



# Driving the Electric Revolution

Product Development in Motion presentation

June 13<sup>th</sup> 2019

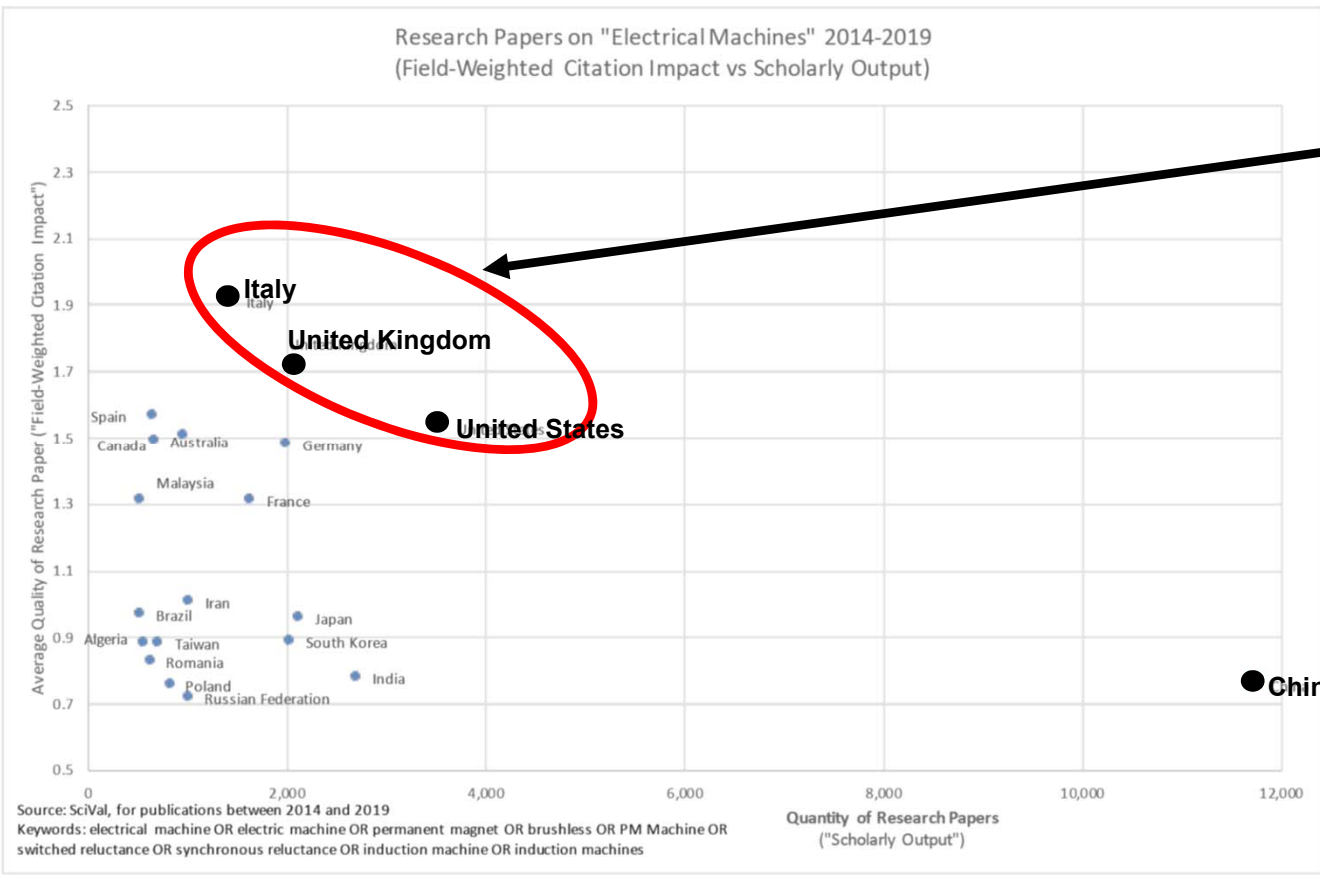
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*‘Driving the Electric Revolution will be the catalyst to building **£5bn more Power Electronics, Motors and Drives (PEMD) products in the UK by 2025**, encouraging industry across 7 sectors to invest and collaborate with academia to establish a PEMD supply Chain.’*



