

# The University of Hertfordshire Impact Study 2023



## **Hatch Urban Solutions**

Hatch's UK Urban Solutions group is a leading economic and social research consultancy, with over 20 years of experience in helping clients to understand and articulate the impacts of investment, secure funding and planning consent, develop impactful strategies that respond to local socioeconomic context, and provide the evidence needed to evaluate performance.

We specialise in providing robust assessments of economic and social value, working across a very wide range of sectors from higher education through to energy, innovation, land and property, tourism, arts and culture. We have worked for many universities and university groupings across the UK to help them articulate their value at a local, regional and national level. This complements our wider work with the sector to access funding and evaluate the impact of projects.

[www.hatch.co.uk](http://www.hatch.co.uk)

**£730m** GVA **and** **11,170** FTE jobs  
supported nationally in 2020/21

Every **direct job** at  
the University generates  
**3.5** FTE jobs in the **UK**  
through knock-on  
impacts

The **largest**  
international student  
population of **any**  
**East of England**  
university

**Number one** university for graduate  
**social mobility** in the East of England

**£11m**  
of economic benefits  
**CDP**  
workforce  
development  
services  
in 2020/21

**Top 25%** for research  
of all UK impact in the  
universities 2021 Research  
Excellence  
Framework

productivity  
spillovers of **£70m**  
in the private sector from funded  
research

**£30m** GVA **and** **500** FTE jobs generated  
by supporting businesses over three years



# Foreword

Our belief is that whatever your background, wherever you are from, higher education can be a transformational experience. Our pledge to our students, staff and organisations is to power potential: to take the creativity, talent, intellect and passion they arrive at the University with, and enhance and refine it to become the foundation of a bright and successful future.

Universities are increasingly being recognised for the critical roles they play in local and national economic development and regeneration, and Herts is no exception.

As this impact report demonstrates, we play a considerable role within our local community, the region, the country and across the world as an employer, educator, business partner and driver of research for globally significant projects.



Collated using the most up-to-date and robust data, this report also shines a light on us as an anchor institution, showing that we are making a powerful social and economic impact within the regional ecosystem. We are a significant contributor to the national economy, with £730m of output and 11,170 jobs dependent on the University and its activities.

We send 8,000 highly skilled graduates out into the workforce every year, 18% of whom are employed at companies across the East of England, and 29% of whom find employment in healthcare professions nationally. We also partner with fundamental private and public sector organisations, including the NHS, Ministry of Defence and GlaxoSmithKline, to target specific industry needs and help to fill key skill and knowledge gaps. We are mentors of businesses large and small; research leaders; job creators; policy changers; and developers of tomorrow's leaders, innovators and trailblazers in healthcare, education, business, science, humanities, law, sport and creative arts. We are champions of entrepreneurs and accelerators of many new businesses, achieving the highest growth in active graduate start-ups across all East of England universities in the last five years.

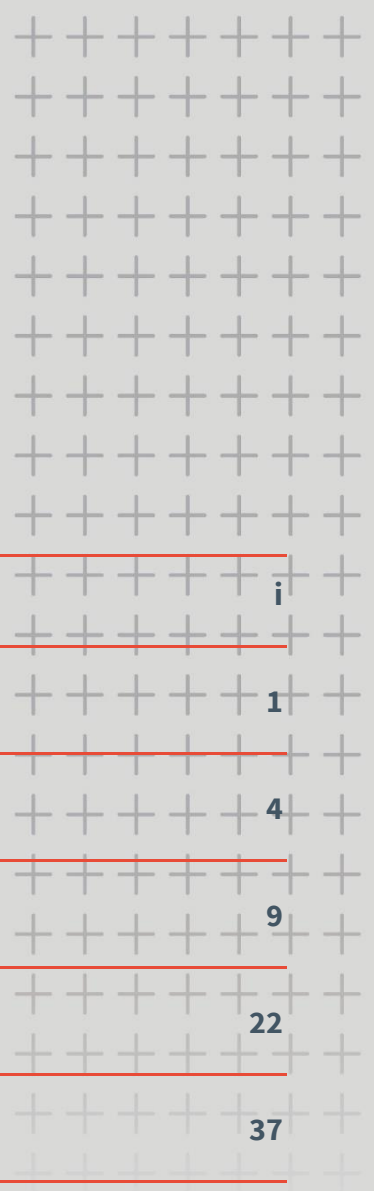
As the number one University in the East of England for social mobility, we are also staunch advocates of widening access, and welcome a varied global community from all backgrounds: 60% of our students are from ethnically diverse communities.

At a time when the world is radically changing, and every day poses new challenges and needs, we have the ideas, skills, perspectives and solutions to drive progress and help transform the economic, social and cultural future of Hertfordshire and the UK.

We are having an impact, and we are helping you to make yours.

