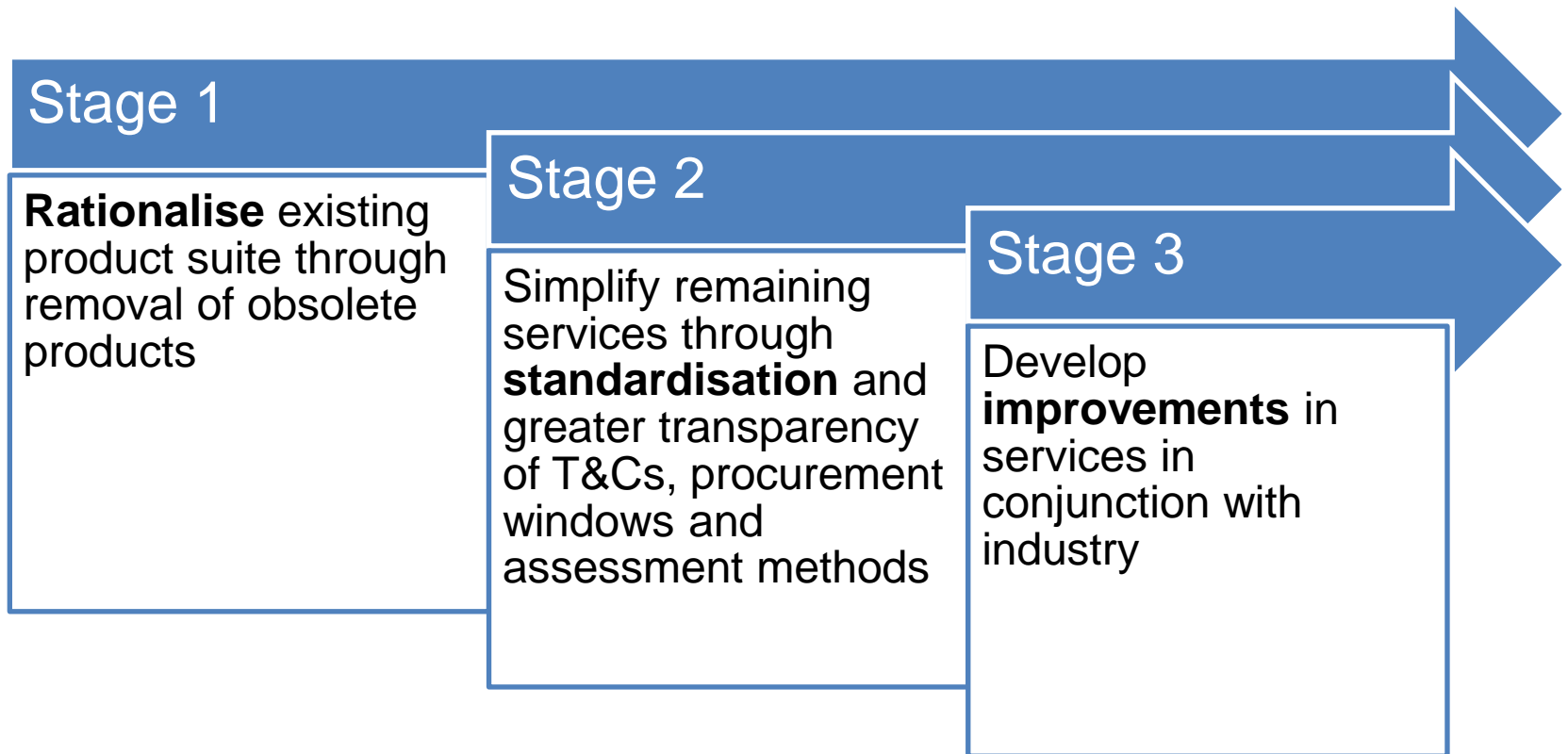
## Market issues – feedback received

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- Too many markets with different technical requirements
- Not been transparent to the market about our criteria for assessment
- Some markets are over- and some undersubscribed, despite having overlapping delivery
- Not being transparent about our requirements (both implicit and explicit) and how they interact with each other

# Simplification of products – proposed stages

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# Rationalisation

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- Too many products – some not used at all
- Removal of obsolete products
- Grandfather existing contracts
- Offer moving to more market-based alternatives where possible

