

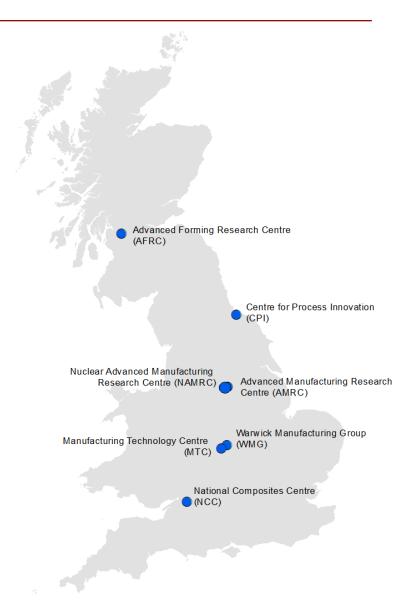
CATAPULT High Value Manufacturing

Evaluation of the High Value Manufacturing Catapult

Retrospective Evaluation: Draft Findings

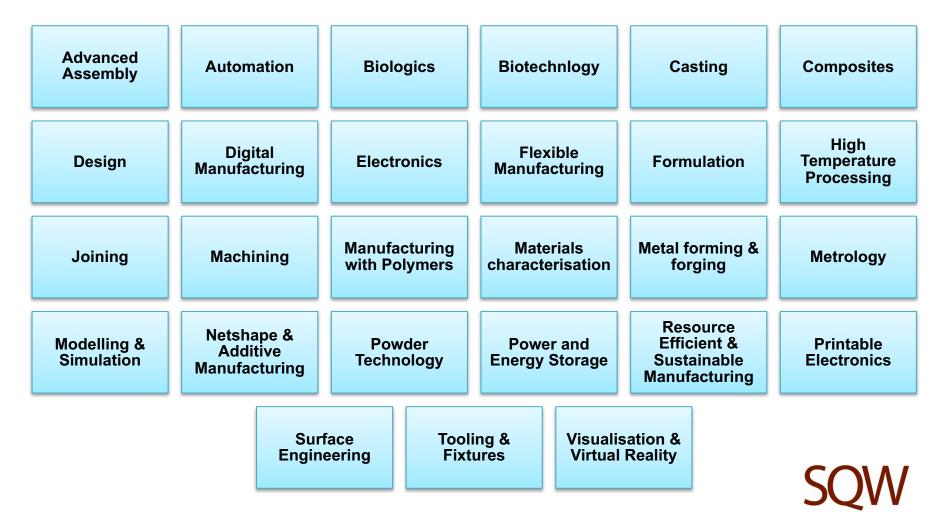
Overview of HVMC

- HVMC is the largest and most mature of the network of Catapult Centres across the UK
- In 2015/16 HVMC had 1,800 employees and received £163m in core IUK funding over 2012/13 to 2015/16
- In 2015, 'core' HVM industries supported 1.35m jobs, and generated turnover of £295bn and GVA of £93.3bn
- Seven Centres across the UK, as set out in the map opposite
- HVMC 'core' Executive Team based in the West Midlands



HVMC technology coverage

• 27 technology areas covered by the HVMC

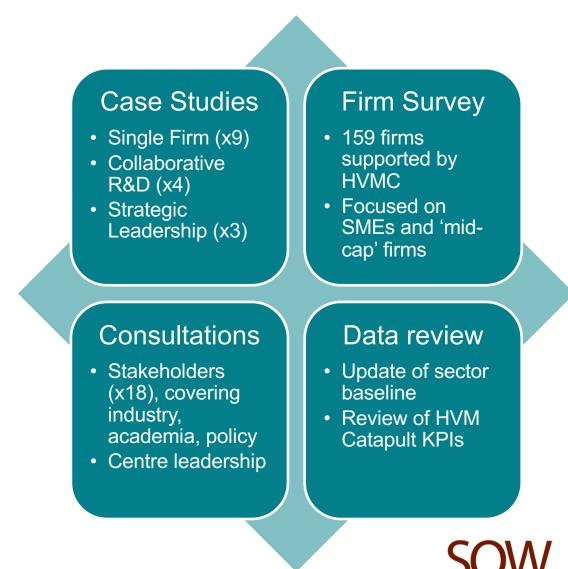


Context

- Overall aim of the HVMC is to significantly grow the contribution of the manufacturing sector to the UK economy
 - Helping accelerate new concepts to commercial reality
 - Long-term initiative to create a sustainable high value manufacturing future for the UK
- This involves a very broad service offer to industry
 - Spanning many technology areas, service offers and engagement models
 - With a bespoke support offer that is tailored to individual company needs
 - For a diverse target group, spanning start-ups, established SMEs and large multinational firms, and across a wide range of sectors
 - Offer is continuously evolving and developing as new opportunities emerge
- The HVMC also delivers interdependent activity through:
 - Strategic work seeking to provide leadership and influence on policy
 - Skills and competence development to develop the people working within high value manufacturing
- The evaluation is framed around these activities to capture the full range of impacts expected to be generated

Methodology

- The purpose of the retrospective evaluation was to assess the impact of the activities of the HVMC from its inception in 2011 through to mid-2016
- The evaluation adopted a mixedmethods approach, reflecting the diversity, complexity and scale of the HVMC