**Professor Quintin McKellar CBE**  
**Vice-Chancellor, University of Hertfordshire**





## **Contents Page**

---

**Executive summary**

**i**

---

**Introduction and approach**

**1**

---

**The University as an economic anchor**

**4**

---

**The University's economic footprint**

**9**

---

**Driving entrepreneurship and business growth**

**22**

---

**Talent- and workforce-development**

**37**

---

**Research and innovation**

**52**

---

**Concluding observations**

**66**

---

**Disclaimer and limitations of use**

A white humanoid robot is shown from the chest up, holding a black smartphone in its right hand. The robot has a friendly face with large, expressive eyes and a small smile. The smartphone screen displays a colorful, abstract logo consisting of a central blue circle surrounded by several smaller circles in red, green, and yellow. The background is blurred, showing other parts of the robot and some ambient lighting.

# **EXECUTIVE SUMMARY**

# Executive Summary

- i. Hatch has been commissioned to assess the economic contribution of the University of Hertfordshire. The assessment brings together an up-to-date evidence base and analysis of the wide range of channels through which the institution supports the economy at a local, regional and national level.

## Methodology

- ii. The methodology is set out in Section 1 of the report and in the Technical Appendix. The assessment draws on a wide range of data sources including a detailed data request to the University (covering its supply chain, the location of its students etc.) and published data from HESA (e.g. on university finances and business engagement). We also undertook selective consultations with key University staff to build the evidence base.
- iii. The study included a specially commissioned survey of businesses that the University has worked with over the past four years. The survey covered the range of services offered by the University, from business start-up support through to consultancy and innovation projects. The purpose was to gain additional, first-hand insight into impacts achieved from this support.
- iv. The core economic assessment captures impact for the academic year 2020/21, the most recent year for which data was available at the time of writing. The assessment of impacts on entrepreneurship and business growth, talent- and workforce-development, and research and innovation take a broader time period, covering 2019-2022. The table below summarises the key sources of information used in the study and the latest year for which data is available across each at the time of writing.

<b>Table 1</b> Year of the latest available data for key sources	
<b>Data Source</b>	<b>Latest data available</b>
Strategic Report and Financial Statements	2020/21
Higher Education Statistics Agency	2020/21
Bespoke Procurement, HR and Student Data Extracts*	2020/21
Higher Education Business and Community Interaction (HE-BCI) Survey	2020/21
Graduate Outcomes Data	2019/20
Bespoke Businesses Supported Data Extract*	2019 to 2022
Bespoke Placements Data Extract*	2022/23
Bespoke Apprenticeship Data Extract*	September 2022
Bespoke Continuing Professional Development Data Extract*	2020/21
Research Excellence Framework	2021

Source: Hatch, 2022. \*These bespoke data extracts were provided by the University.

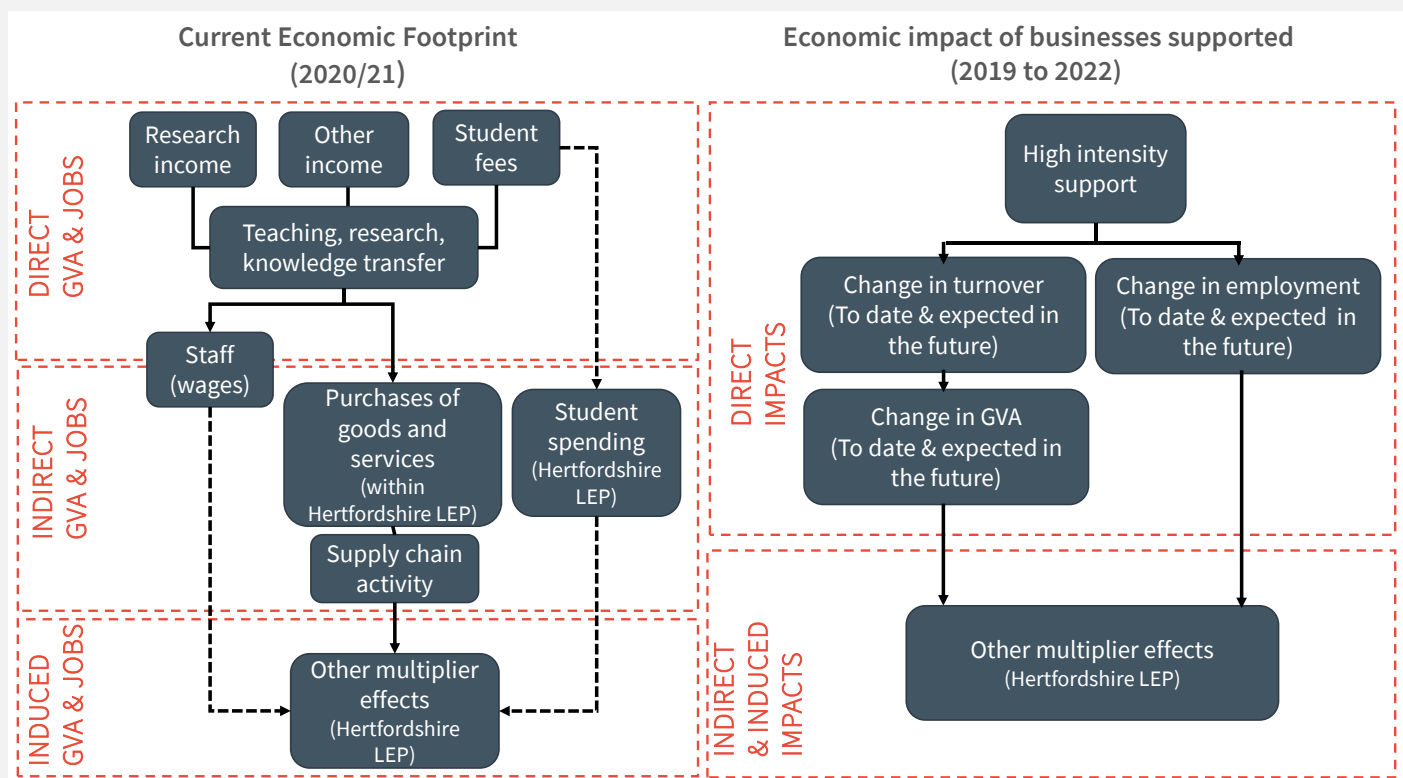
- v. Where possible, impacts are quantified and expressed in monetary terms. These quantitative measures have been supplemented with qualitative analysis and case studies. Where economic