# Standardisation

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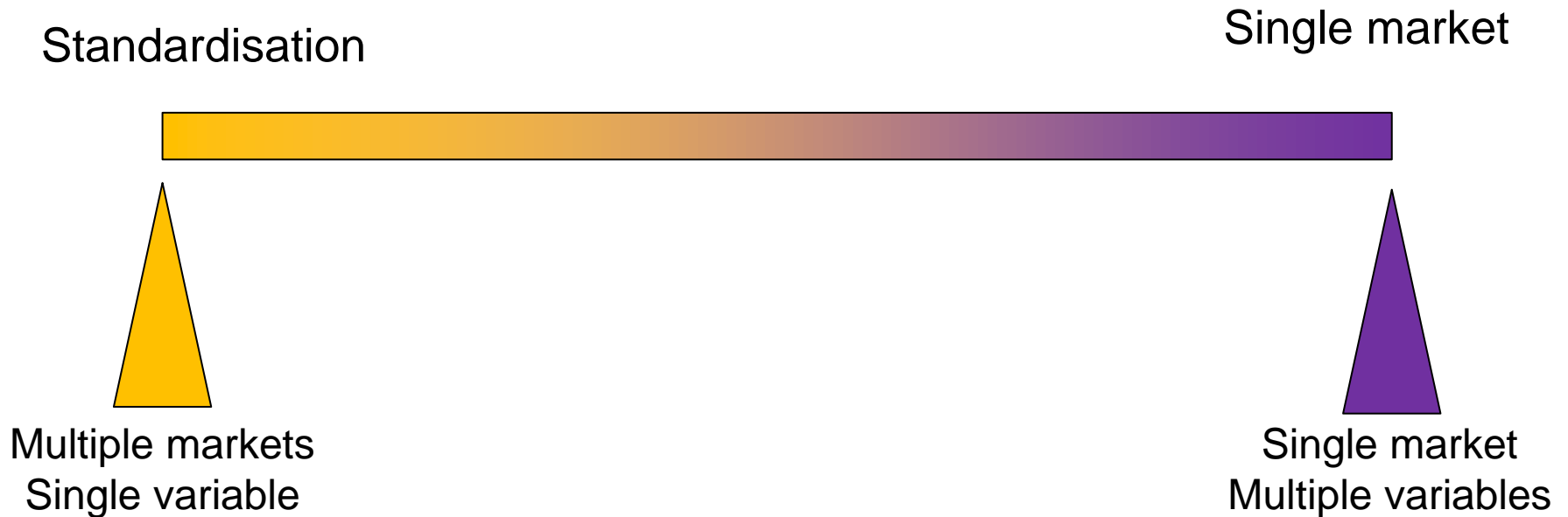
- The value of variable parameters in the assessment of existing markets are not always apparent to industry (FFR, FR, STOR)
- More definition will enhance transparency of market signals:
  - Diurnal availability windows, e.g. 24-hour, 24 Hour Triad Avoidance, Overnight, Evening Peak
  - Contract terms, e.g. 1 month, 6 months, 1 year, 2 years
  - Speed of delivery of reserve energy, e.g. 2 minutes, 5 minutes, 10 minutes, 20 minutes

**This standardisation phase should help to reduce complexity; industry is aligned on the need to reduce complexity within the products**