- *Contribution analysis* as overarching approach reflecting:
 - Breadth of service offer & non-standard customer journeys
 - Non-linear and varied routes and time-paths to impact
 - Outcomes that are difficult to trace/quantify
 - Importance of external factors impacting on performance
- Evaluation covers three 'Strands' of HVMC activity and the links between them
 - Industry Support, i.e. developing the performance of firms
 - Strategic Leadership, i.e. developing the sector context to support innovation & growth
 - Competence Development, i.e. developing people & knowledge

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Logic model across the 3 Strands

| Context | ∢ | Activities | → | Outputs | → | Outcomes |
|---|--------------------------------|--|----------|--|---|---|
| Market failures preventing investment | | Strand 1: Industry Support | | | | |
| in innovation by UK manufacturing firms, risk, uncertainty externalities. Increasingly competitive international market for high value manufacturing investment, talent & R&D | ^ | Product/process research and development (incl. collaborative R&D and commercial research projects) Business capacity development Facilities Relationship development | | New and/or improved products and process developed Business investment Skills enhancement New relationships New businesses created Funding bids submitted Business cases made / rejected | | Product and process improvement Business innovation capacity and capability Business performance improvements Investment and funding leverage Business resilience Environmental performance Sector wide outcomes e.g. GVA |
| ↓ Objectives | Strand 2: Strategic Leadership | | | | | |
| Grow the contribution of the manufacturing sector to the UK economy. Accelerate products and processes from concept to | | 'Doing' through undertaking research and strategy development etc. 'Thinking' through policy engagement, horizon scanning etc. 'Connecting' through hosting events, involvement in industry groups/panels etc. | | Research outputs produced Though leadership publications Interactions with organisations & agencies developing industry regulations and standards Connections made | | Changes to behaviours, attitudes and investment of industry base Influence of policy and research Resilience of the sector and supply chains |
| commercial reality ↓ | 1 | Strand 3: Competence Development | | | | |
| Inputs Annual expenditure of c.£220m p.a., on third-third-third model Headcount of c.1,800 staff | | Delivery of training and on-the-job learning/knowledge transfer Studentships Placements Apprenticeships | | Staff engaged in training / competence development Qualifications Employment | | Improved individual skills / employment Sector wide outcomes e.g. upskilled workforce |

Draft findings from evaluation

Strand 1: Industry Support findings

- The HVMC has accelerated the progress of new technologies, and has (or will) lead to supported firms introducing new products, services and processes ...
 - Firms supported generally experience a combination of effects e.g. product <u>and</u> process development – reflecting the tailored and integrated nature of the support offer
- ... and it has **generated substantial benefits in terms of business performance**, albeit many of the effects are expected in the future
 - For large firms the evaluation demonstrates that routes to outcomes are complex through multifaceted and on-going engagement with the HVMC. Notable effects include: investment in new plants/R&D hubs creating jobs (e.g. a new facility with 100 jobs), increased sales, and cost savings from improved manufacturing processes. The effects cannot be 'scaled-up' given the specific nature of the activity/firms, but the aggregate effect is likely to be very substantial
 - > The evidence suggests that the effects for large firms and SMEs/mid-caps are 'additional':
 - > 44% of SMEs/mid-caps reported benefits had been accelerated by the HVMC, and around one-third reported they probably (19%) or definitely (12%) would not have achieved the outcomes without HVMC support
- The findings need to be viewed in the context that other factors have also contributed to the outcomes reported by firms, e.g. other R&D activity, new business plans/strategies.
 - The evaluation indicates there are often a number of mutually re-enforcing factors of which the HVMC is an important one – that are all required to generate outcomes.

Draft findings from evaluation

Strand 2: Strategic Leadership Findings

- The HVMC is perceived by those involved in high value manufacturing to have exerted strategic leadership and influence
 - This has helped to change the perceptions and profile of high value manufacturing, and provide the lead on key technology and market opportunity areas
 - > This reflects the wide range of 'strategic' activity delivered, both by the HVMC Centres and the 'core' team
- The case studies found evidence of the **HVMC delivering tangible outputs from strategic activity** such as the creation of the Composites Leadership Forum
 - The evidence on outcomes from these efforts is limited at this stage: however, strategic influence is hard to 'capture' formally, and takes time to work through fully, and tangible effects are expected in the future
- The scale and breadth of the HVMC was recognised by stakeholders as a key factor in its ability to deliver strategic leadership
 - This scale and breadth provides the HVMC with a 'critical mass' of expertise and capacity on high value manufacturing not found elsewhere, enabling it to deliver additionality in terms of strategic effects

Strand 3: Competence Development Findings

- The evaluation indicates that the HVMC has delivered a range of skills-related benefits
 - Two-thirds of SMEs/mid-caps surveyed indicated they had experienced improved staff skills/knowledge as a result of the support from HVMC to date
 - The survey evidence is corroborated by the case studies including with large firms where skills benefits were identified, through both formal and informal mechanisms
- These skills benefits are generally experienced alongside other effects, with competence development part of a broader set of engagements to support businesses
- The HVMC has also played an important role as a **source of people/expertise to work in industry** via staff movements, and supporting the development of skills amongst young people e.g. via apprenticeships, placements and internships
- The scale of activity in Competence Development has increased over the evaluation period