

# **MARKS AND SPENCER'S DEMAND RESPONSE PROJECT: LESSONS AND OPPORTUNITIES**

---

Dr Maria Spyrou

M&S

EST. 1884



# OVERVIEW

- Who are M&S
- Plan A and our sustainability journey
- What is Demand Response for M&S
- M&S's Demand Response Journey
- Take-away points

# WHO ARE M&S?



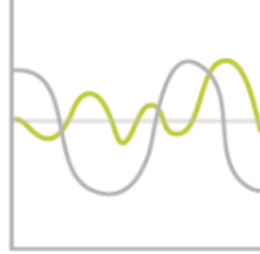
**£10.6bn**

Group revenue



**£613.8m**

Group Profit Before Tax  
and Adjusted Items



**£176.4m**

Group Profit Before Tax



**60/40%**

UK turnover is split 60%  
Food and 40% Clothing &  
Home



**454**

International stores



**55**

International territories



**£3.8bn**

Clothing & Home revenue



**£5.6bn**

Food revenue



**£1.2bn**

International revenue



**979**

UK stores



**84,939**

Average number of  
employees

## M&S Property

---

# OUR PLAN A JOURNEY



**M&S Property**

---



---

# WHAT DOES DSR MEAN TO M&S?

- Demand side response (DSR), is managing M&S' ability to change how we consume or produce electricity at key times.
- We are rewarded for our contributions to making the entire energy system more efficient, and support National Grid to integrate increasing amounts of intermittent renewable generation.
- This can improve the resilience of our business with increased asset availability and reliability in the event of a power cut.