impacts are quantified, this is done in terms of Gross Value Added (GVA)<sup>1</sup> and Employment (Full Time Equivalents – FTEs).

- vi. The economic impact assessment covers a wide range of impact types. The assessment framework for quantified impacts is summarised below.

**Figure 1.1 The economic impact framework**



Source: Hatch, 2022

<sup>1</sup> GVA is the key measure of the contribution of an organisation, sector or region to the national economy.

## Headline results

- vii. In 2020/21, the University had a gross quantifiable economic footprint of **6,280 FTE jobs and £330m in Gross Value Added (GVA) for Hertfordshire and 11,170 FTE jobs and £730m GVA for the UK.**

### Demand side effects

- viii. The table below summarises the main sources of impact.

**Table 2** Summary Economic Footprint of University of Hertfordshire, 2020/21 (GVA in £m, 2021 prices)

	Hertfordshire		UK	
	FTEs	GVA	FTEs	GVA
Direct University activity	2,560	190	2,560	190
Supply chain expenditure effects	530	25	1,430	90
Staff expenditure effects	510	30	1,030	90
Student expenditure effects	2,680	85	6,150	360
<b>Total economic footprint</b>	<b>6,280</b>	<b>£330m</b>	<b>11,170</b>	<b>£730m</b>

Source: Hatch calculations, based on University of Hertfordshire data. Note: results are rounded so may not sum exactly to totals. This table can be found on page 21.

- ix. The headlines from this analysis are as follows:
- The University directly employs 3,300 staff, equivalent to 2,560 FTEs. This makes it one of the largest local employers in Hertfordshire after the NHS and the local authority.
  - In 2020/21, the University spent £120 million with UK-based suppliers, of which £35 million was with suppliers located in the East of England and £31 million in Hertfordshire. This expenditure supported an estimated 530 FTE jobs in Hertfordshire, and 1,430 FTEs across the UK, including multiplier effects.
  - The expenditure of University staff and those working in its supply chain generates further economic activity. We estimate that this spending supports a further 510 FTE jobs in Hertfordshire and 1,030 FTEs in the UK including multiplier effects.
  - Finally, as the University's 30,000 students spend money in the local economy and beyond, this supports employment in a range of sectors, for example, in retail, hospitality and transport. We estimate that, excluding spending on campus<sup>2</sup>, this student spending supports 2,680 FTEs in Hertfordshire and 6,150 FTE across the UK.
  - With nearly 10,000 students from 10 countries around the world, the University has the 12<sup>th</sup> largest international student population of all UK universities, and the largest of any university in the East of England. These students bring additional spending to the UK and especially to the local areas in which they reside. Included in the above figures, the 2020/21 off-campus expenditure of these students alone supported an estimated 1,650 FTE jobs across the UK.

<sup>2</sup> The economic impacts of students spending on tuition fees, accommodation and on the University campus itself is already accounted for in the direct effects above.

- In a recent student panel survey about working part-time, of the 82 students who said they engaged in part-time employment, 64 were international students. International students indicated they worked an average of between 11-20 hours per week (20 hours being the maximum allowed in line with UKVI visa requirements<sup>3</sup>) in sectors including hospitality, industrial and warehouse, and social care<sup>4</sup>. This suggests an important source of labour supply for local businesses in sectors that are currently experiencing labour shortages.
- x. Together, the University supports a total of 6,280 FTE jobs in Hertfordshire and 11,170 FTEs across the UK. To put these figures into context, this implies that:
- 1 in every 100 jobs in Hertfordshire is supported by the University and its knock-on impacts<sup>5</sup>.
  - for every direct job at the University, a further 1.5 jobs are supported in the wider Hertfordshire economy, and 3.5 across the UK.

### **Supply side effects**

- xi. The University also generates quantifiable spillover<sup>5</sup> effects on the supply side of the economy through its work with industry and entrepreneurs:
- businesses that have engaged with its wide-ranging support offer (see Driving Entrepreneurship and Business Growth below) over the past three years have generated attributable growth in GVA equivalent to £30m, with associated growth of over 500 net additional FTE jobs.
  - businesses expect this impact to grow to £40m in GVA and net 830 additional jobs over the next three years, as the support continues to have lasting impacts.
  - as the University's funded research activities lead to breakthroughs that spill over into the private sector, they serve to improve national productivity. We estimate that the university's funded research activities in 2020/21 will generate productivity spillovers equivalent to £70 million.
  - the University's CPD workforce development services (see Talent- and Workforce-Development below) in 2020/21 will generate an estimated £11 million in economic benefits in 2020/21.
- xii. We provide an expanded summary of these economic contributions below.