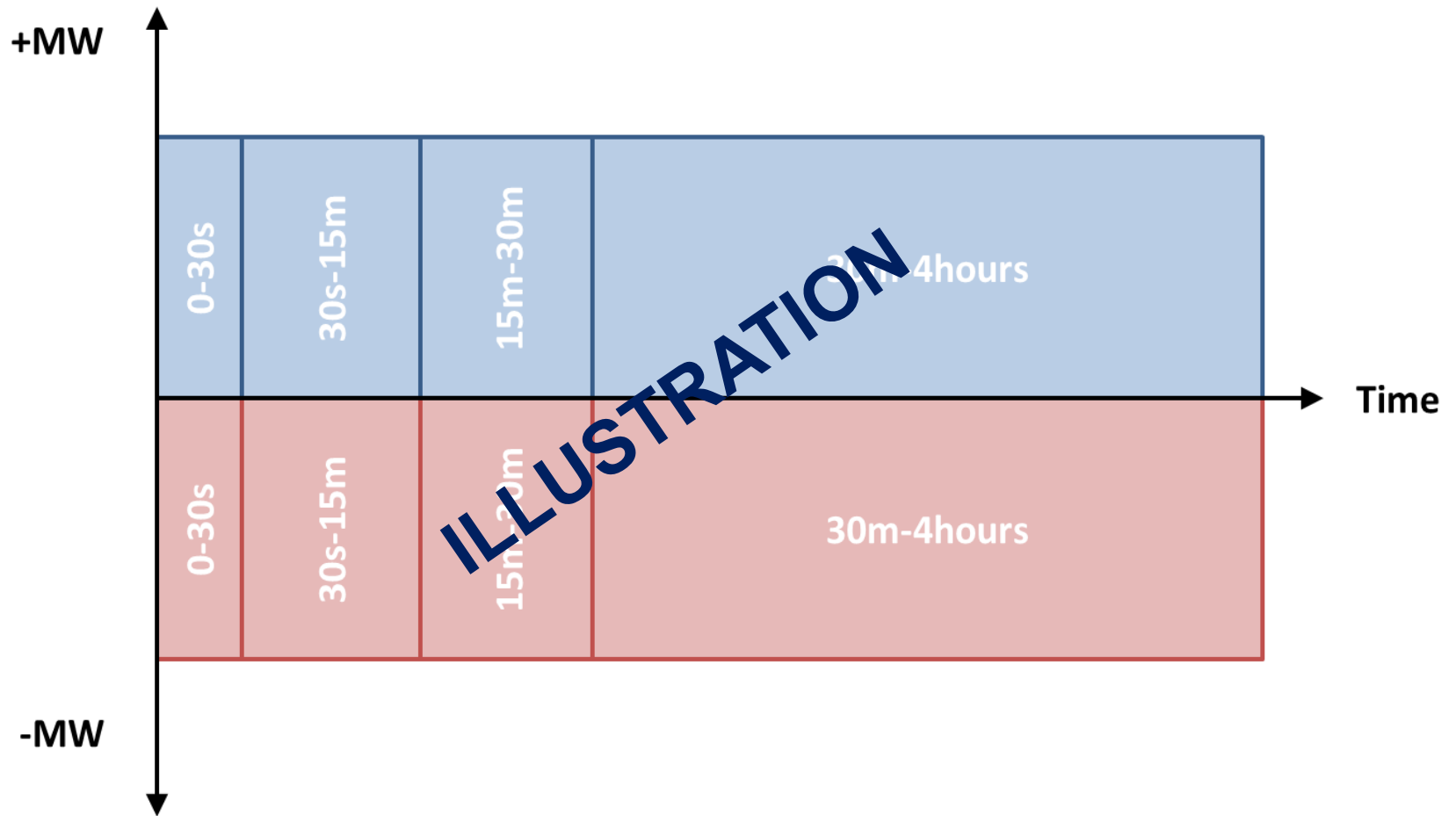
# Improvement – Standardisation versus single market

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- Where should balancing services sit on this spectrum?