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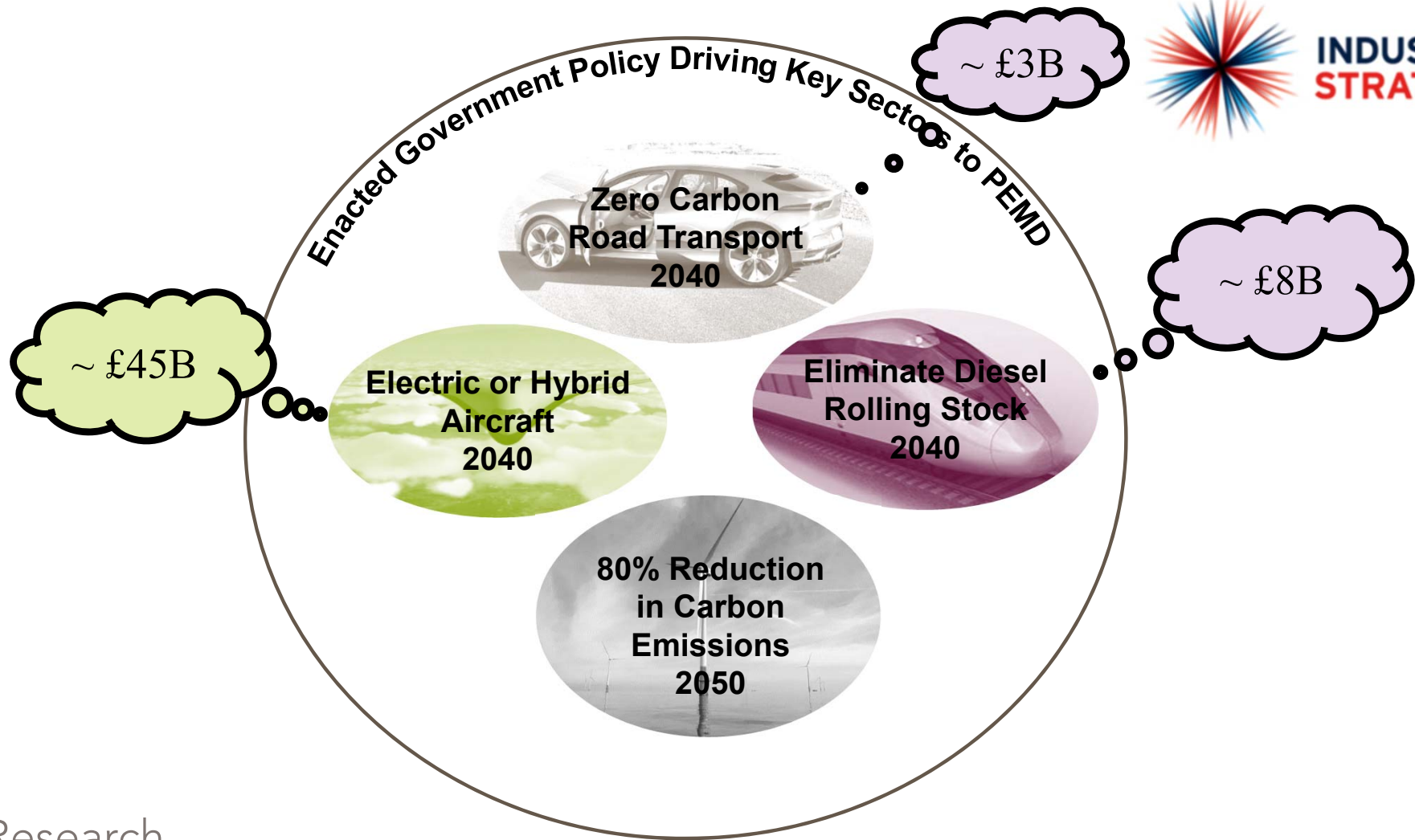


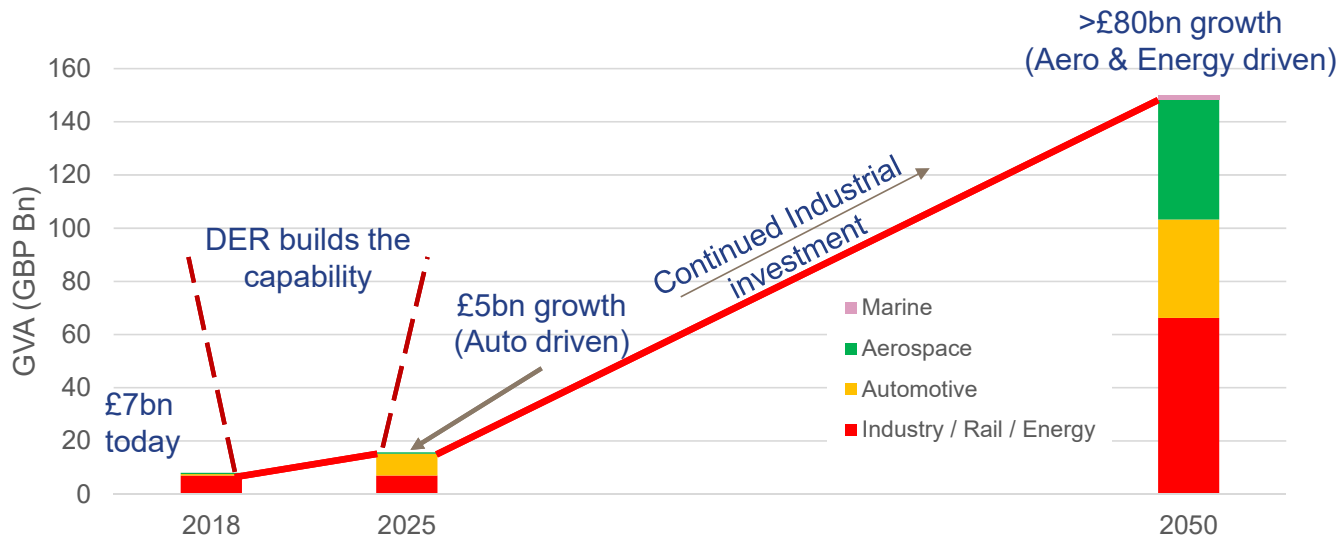
**This is no accident!**

There are three recognised locations to do integrated electrification

- Northern Italy
- UK
- NE USA

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### Why Now?