<sup>3</sup> According to UK immigration rules, students sponsored by a higher education provider with a track record of compliance can work up to 20 hours a week during term-time, with full-time employment permitted outside of term-time: [Immigration Rules - Immigration Rules: Appendix Student - Guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/immigration-rules-immigration-rules-appendix-student-guidance)

<sup>4</sup> Responses were based on a sample of 64 international students that indicated they work part-time.

<sup>5</sup> Note: there are a total of 662,000 employees in Hertfordshire in 2021.

<sup>5</sup> Note: 'Spillover effect' refers to an economic event in one context that occurs because of something else in a seemingly unrelated context.



## An anchor institution

- xiii. In many respects, the University is an exemplary anchor institution. As the only University located in the county of Hertfordshire, it occupies a unique role in the regional ecosystem, and takes the responsibilities that come with this very seriously. For example, the University:
- is the only University represented on the Hertfordshire Local Enterprise Partnership (LEP) Board. Senior staff sit on key sub-groups such as the Enterprise and Innovation Board, and Skills and Employment Board.
  - has senior representation on every district council-level economic development group.
  - feeds into industry bodies such as the East of England Confederation of Business Industry (CBI) and Hertfordshire Chamber of Commerce.
  - has been represented on the Board of Universities UK since 2015 by the Vice-Chancellor, who was elected Vice-President (England and Northern Ireland) of Universities UK in 2020.
  - supports government agencies and departments including the UK Health Security Agency, the Defence Science and Technology Laboratory and the Department of Transport, through its academic experts.
  - influences decision-making up to government level across key policy areas including health, education, transport and science through its senior leaders and academics, who sit on regional and national boards. For example, it worked in tandem with England's Economic Heartland to lead a national review of transport, as well as working with the Department for Transport and Hertfordshire County Council.
- xiv. As a result of this deep embeddedness, the University is proactively able to feed county- and national-level needs and opportunities into its strategic aims and objectives.
- xv. As an illustration of this, its refreshed Enterprise Strategy is strongly oriented towards sectors identified as high priority by stakeholders in the county, including screen arts, health and care, medicines and tech, and advanced materials and manufacturing.
- xvi. The University works hand in hand with the Local Enterprise Partnership, which has co-invested in major campus developments such as contributing to the £12m Enterprise Hub and the £7.5m Institute for Sport.

## Driving entrepreneurship and business growth

- xvii. The University of Hertfordshire recognises the important role it plays in supporting Hertfordshire's place-making activities, and also regional and national priorities, by supporting entrepreneurs and businesses.
- xviii. As a civic institution with a global outlook, it strives to offer proactive, multi-disciplinary and collaborative business support that remains responsive to key socioeconomic challenges. This ranges from managing the response to the Covid-19 pandemic through its Volunteer Business Support Service, to addressing longer-term issues like health inequalities and the transition to a green economy.

xix. The University understands that entrepreneurialism is key to implementing the innovative solutions needed to tackle complex socioeconomic challenges. As such, it is ingrained in its ethos, and it influences everything the University does.

xx. This is evident in how the University provides businesses with personalised support tailored to their needs – **more than 740 hours of mentoring support were provided in 2021/22** – by uniquely combining traditional business support with the expertise that sits across the institution. This expertise comes from both its diverse pool of academics and its specialists.

Almost **three quarters of the 6,200 hours of business advice delivered in 2021/22 were either innovation, research and development, or skills and training focused.**

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**“The University of Hertfordshire’s Enterprise and Business team are very professional, experienced and a fantastic resource to tap in to.”**

Claire Bruce, HR Consultant and Company Director, Bespoke HR Solution Ltd

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xxi. Scaling-up businesses is a pervasive problem in Hertfordshire. By viewing start-up, early-stage and business growth support as part of a continuum, the University is well-positioned to empower entrepreneurs to navigate the journey to scaling up their company – thereby boosting the productive potential of the local, regional and national economy – a UK government priority.

xxii. The University views inspiring and supporting the next generation of entrepreneurs as the first step of the business support continuum. Through its curriculum and extra-curricular activities, such as start-up bootcamps and funding competitions, the University encourages its students to think like entrepreneurs. There were **262 active**

**University of Hertfordshire graduate start-ups as of 2020/21**, demonstrating the **highest growth of any East of England university over the last five years**. These graduate start-ups are estimated to have generated **£0.5m in Gross Value Added**. In a similar vein, University of Hertfordshire students feel more empowered to go into self-employment, with **nearly four times as many of its recent graduates being self-employed** compared to other UK universities.