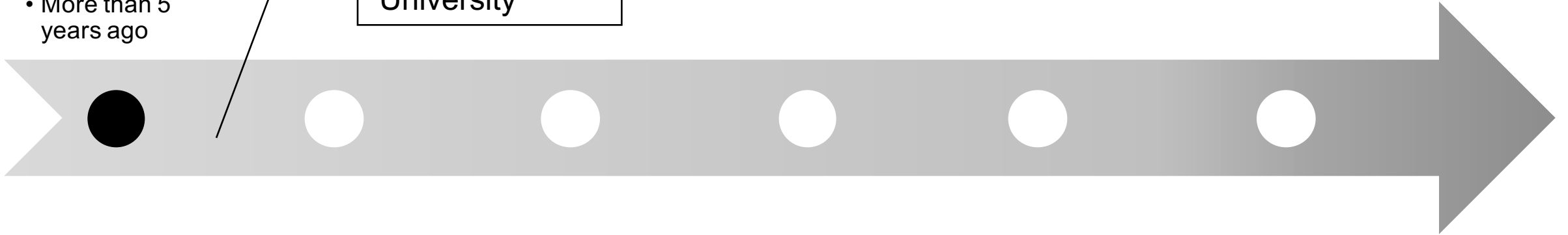
---

# OUR JOURNEY SO FAR

HVAC asset  
Management

- More than 5  
years ago

Engineering  
Doctorate  
Researcher at  
Reading  
University

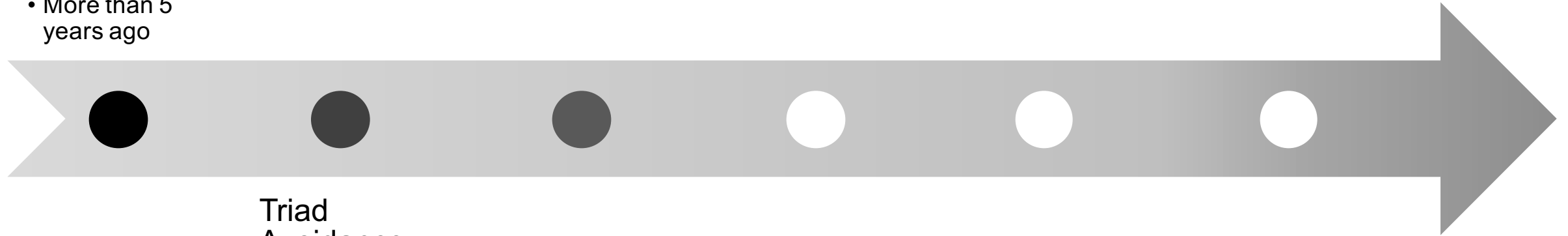


---

# OUR JOURNEY SO FAR

HVAC asset  
Management

- More than 5  
years ago



Triad  
Avoidance  
trial

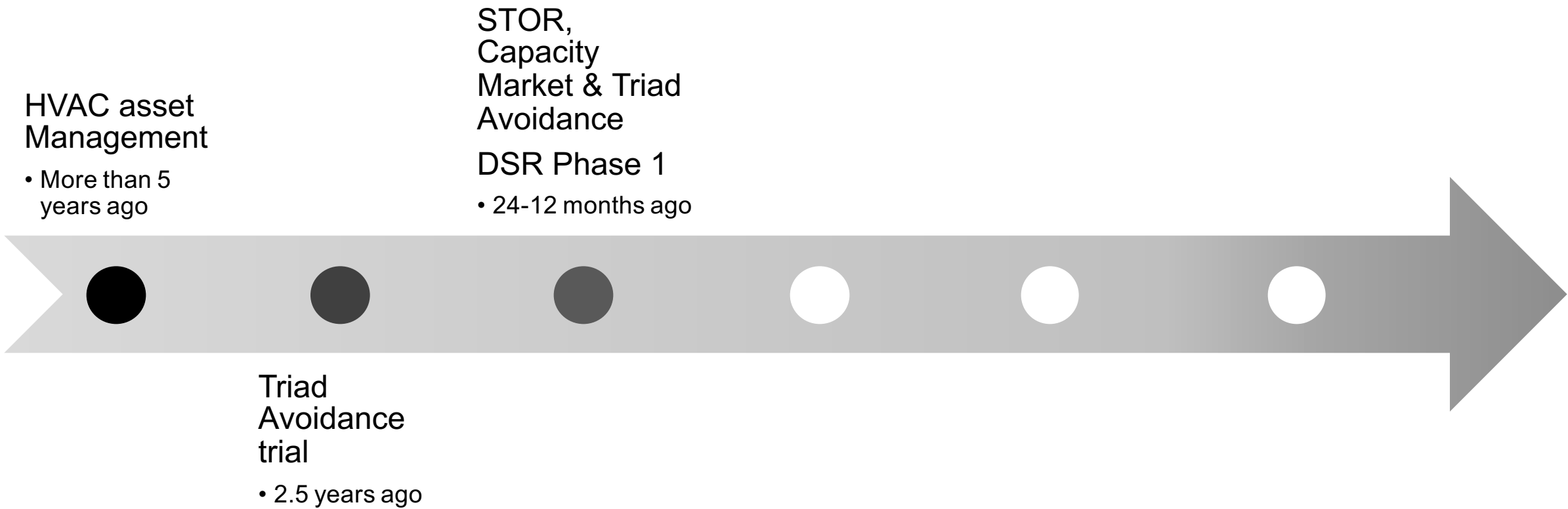
- 2.5 years ago

M&S **Property**

---

---

