

1 – SCHEME DETAILS					
Project Name	AMRC Lightweighting UK at Doncaster	Type of funding	Grant		
Grant Recipient	The University of Sheffield	Total Scheme Cost	£37.1m		
MCA Executive Board	Business Growth	MCA Funding	Up-to £14m (DMBC/MCA)		
Programme name	Business Growth	% MCA Allocation	37.7%		
Current Gateway Stage	SBC	MCA Development costs	n/a		
		% of total MCA	n/a		
		allocation			

2 - PROJECT DESCRIPTION

The second Advanced Manufacturing Research Centre, will be an open access research facility of 3823m2, housing a unique capability supporting development of world-class future composites manufacturing in the UK at both scale and rates never previously attempted. The outcomes will be exploitation of the benefits of composite materials and automated manufacturing of large-scale components, including lightweight structures; corrosion resistance and fatigue resistance on large high-rate components; increased productivity; reduction on CO2 emissions and through life costs; maintenance, consumables and material waste.

Demonstrating the UK is a global R&D world leader; turning science and ideas into solutions; attracting people with world-leading skills and talent to the UK.

The Lightweighting UK programme at the Advanced Manufacturing Research Centre (AMRC) Doncaster is split into three 'projects' (referred to as a tripartite package), with a total cost of £74.6m. These are as follows:

- Project 1 capital build: total cost £37.1m, which is expected to be funded by regional partners and the UK Research Partnership Investment Fund (UKRPIF). This will deliver a capital new build facility of 3,823 sq. m located at Gateway East Doncaster.
- Project 2 research programme: total cost of £7.9m, which is expected to be funded by Aerospace Technology Institute (ATI) (Isothermic High-rate Sustainability Structures (IHSS) programme) and will comprise a series of R&D projects undertaken within AMRC Doncaster

• Project 3 - research equipment: total cost of £29.6m, which is expected to be funded by ATI (Hi-rate Manufacturing Automation of large-scale Composite Structures (HICOMS) programme) and cover the procurement and installation of equipment within the facility at AMRC Doncaster

The subject of this application to the MCA is Project 1, where up to £14m is being sought from regional partners for the capital works and £23.1m is being sought from UKRPIF. If the application is progressed to the next stage, the applicant needs to specify the precise amount of funding (within the £14m envelope) they are seeking from SYMCA, and how much will be sought from Doncaster MBC.

In response to clarification questions, the applicant has said the £14m will be used to pay for the following:

- Ongoing professional fees, to include (but not limited to) Project Manager, Cost Manager, Structural and Services Technical Advisors, Clerk of Works, BREFAM Assessor
- Ongoing Main Contractor Prelims costs to cover staff, site accommodation, plant hire costs
- Works on site, including build costs, furniture, fixtures and equipment, ICT, fit out and external costs.

It is important to note that the other funding streams are yet to be confirmed. Under Project 1, an application for UKRPIF funding was submitted in October 2022, and the outcome of this application is expected in February 2023.

Overall, the MCA 'ask' is clear at a headline level, but further details will be required if the project progresses to the next stage.

3. STRATEGIC CASE

Project rationale

Overall, based on the information provided by the applicant in the SBC and supporting documentation/material, there appears to be a clear and valid strategic rationale for public sector intervention given the scheme's plausible contribution to key local/national Government priorities. However, whilst the rationale is logical (based on the market failures and other failures), this has not been clearly articulated or evidenced in the SBC. If the application is progressed to the next stage, the applicant should (at a minimum):

- clearly articulate the market and other failures that justify public sector intervention, and provide underpinning evidence
- provide a clear statement as to why the project cannot be funded by the University internal funds, why commercial funding cannot be accessed, and why the market cannot provide 100% of the funding
- undertake market testing and provide an assessment of anticipated demand (scale and nature, willingness to pay etc) and underpinning evidence.

A key gap in the SBC at present is the lack of evidence on demand. A demand assessment has not been undertaken as yet, e.g. to test potential demand for membership and facility use from the private sector. This should be undertaken if the application

	is progressed further. It is important to provide evidence of sufficient demand from wider businesses/other stakeholders to ensure the facility is likely to be sustainable in the longer-term, once these initial R&D programmes are complete.
Strategic fit	The applicant provides evidence of alignment with the Stronger and Fairer strategic outcomes, as set out in the SEP. For example, by providing new high skilled employment opportunities, the project will align with the stronger strategic outcome. The project aims to contribute towards the fairer strategic outcome through providing health benefits (medical insurance, health checks, flu jabs and eye tests) to all employees, and through creating jobs with wages significantly higher than the regional average, both of which strongly align with the focus on improving wellbeing and raising quality of life. The applicant anticipates that the project will have a catalytic effect on productivity and wealth creation, through enabling the progression of the second and third phases of the Lightweighting UK tripartite package of projects.
	The SBC also indicates that the project will contribute towards significant job growth (including 2,481 jobs created, 424 safeguarded, plus 80 safeguarded in the construction industry directly attributable to the AMRC Doncaster build project). However, the basis for these job estimates is not clear.
	The SBC also provides evidence of alignment with the Greener objective in the SEP, highlighting that the University's dedicated Energy Team will work in close collaboration with the Project Team to ensure the University's Carbon Reduction targets for capital projects are adhered to in accordance with (or in excess of) national environmental sustainability objectives.