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**“The Enterprise Hub provides an inspirational environment in which businesses can network with peers, access vital support, and benefit from the expertise of a world-class university with a reputation for championing entrepreneurship. It brings education and enterprise together under one roof [...]”**

Adrian Hawkins OBE, Chair of Hertfordshire LEP<sup>6</sup>

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xxiii. The University’s incubation activities make start-up and early-stage support accessible to entrepreneurs. The £12m Enterprise Hub building offers incubation facilities that complement the all-campus Incubator programme the University has been running since 2018, which has supported **more than 140 start-up and early-stage companies**.

<sup>6</sup> [University of Hertfordshire launches new Enterprise Hub in Hatfield, Hertfordshire LEP, December 2020](#) [University of Hertfordshire launches new Enterprise Hub in Hatfield, Hertfordshire LEP, December 2020](#)

- xxiv. Young businesses are empowered to realise their full potential through the University's scale up support activities. For example, as of autumn 2022, the University's Accelerator programme supported **10 SMEs to develop new sustainable products and services** through a tailored package of intensive support.
- 
- xxv. **One of 20 universities to have received University Enterprise Zone status**, the footprint of the business support that the University of Hertfordshire provides extends well beyond county boundaries. **Half of the businesses supported over 2019-22 were Hertfordshire-based, with the remaining half spread across the UK.** The findings of a brand new survey commissioned for this study highlight the levels of awareness around the University of Hertfordshire brand, with **close to 75% businesses making the first approach for support from the University.** The survey also highlighted the wide range of support that businesses accessed, including new product and service development, coaching, mentoring, access to funding, research and cutting-edge technologies, among others. Based on the evidence collected through the survey, we estimate that the University's support for 632 businesses between 2019 and 2022 will generate **£40m in GVA and 830 new FTE jobs.**

## Talent- and workforce-development

- xxvi. The University's multi-pronged approach to talent- and workforce-development equips its diverse body of learners – the University ranks in the **top 20 universities for social mobility** – with the skills that employers need in key sectors such as health and care, science, medicines and technology, screen arts and manufacturing and material.
- xxvii. University of Hertfordshire students benefit from curricula that have been developed with employer needs in mind, utilising the input of each School of Study's industry panels. It is proactive in nurturing the diverse talent it attracts, with **its Black, Asian and Minority Ethnic Student Success Working group having won the 2021 AdvanceHE Award for Teaching Excellence.**
- xxviii. From workshops and careers fairs to mock graduate assessment centres, the Careers and Employment team has a range of tools to support students as they take their next steps. The University ranks in **the top ten in terms of its share (93%) of undergraduate leavers in employment and in further study post-graduation (relative to a group of 20 competitor universities).**
- xxix. The University ensures it is equipped to help students from all walks of life take the first steps in their career post-graduation. For instance, University staff sit on the **'Diversity & Inclusion Task Group' of the Institute of Student Employers**, among others. In turn, this contributes towards encouraging diversity in the workplace.
- xxx. Meanwhile, the University supports its large body of international students to realise their career ambitions, whether those lie abroad or in the UK. By supporting those international students who wish to work in the UK to apply for the two-year UK post-study work visa, the University creates a pipeline of highly skilled talent that can address skill shortages in areas such as computer science. In fact, the majority of international students at the University of Hertfordshire study towards postgraduate degrees, using their culturally unique experiences to explore topics that might have otherwise been unexplored.



- xxxi. The **8,000 highly skilled graduates** entering the workforce annually – double the average volume for universities across the East of England – bring skills that are both economically and socially valuable. For instance, a relatively larger share of the University’s student graduates have degrees in subjects allied to medicine (19% vs 10% across UK universities), education (12% vs 8%) and computing (9% vs 5%). With **29% of graduates finding employment in healthcare professions after graduation**, the University lives up to its commitment of leveraging its expertise in health-related fields to cultivate the next generation of NHS leadership.
- xxxii. The University enriches the workforce pool both at a national and local level. More than a tenth of graduates are employed in Hertfordshire-based companies after graduation, and close to a fifth are based in East of England companies. As such, **the supply of young graduates in Hertfordshire increases by 4% with every annual cohort**.
- xxxiii. As has been increasingly recognised in the national agenda, making education accessible through a range of pathways and promoting life-long learning is key to addressing the current and future talent- and workforce-development needs of the UK economy.
- xxxiv. Through its range of bespoke courses, the University works to broaden access to education, with **12 apprenticeship programmes supporting 805 active apprenticeships as of September 2022**. The University leverages its connections to industry partners and the four further education colleges in the region to ensure its programmes deliver the talent needed across the digital technologies, construction and health and care sectors.
- xxxv. Moreover, **the number of learner days delivered to businesses and individuals increased at a significantly faster pace (65%) compared to other East of England universities (38%)**, reflecting the University’s commitment to upskilling and reskilling the workforce through its Continuing Professional Development (CPD) offer. With **19,500 learner days in 2020/21**, CPD activities delivered an estimated **economic benefit of £11 million**.
- xxxvi. The University also understands that the development of the talent pipeline needed to tackle the future workforce needs of the economy begins well before tertiary education. Through the **Primary Science Quality Mark (PSMQ)**, it has been helping primary schools improve STEM education and leadership since 2018. **It reached 260,000 children in 2021 by working with 13,000 teachers across 804 schools, half of which were in socio-economically deprived areas**.

