

Industrial strategies for national, regional and local policymakers – High Value Manufacturing Landscape refresh 2015

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Topics

2011 – 2012 study

Related work 2012 – 2014

Current study

Discussion





UK Future Manufacturing Landscape 2011/2



To map the for the 15 – 25 year horizon

The most important trends influencing the changing nature of manufacturing

- The greatest challenges and opportunities
- The capabilities needed in the UK to capture these opportunities

To help develop the medium to long term strategy of the High Value Manufacturing Catapult





Related work: 2012 - present

Sector and other Deep Dives

- Food
- Healthtech (Pharma, BioPharma, Medical Devices)
- Energy
- Oil & Gas
- Construction
- Electronic Systems

MoD Science and Technology Landscape

NPL: National Product Verification Programme roadmap

EAMA: Machinery and allied component supply chain strategy scoping

LEPs

- Liverpool City Region
- Swindon and Wiltshire
- Alconbury Weald Enterprise Zone





Objectives and deliverables 2014 - 2015

Produce an updated and solid policy document, which can be built upon further and is agreed by stakeholders across industry, government and research, *informing Innovate UK HVM strategy and Innovate UK HVM CR&D calls*

Provide information and processes to support the clarification and development of plans for the development of Manufacturing Competence across appropriate Sectors and Government (e.g.: Innovate UK/HVM Catapult/Research Councils/BIS/MoD and DSTL), *integrating with the high level priorities of the HVM Catapult operational strategy*





Work plan

Q2 14	Q4 14 Q1/15	Q2 15	Q315
Phase one	Phase two	Phase three	Phase four
 Mobilisation and development of initial sector 'thumbnails' and landscape input data 	 Review and improvement of sector and landscape data Confirmation of key challenge selection criteria and areas Identification of a small number of potential areas for international collaboration 	 Deep dives into selected challenge areas to improve data quality and identify key development priorities Consultation events with senior industrialists International collaborators' further development 	 Cross sector competence mapping Further consultation and testing Final report





HVM Landscape definitions

WORK IN PROGRESS

Business Capability: The ability of companies to respond to market/customer needs, competiveness	
qualities/characteristics/functionalities, though the application of Manufacturing and other Competences v the assets required to exploit it	′e /ith
 Manufacturing Competence/s*: A tool, technique or know-how (whether technical or operational) which when combined with other competences and resources – enabling (one or more) capabilities Product technology competences (i.e. related to the technologies delivering core application technology functionalities) Materials competences Production technology competences Management/operational/Supply chain competences Enabling technology competences (e.g. measuring, characterising, testing technologies; advanced materials design/development competences; ICT, modeling/simulation) System engineering/integration competences 	-

Note: Innovate UK HVM and the HVM Catapult's purpose is to support the the selective Manufactuing Competences (in technological terms within TRL range 3-6), to enable companies better to capture value through enhancement in the global competitiveness of their Business



HVM Challenge definition

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An HVM challenge is:

A significant **opportunity or threat** to UK industries' and firms' ability to create value in the global market place in 2030, which requires:

- New/enhanced **business capabilities** (to meet the above opportunities/threats)
- New/enhanced manufacturing competences (to create the above capabilities)
- New/enhanced intervention(s) by one or more institutional actor(s) to deliver on UK value potential





Sectors covered in the workshops to date

End Use Sectors

- Food
- Industrial BioTech
- Pharma/BioPharma
- Defence and security
- Agritech
- Aerospace
- Space
- Automotive
- Rail
- Energy
- Built environment

Cross cutting sectors

- Chemicals
- Textiles
- Electronics
- Materials
- Robotics and Automation

Cross sector themes

- Flexible manufacturing
- Design

Identified but not covered by workshop attendees

- Agriscience
- Oil and Gas
- Civil Nuclear
- Business Services





Further validation and development

Further steps are required to validate and develop the challenge list, including gaining increased industrial input

Targeting greater representation in:

- Agritech
- Oil and Gas
- Civil Nuclear
- Business Services

Regional consultations are planned with industry in Q2

Further consultations may be required with the Sector Councils TBC

Up to ten selected challenge 'deep dives' in two phases





Questions

- What are the major challenges for High Value Manufacturing in the UK?
- What government interventions and institutions are needed exploit the UK's potential?