4. VALUE FOR MONEY

The SBC indicates the project has the potential to deliver a significant range of economic benefits (outputs and outcomes), the majority of which will be achieved as a result of the tripartite package combined.

The SBC points to the potential creation of 2,481 jobs, safeguarding 424 jobs (plus 80 jobs safeguarded in the construction industry) and (up to £20bn return in UK exports over the 10 years following transition to production at full rate. At this stage, the assessor has not been able to undertake detailed consideration of value for money; however, based on the costs associated with Project 1 only, the cost per gross job created is c. £22k. Based on the full costs associated with the three projects (AMRC Doncaster, IHSS and HICOMS), the cost per gross job created is c.£37k. Both are considered reasonable, given the jobs created are expected to be high value R&D jobs.

It is also plausible to assume that the scheme could generate substantial benefits for the city region that are not quantifiable and may be achieved over the longer term (e.g. improved local profile, attracting increased inward investment etc.).

Further information, including more detail about the gross and net economic impacts and associated value for money, including formal assessment of costs, net additional benefits and BCR, will be required at OBC.

The evidence presented in the SBC, and response to a clarification question requesting more details regarding the options considered, do not suggest that a suitable options assessment has been undertaken at this stage. Further details of the options considered would be required if the application is progressed to the next stage.

5. RISK

The applicant has provided a reasonable assessment of risks to the project and outlined appropriate steps that will be taken to reduce the likelihood of the risk occurring. A range of risks are considered, and the applicant has also provided a separate risk and opportunity register with further details about risks that have been logged as the project has progressed, in addition to management actions planned, action completion date, estimated financial impact and factored risk allowance. This provides reassurance that several key risks have been appropriately identified and appropriate actions are being taken to mitigate most risks.

6. DELIVERY

The project appears to currently be on track against the timetable for delivery. A detailed Gannt chart has been provided, which outlines the planned programme of work.

There are some risks associated with the timetable for delivery highlighted by the applicant, notably the requirement to secure both SYMCA funding and UKRPIF funding to support delivery.

Overall, the timetable appears to be reasonable if there are no delays to any element of the plan, and the applicant is able to procure a contractor before funding for Project 1 has been confirmed. This may be somewhat optimistic, especially as four of the five "top delivery risks" in the application relate to timing/delays.

Annex 1 – Strategic Policy Fit

To what extent does the project meet the MCA's strategic objectives as set out in the of the MCA Corporate Plan 2021-22?

Outcome	Strategic Objective	R/A/G Rating	Comments
Stronger Achieve sustained good growth, underpinned by productivity gains that exceed the UK average	Leading an economic transformation by:	G	
	 creating not just a bigger economy but a better one: higher- tech, higher skill, and higher-value - backing wealth and job creators 		
	enabling businesses to survive, adapt and thrive and be more innovative and resilient as we come out of the pandemic and resulting economic downturn	G	
	stimulating local economies by investing in the infrastructure, transport and digital capabilities to create jobs and transform places	G	
Greener	Leading a green transformation by:	G	
Drive forward environmental sustainability to achieve our net- zero carbon target by 2040	decarbonising our economy, regenerating the natural environment and accelerating Net Zero Carbon transition		
	 capitalising on technological and scientific capabilities to improve the resilience and quantum of clean energy supply, storage, distribution and usage 	G	
	revolutionising transport, getting South Yorkshire moving by foot, bike, bus, tram and train	R	
Fairer Unlock prosperity by eliminating the wage gap and health inequalities between South	Leading a wellbeing and inclusion transformation by:	G	
	raising quality of life, reducing inequality, and widening opportunity for South Yorkshire people		
	equipping people to contribute to and benefit from economic prosperity	Α	

Yorkshire and the	9. supporting people to improve their skills, get back to work,	Α	
national average	remain in or progress in work, or set up in business and		
	thereby accelerate social mobility		

8. RECOMMENDATION AND CONDITIONS

Recommendation	Proceed to OBC
Payment Basis	-
Conditions of Award (including clawback clauses)	

In summary, the assessor's recommendation is that the AMRC Doncaster Project 1 is taken forward to OBC, on the basis that the additional information outlined in the assessment will be required at this stage.

Specifically, the key points to consider at the next stage include the following:

- A clear breakdown of what will be funded with the SYMCA grant (and which elements will be funded by UKRPIF), and a clear distinction between what is being requested from SYMCA and DMBC
- A clear statement as to why the project cannot be funded by the University internal funds, why commercial funding cannot be accessed, and why the market cannot provide 100% of the funding
- Clear articulation of the market and other failures that justify public sector intervention and underpinning evidence
- An assessment of anticipated demand for the AMRC Doncaster and extent to which the facility is likely to be sustainable operationally over the medium/longer term
- A more comprehensive description of options and appraisal (including justification of the choice of shortlisted and discounted options)
- Coverage and level of detail provided on project outcomes and impacts revised to include a full assessment by the applicant of gross and net additional employment and GVA contributions of the shortlisted options (including detail on any assumptions made and consideration of additionality factors)
- A more comprehensive project spend profile, and assessment of the BCR for the shortlisted options
- Sensitivity testing, outlining the potential impact of uncertainties and risks to the project (e.g. lower than anticipated demand) and the implications for the BCR of the preferred option.