## Research and innovation

- xxxvii. The University of Hertfordshire is committed to cultivating a sustainable research community by investing and training early-career researchers: offering its staff a wider range of research opportunities, investing in state-of-the-art facilities, and fostering relationships with a diverse network of partners. This enables it to produce world-leading and internationally excellent research that drives positive change through its impact. The University ranked in the **top 25% of all UK universities in terms of research impact** in the 2021 Research Excellence Framework, after seeing the **largest ranking improvement of any university since the 2014 results**.
- xxxviii. The University leverages the depth of its expertise in fields such as healthcare, life sciences and agri-tech to generate research that has a long-term impact, by addressing nationally and internationally significant socioeconomic challenges. For example, responding to pandemics and biohazard attacks, tackling the pressures of an ageing society, and addressing climate

change. **More than three quarters of the University's research** in fields such as psychology, allied health professions, dentistry, nursing and pharmacy, and agriculture, food and veterinary science **was deemed to have an outstanding (4\*) impact.**

- xxxix. Its **embeddedness in a diverse network of stakeholders** (including government bodies and industry partners, as well as other universities and research entities) is crucial to delivering high impact research. These connections yield insights, collaborations and funding that enable the University's academics to engage in high-impact research valued by industry.
- xl. The circle of influence of the University's research community spans local, national and international geographies, including:
- collaborating with the LEP to secure £6m for the Hertfordshire Science Partnership, through which 40 companies were supported.
  - working in tandem with other anchor institutions in the region to support the development of a globally significant cell and gene therapy cluster in Hertfordshire.
  - advancing the UK's bio-detection capabilities by working with the Defence Science and Technology Lab.
  - co-designing the 'Development in Africa with Radio Astronomy' (DARA) initiative that led to upskilling radio astronomers and building STEM skills across Africa, Asia and subsequently South America.
- xli. Reflecting its ethos of entrepreneurialism, one of the University's strengths is in translating research to practical business solutions. Anecdotally, businesses - both small and large - have praised its approach of tailoring a package of support that prioritises their needs. In addition to creating value for the supported business, this approach enriches the University's research activities with insights from industry.
- xlii. The support available from the University can range from short-term consultancy projects to long-term research collaborations, often involving the placement of a graduate researcher. **More than a quarter of the 3,600 hours of research, development and innovation support provided in 2021/22 were delivered through the knowledge exchange programmes** offered by the University. Meanwhile, from 2016-20, **nine projects were supported through Knowledge Transfer Partnerships**, an Innovation UK scheme that has supported research collaborations for the past 40 years. That is **triple the average number of projects** supported across the East of England. The support available from the University is backed by continued investment into state-of-the-art facilities, like the **£89.9m School of Physics, Engineering and Computer Science (SPECS) building**, which is due to open in 2024.
- xlili. Intellectual property co-developed or supported by the University's experts is exploited through spinout companies that transform knowledge to commercially viable products. The University's publicly funded research and collaborations also lead to economic benefits in the private sector through the spillover of productivity, enhancing knowledge and technologies. The **£10 million in income for research from government grants and contracts in 2020/21** generated by the University is estimated to have supported private sector **productivity spillovers equivalent to £70 million.**
- xliv. The University's research activities also enrich the student experience, while ensuring there is a supply of talent with the specialist skills needed by innovative businesses. **Three fifths of the**

**University's academic staff are involved in research and teaching** – the third highest share in the East of England – so the University's teaching is informed by the latest thinking across fields.

- xlv. The University is investing in training and developing the future generation of researchers. It is increasingly becoming an important supplier of specialist talent, **having seen an increase in postgraduate research enrolments over the last five years**, despite them decreasing in the East of England. **Professional doctorates**, combining research with training, **accounted for a quarter of postgraduate research students** in 2020/21, with popular study fields including clinical psychology and education. In line with its commitment to nurturing diverse talent, the University secured £150k of Enhancing Research Culture funding in both 2021/22 and 2022/23.



# 01: Introduction and approach



- 1.1 Universities are increasingly recognised as playing critical roles in local economic development and regeneration. This has been stated in a range of national policy pronouncements from the industrial strategy through to Build Back Better, the government’s growth plan, and the Levelling Up White Paper. At the same time, the role of universities as civic, anchor institutions for their local areas has come to the fore.