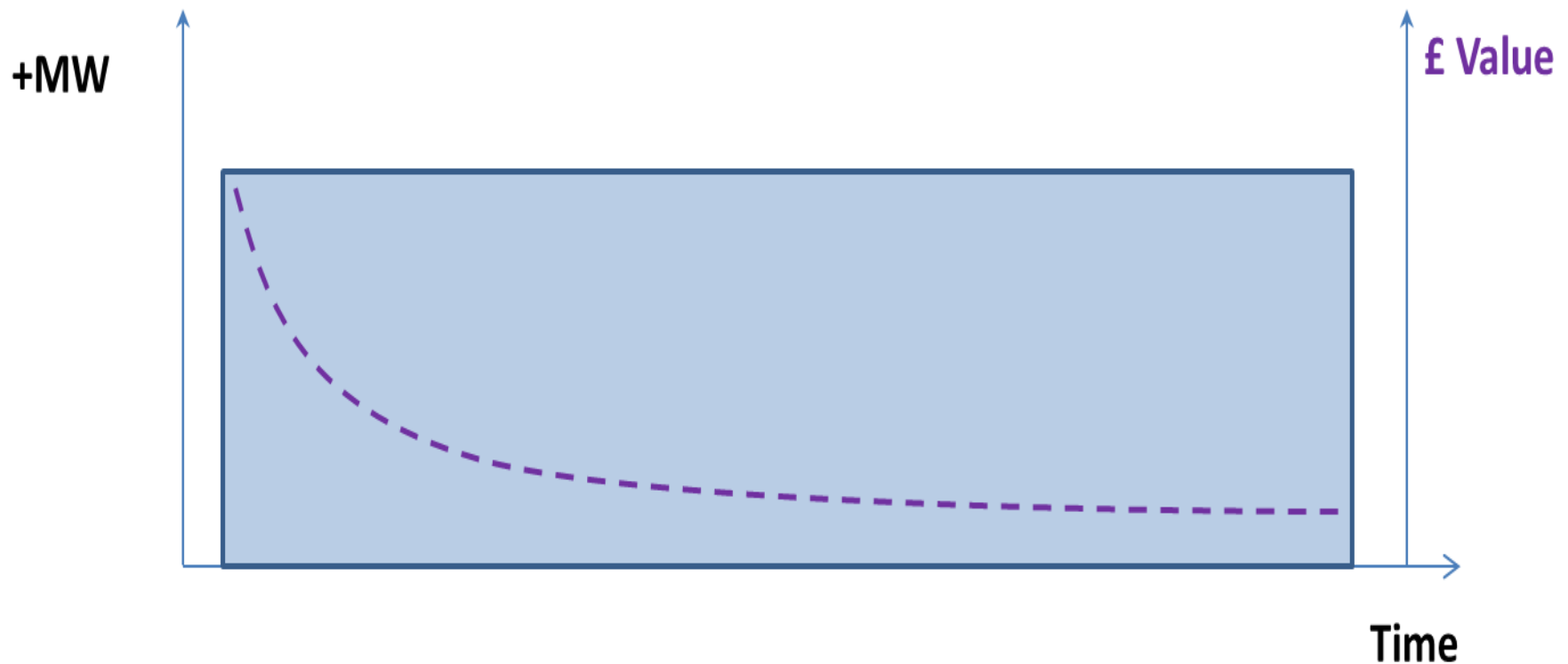
# Improvement - standardisation



# Improvement – single market

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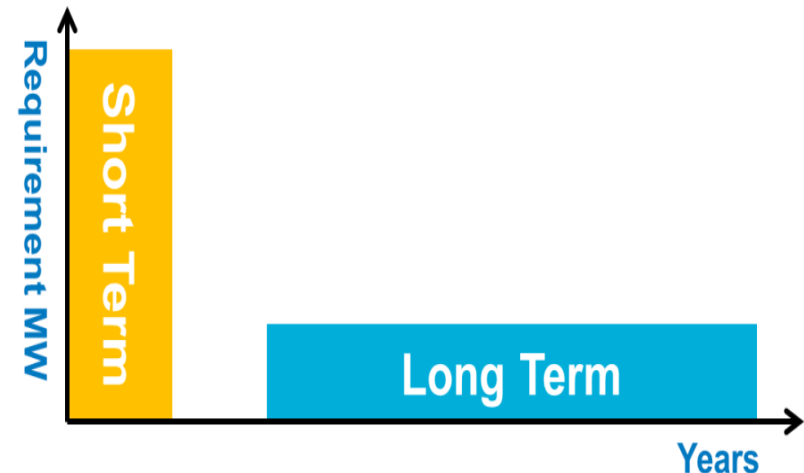
- E.g. one single Response market.
- Potentially more variables, although this could increase complexity
- Value function would be made available to industry. This option sits comfortably alongside pay as clear mechanisms



# Improvement – longer term versus shorter term contracts

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- Where should the SO's products sit on this spectrum?
- Industry feedback split between longer term and short term markets
- We could have a mix of both, particularly in the transition period as we build market confidence
- Should longer term contracts apply to both new and existing assets?





# Future vision for balancing services

# Future vision for balancing services

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- New Procurement Options
  - Closer to real time markets (in line with EU aspirations)
  - We hope to trial different approaches in 2018
- Wider Markets
  - Investigate access to the Balancing Mechanism for non-BM parties
  - Create transparent market structures that are future-proofed and technology neutral

# Timetable of work

# Timetable of potential developments - products

Apr/May	<b>System Needs and Product Strategy document &amp; consultation</b> Consultation period Engage with industry through forums and webinars Review product suite Identify market parameters
May/Jun	Review responses and continued engagement on future product strategy Remove obsolete products Value function analysis and thinking on assessment processes Engage on standardisation of existing products
Jun	Potential outline Change Proposals in relation to standardisation of existing products
Jul/Aug	Start implementation of changes to existing markets Publish product strategy recommendations based on feedback received and analysis
Q3 and Q4 17	Develop response and reactive power markets Procurement trials