# OUR JOURNEY SO FAR





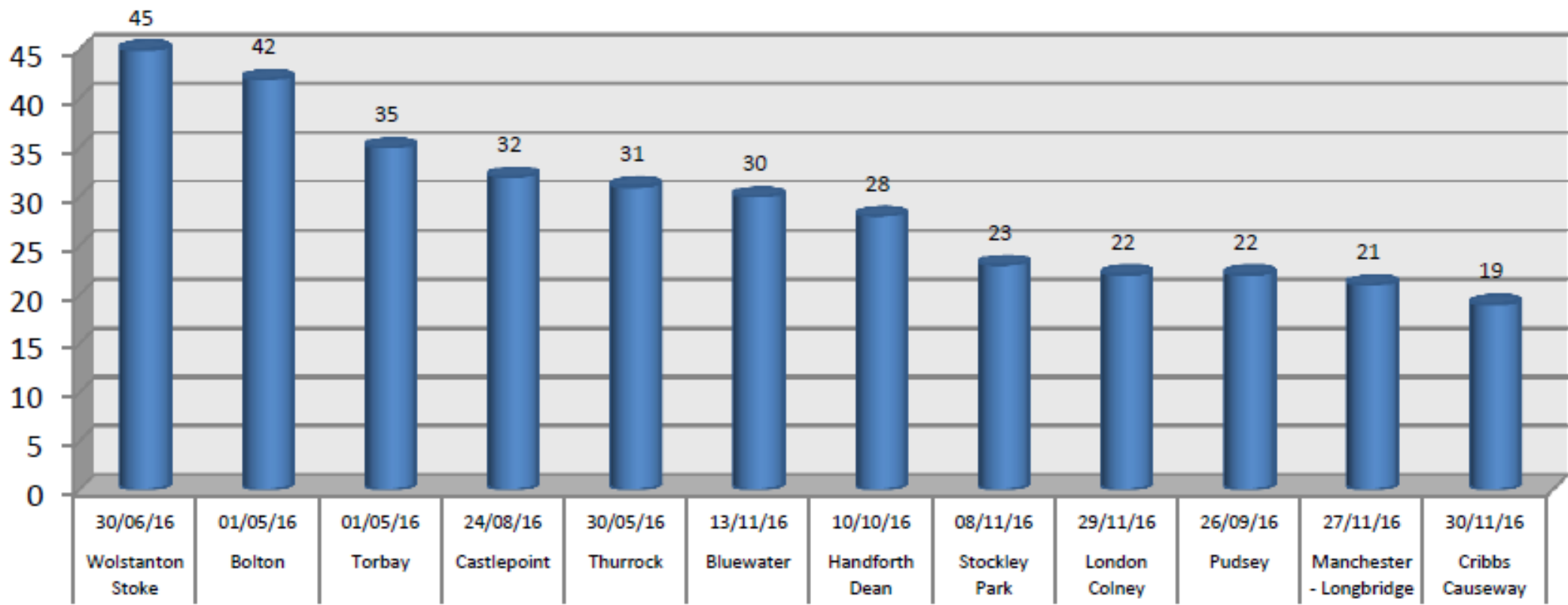
---

# DSR PHASE 1

- Upgraded/serviced generators and switchgear in 13 sites so they can work in parallel with the mains. (7Mw)
  - Allowed for remote activation of these sites
  - Enhanced response of the generator in the event of a mains failure
  - Enabled no-break return when the mains return
- 
- HVAC assets in 25 stores enabled for remote Demand Reduction