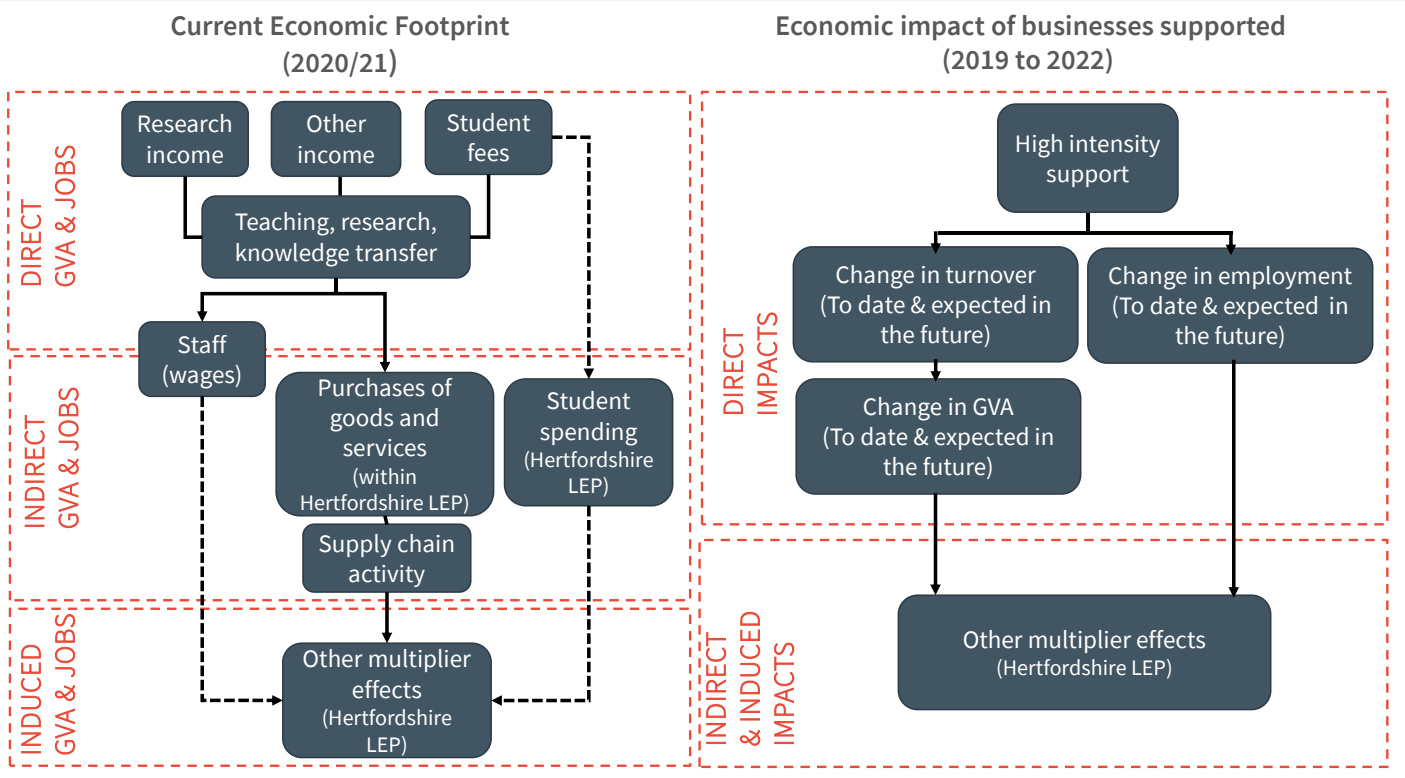
## Scope of the study

- 1.2 In this context, what makes the University of Hertfordshire’s own economic role so powerful is the sheer range of channels through which it helps to support and drive the regional economy. This report brings together the evidence on these economic contributions, quantifying them where possible. It covers the following:
- **section 2** introduces the University as an anchor institution, highlighting its strategic links at a regional and national level
  - **section 3** assesses the University’s quantifiable economic footprint, arising from its role as a major employer, purchaser, and attractor of students and visitors
  - **section 4** reviews the University’s role in talent- and workforce-development
  - **section 5** assesses the economic impact of the University’s work on business and enterprise
  - **section 6** sets out the University’s impact on research and innovation

## Our economic impact framework

- 1.3 The technical appendix provides details of the methodology used to assess economic impact. The overall focus is summarised in **Figure 1.1** (repeated below).
- 1.4 The assessment is informed by a bespoke data request to the University, published data from HESA and other sources, consultations with key contacts within the University and externally, and a set of case studies. This is augmented by a specially commissioned survey of the businesses that the University has worked with, in order to draw out data on impact and perceptions of the support received. Details on the survey are provided in the technical appendix.

Figure 1.1 The economic impact framework



Source: Hatch, 2022

1.5 The assessment of the economic footprint of the University focuses on 2020/21 data. The remainder of the study draws on the most recent data available at the time of writing to provide an up-to-date picture of the various channels through which the University makes an economic contribution at a local, regional and national level. The table below sets out the latest information for which data is available across the key sources available.

Table 1.1 Year of the latest available data for key sources	
Data Source	Latest data available
Strategic Report and Financial Statements	2020/21
Higher Education Statistics Agency	2020/21
Bespoke Procurement, HR and Student Data Extracts*	2020/21
Higher Education Business and Community Interaction (HE-BCI) Survey	2020/21
Graduate Outcomes Data	2019/20
Bespoke Businesses Supported Data Extract*	2019 to 2022
Bespoke Placements Data Extract*	2022/23
Bespoke Apprenticeship Data Extract*	September 2022
Bespoke Continuing Professional Development Data Extract*	2020/21
Research Excellence Framework	2021

Source: Hatch, 2022. \*These bespoke data extracts were provided by the University.



A photograph of two students in a workshop or laboratory setting. In the foreground, a young man with reddish-brown hair is leaning over a workbench, focused on a task. He is wearing a blue shirt and a black long-sleeved shirt underneath. In the background, another student with dark hair is partially visible, also working. The workbench is cluttered with various tools and materials, including a red toolbox, a black container, and some papers. The overall atmosphere is one of active learning and hands-on work.

