Net impact GVA

Initial Government investment for industrial engagement

£37.5M

£27.5M

£7.1M

£1m in grant and other income including Horizon 2020 and Innovate UK grants

£3.5m worth of industry sales from 37 customers

167 projects focused on developing new tools and applications in key sectors across the economy

100 projects with commercial companies

70% of projects are with repeat clients

54% of clients increased their capacity to innovate

Half of users report sales are increasing, or are expected to increase, as a result of working with the Hartree Centre

42% of users report improved international competitiveness

32% consumer goods

14% ICT

21% other sectors

7% chemicals

6% energy

6% transport

14% manufacturing

167 projects focused on developing new tools and applications in key sectors across the economy

In 2016:

93% of users increased understanding of the value of HPC

85% of users reported an increased use of HPC capabilities in their organisation

In our first four years we organised, hosted or contributed expertise to:

130 training courses and skills development activities

130

3,760 training days

With an estimated market value equivalent of £1m+

£3.5m worth of industry sales from 37 customers

We held 30 events

With around 950 attendees

To access the full public impact evaluation report detailing the findings and methodology visit www.hartree.stfc.ac.uk/impact or call 01925 603708

Work with us

To find out how you can work with us, visit www.hartree.stfc.ac.uk or email hartree@stfc.ac.uk

Source: Technopolis, 2018

Our impact

Highlights from the Hartree Centre Phase 1 & 2 baseline impact evaluation

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Our mission: To transform the competitiveness of UK industry by accelerating the adoption of high performance computing (HPC), big data and cognitive technologies.

At the Hartree Centre, we combine world-class facilities and technologies with specialist technical expertise to work far beyond anything the market will provide.

Powering productivity for the UK economy

In the first four years of our operations we delivered over 160 research projects with more than 60 collaborators. These projects spanned most sectors of the economy in areas such as FMCGs, manufacturing, chemicals and transport.

Around 100 of these were with commercial organisations including SMEs such as Global 365 and Zencotech, as well as some of the largest UK companies such as Unilever, Dyson, GlaxoSmithKline (GSK) and Rolls-Royce.

It is estimated that our direct work with industry will generate a total net impact (GDP) of up to £57.8M in commercial benefits to our users, in addition to a £21.9M net impact from our operational expenditure during our first four years.

This impact to industry is a conservative estimate, and with more partners able to value the contribution of the centre in the future, we expect this to increase.

With total economic impact already close to £57.8M initial investment in the Centre, the report states that these are “strong results for what is a young and relatively small centre of excellence.”

The full benefits of early projects are still working their way through the system and “as interactions with businesses mature, with more joint projects and more time elapsed, we expect an even greater proportion to report positive commercial results.”

This will increase again as our IROR programme gathers pace and those projects also start producing commercial impact.

An innovation boost for UK industry

We are the only UK facility dedicated to building industry capabilities through HPC, big data and cognitive computing.

We provide access to emerging technologies, internationally renowned expertise, training and skills programmes and consultancy services to help our clients gain an edge over their competitors.

Half of those consulted have seen or expect to see an increase in their sales as a result of working with us. We are also making strong positive contributions to the innovative capacity, reputation and international competitiveness of our clients and users.

From healthcare apps to monitoring systems for road and rail bridges, we enable clients to develop improved products and services, bringing them to market quicker.

From research to revolution

Our clients include leading industry players and start-ups working on exciting big things as well as members of the UK and international research community.

The impact evaluation revealed that a high majority of academic partners collaborated with the Hartree Centre as positive. The reported beneficial effects included improved analytical techniques, domain knowledge and research quality.

From research to revolution

We have collaborated with partners to win additional funding for research projects from the EU Horizon 2020 programme, Innovate UK and UK Research and Innovation councils.

We also carry out in-house research projects into the development of next-generation HPC and digital tools to equip our staff with emerging skills, improve data services to industry and contribute to the HPC sector.

Championing HPC skills and capabilities

We believe organisations drive by bridging skills gaps and overcoming innovation challenges.

Through our collaborative projects and services we deliver substantial knowledge transfer and skills development opportunities.

We share our knowledge and expertise with clients to build in-house capabilities, for example by hosting joint days or providing on-line training. Clients find this invaluable, with the majority valuing that working within increased knowledge of advanced data science techniques and improved modelling and simulation capabilities.

As part of our wider commitment to raise awareness about the potential of HPC and AI, build technical competencies by training the next generation of computing specialists, we host or contribute to a wide range of courses and workshops.

In our first four years we contributed to 130+ specialist short courses and skills development opportunities. In 2016, around 30 more organisations benefited from 300+ in-house events resulting in an estimated training benefit to attendees of £115.5M.

Leading the big data and cognitive revolution

The future global competitiveness of UK industry and research relies on applying transformative digital tools such as cognitive computing or artificial intelligence to complex business and societal challenges.

Our IROR and Cognitive Accelerator programmes are applying and developing these tools, and associated enabling technologies, across the life sciences, engineering, manufacturing and chemistry and materials.

Delivered in partnership as part of a strategic collaboration with IBM Research – and backed by £150M of Government funding – both our IROR and Cognitive Accelerator programmes are underway and are delivering ever increasing productivity, manufacturing benefits and economic impact.

We believe organisations thrive by bridging skills gaps and overcoming innovation challenges.

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