# DSR PHASE 1

No of Generator Activations



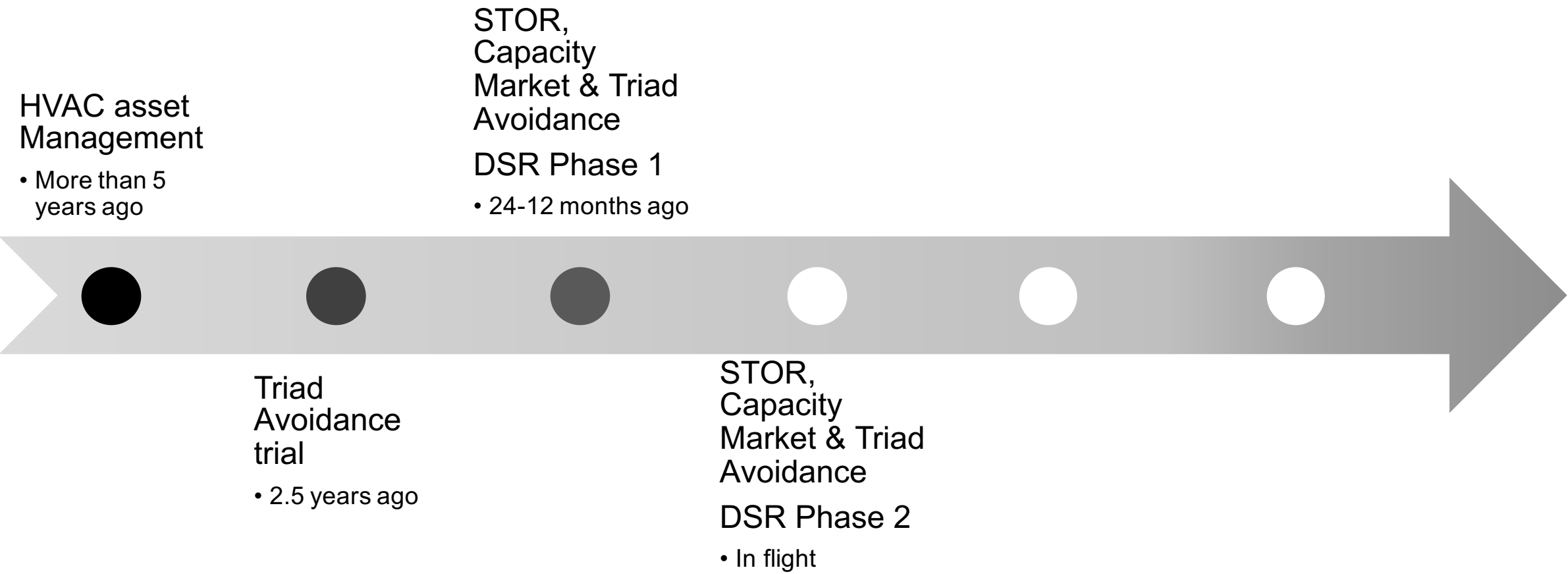
---

# DSR - LEARNINGS

- Some of these generators were installed 20-30 years ago
- Assets that were not serviced/maintained for years.
- Check that they comply with current regulations
  - Noise restrictions
  - Fumes / exhaust pipes
  - Ventilation of generator rooms
- Export license applications
  - They can take some time, not all DNOs are used to them