Transition from ICE accelerating –  
**Hybrids, Pure EVs, Decarbonisation**

International competition is strong – but **still no clear winners emerging**

**UK skills, research base and industry collaboration attractive to investors** while race continues...



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So what are we doing about it?

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Focused across all Sectors

Materials to Manufacturing

Supply Chain Development

Developing World Leading Facilities

Training and Skills



**3 Regional Centres** (£36m ISCF £36m Industry) utilising **existing clusters of UK expertise and infrastructure**:

- Each **focussed around specific problem spaces** (for example advanced manufacturing processes)
- Incorporating **co-located, cross-sector research, equipment** and £8m of **training**



**Fast Start Programmes** (£19m ISCF, £13m Industry) to **fill key gaps** in the innovation pipeline:

- Focus on **cross-sectoral projects**, complimenting existing CR&D funds
- Examples: Materials, Manufacturing, Simulation, Life Cycle Analysis, Systems Integration, Supply chain mapping/design



**High Efficiency, High Volume Supply Chains** (£10.5m ISCF, £10.5m Industry), delivering cross sector high volume UK supply chain opportunity:

- Hard **focus on 2025 target to build £5bn additional PEMD products**, 40% local content
- Engage supply chain organisations to develop innovative and differentiated production methods optimising productivity.



**Low Volume, High Value Supply Chains and Tier N development** (£10m ISCF, £7m Industry); longer term, **niche markets, SME growth**:

- Design and development of **flexible low/medium volume manufacturing facilities** and supply chains
- Delivery of cost effective toolkits for production control, business improvement supplier network development





# Update on challenge progression

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# Fast Starts & Centres

- Fast starts
  - Design will be industry led with academic partnership
    - Look for these to continue through to CR&D
    - Informed by three pieces of work
      - Techworks
      - APC
      - HVMC Catapult
- Regional centres?
  - Need to follow on quickly

# Latest timeline for all Wave 3 Challenges

| Item   | Key dates                                 |
|--|---|
| Industry negotiations target completion date | 22 <sup>nd</sup> February (Completed)     |
| Drafting letter to SoS (by SIL and UKRI)     | w/c 25 <sup>th</sup> February (Completed) |
| Final business case submission               | 3 <sup>rd</sup> May (Completed)           |
| Visit to PIC                                 | 26 <sup>th</sup> June                     |
| Delivery plan submission                     | 20 <sup>th</sup> June                     |
| Earliest funding competitions expected       | Autumn 2019*                              |

\* See next slide

## Competition process

- Competitive process for the 'Fast Start', the Centres and CR&D.
  - Fast Start competition first
    - As soon as we can, target is July.
    - Two streams (Up to £1M and between £1M and £3M)
  - Centres competition to follow shortly thereafter
    - Target Autumn 2019
  - CRD competition will follow in approx. April 2020/21
- This will use Innovate UK competition processes.

- Opportunity is NOW!
- £Bns in supply chain
- UK is a World Leader in tech, but not PROCESS
- DER seeks to solve this
- £80m is a start



# Driving the Electric Revolution

## Thank you.

### **UKRI Challenge Team:**

|                    |                            |  |
|--------------------|----------------------------|--|
| Matt Boyle         | Interim Challenge Director | <a href="mailto:Matt.Boyle@innovateuk.ukri.org">Matt.Boyle@innovateuk.ukri.org</a>                 |
| Neale Ryan         | Deputy Challenge Director  | <a href="mailto:Neale.Ryan@innovateuk.ukri.org">Neale.Ryan@innovateuk.ukri.org</a>                 |
| Martyn Cherrington | Innovation Lead            | <a href="mailto:Martyn.Cherrington@innovateuk.ukri.org">Martyn.Cherrington@innovateuk.ukri.org</a> |
| Rav Babbra         | Innovation Lead            | <a href="mailto:Rav.Babbra@innovateuk.ukri.org">Rav.Babbra@innovateuk.ukri.org</a>                 |
| Ellie Gilvin       | EPSRC Lead                 | <a href="mailto:Ellie.Gilvin@epsrc.ukri.org">Ellie.Gilvin@epsrc.ukri.org</a>                       |
| Ian Swan           | Senior Programme Manager   | <a href="mailto:Ian.Swan@innovateuk.ukri.org">Ian.Swan@innovateuk.ukri.org</a>                     |

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