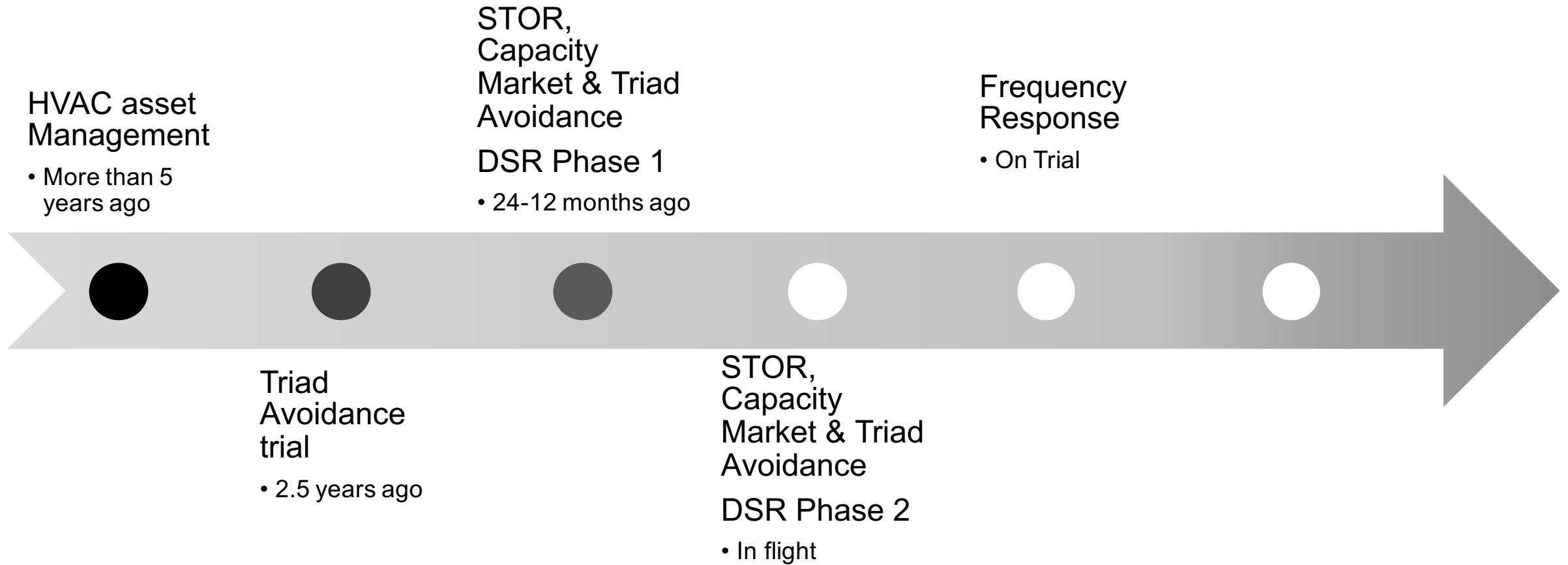
---

# OUR JOURNEY SO FAR



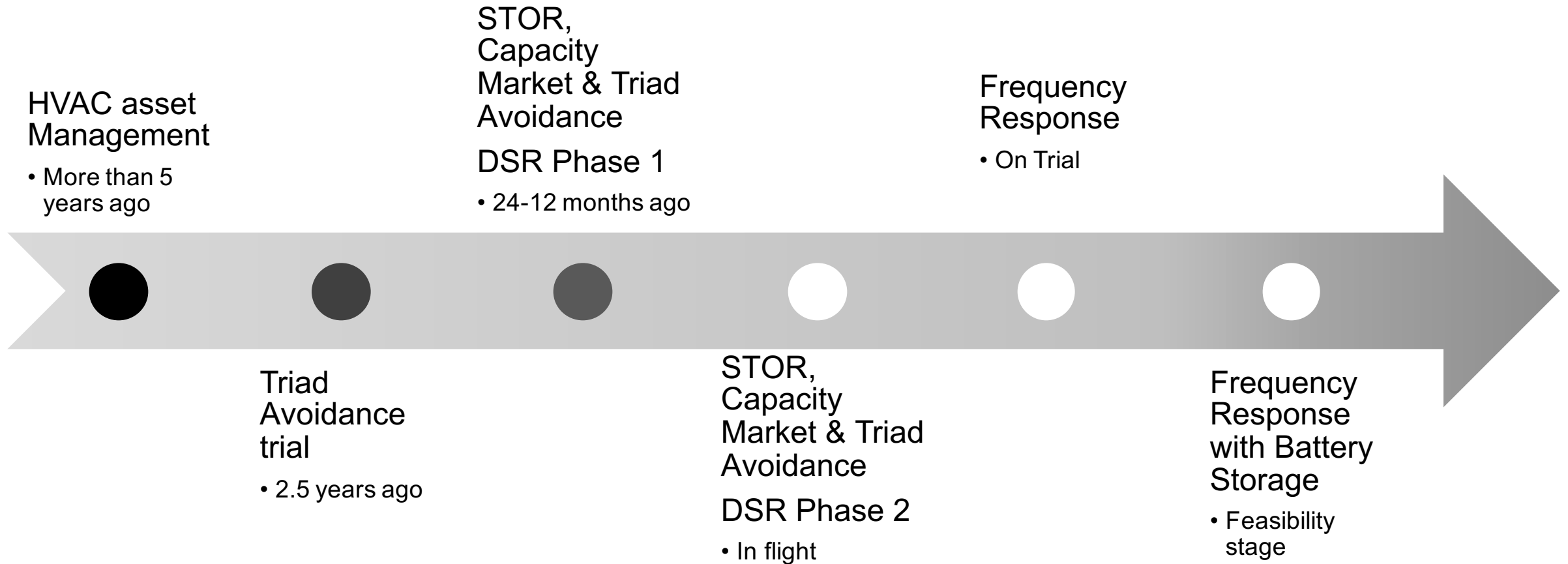
---

# OUR JOURNEY SO FAR



---

# OUR JOURNEY SO FAR



---

# TAKE AWAY POINTS

- DSR is a way to support national grid cope with the uptake of renewables, it can be profitable through cost avoidance and revenue generation
- Start from the start – understand the different models available and which ones would be more beneficial to you
- You are basically incentivised to upgrade your infrastructure
- Think about connectivity- how will you communicate with the assets?
- Find reliable suppliers to work with
- Trial & Experiment ➤ Innovate, or at least fail happy! 😊





# CONTACT DETAILS

---

**Maria Spyrou**

Energy Efficiency Manager

[Maria.Spyrou@marks-and-spencer.com](mailto:Maria.Spyrou@marks-and-spencer.com)

 [@DrSpyrou](https://twitter.com/DrSpyrou)

---