## **02: The University as an economic anchor**



## The University as an economic anchor

- 2.1 The University of Hertfordshire has its roots in Hatfield Technical College, which was opened in 1952 with a strong focus on the aeronautical industry. It became a polytechnic in 1969 and was awarded university status in 1992.
- 2.2 As the only university in the county of Hertfordshire, the University occupies a unique role in the regional ecosystem and takes the responsibilities that come with this very seriously.

### Strategic linkages

- 2.3 The University is a locally embedded and globally connected institution.

- 2.4 It is connected with the strategic and policy infrastructure within Hertfordshire and its constituent places, as well as at a national level. The University:

- is the only university – and indeed the only research institution – represented on the Hertfordshire Local Enterprise Partnership (LEP) Board, and senior staff sit on key sub-groups such as the Enterprise and Innovation Board and Skills and Employment Board
- has senior representation on every district council level economic development group in the county<sup>7</sup>
- sits on all of the industry panels set up by the LEP, focussing on key sectors such as life sciences and film
- leads the Hertfordshire Higher Education consortium, a partnership with the four further education colleges in the county

- supports, by way of the Vice-Chancellor's role as Chair, the Hatfield Renewal Partnership – a dynamic partnership of key landowners, authorities and education institutions that have joined forces to deliver positive change in the town in line with a shared vision

- 2.5 At a national level, the University:

- feeds into industry bodies such as the Confederation of Business Industry (CBI)
- is represented by staff in its Careers and Employment team on the Diversity & Inclusion Task Group of the Institute of Student Employers, and the Equality, Diversity and

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**“The University of Hertfordshire is a much-valued partner for Hertfordshire County Council and we are all fortunate to have an institution of their calibre as part of the economic, social and cultural fabric of the county. In addition to their academic strengths, the University plays an important role in driving the county’s strong economy and is a centre of excellence that helps attract investment and champion and develop leading global and local businesses.”**

Owen Mapley, CEO,  
Hertfordshire County Council

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<sup>7</sup> Hertfordshire county is comprised of ten local authority districts.

Inclusion Advisory Group of the Association of Graduate Careers Advisory Services (AGCAS), to support its diverse student community transition into employment

- supports government agencies such as the UK Health Security Agency and the Defence Science and Technology Laboratory through its academic experts
- has a Vice-Chancellor who was elected Vice-President (England and Northern Ireland) of Universities UK in 2020 and has been a member of the Board since 2015, while he is also a Board member of University Alliance
- is represented by its most senior leaders and academics on regional and national boards influencing and informing decision-making up to government level across key policy areas, including health, transport, education and science. This has included working with England's Economic Heartland to lead a national review of transport, as well as Hertfordshire County Council and Department of Transport

2.6 The University's international reach draws on:

- its global network of **270,000 alumni**;
- **16 active Transnational Education partnerships** (TNE) across 10 countries, with **5,000 students** studying towards a University of Hertfordshire degree at a partner overseas. In total, partners bring **£4.2m gross income, projected to rise to £6m by 2025**. The University has been a pioneer of TNE in Malaysia, where it has been working for 25 years. It most recently entered into academic collaboration arrangements with a large franchise partner in Egypt (2019), which has grown to one of its main markets (1,500) after Malaysia (3,000 students).
- Its research collaborations with international government agencies and multinational companies.

## How the University responds to regional and national needs

2.7 This degree of embeddedness means that the University is very well plugged into both county-level and national concerns. These concerns are, consequently, prominent within its strategic aims and objectives.

2.8 For example, the University has recently refreshed its enterprise strategy, which has a strong orientation towards sectors identified as high priority by stakeholders in the county, including screen arts, health and care, medicines and tech, and advanced manufacturing and materials.

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**“I always take it for granted that the University and the Local Enterprise Partnership are one and the same.”**

Paul Witcombe, Senior Lead Life Sciences and Advanced Manufacturing, Hertfordshire LEP

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#### **FACILITY SPOTLIGHT: Enterprise Hub, de Havilland campus**

Developed using a £12m investment, including £2.5m of Local Growth Fund monies from the Hertfordshire Local Enterprise Partnership (LEP), the Enterprise Hub opened in March 2020. Through this development, the University significantly improved and expanded the existing support it offered to businesses in the region.

Today, the contemporary, fully-equipped Hub acts as an anchor for the spectrum of services through which the University supports businesses, whether big or small, both locally and nationally. It combines flexible business incubation, office space that can house seven local businesses, and teaching and social areas that strengthen collaboration between students, academics and the business community.

- 2.9 Research England's Knowledge Exchange Framework ranked it **in the top 10% for Local Growth and Regeneration** among a group of 29 universities with similar characteristics in terms of size, student population, portfolio, research activity and relationships with the public sector and industry<sup>8</sup>.
- 2.10 The strategic alignment at the county level is also well illustrated by the fact that the University has developed a number of its major campus development projects in consort with the LEP, with the LEP a major investor into these.
- 2.11 At a national level, the University has:
- supported businesses across the country, as one of only 20 universities to be awarded University Enterprise Zone status
  - been involved in delivering national initiatives, like Help to Grow: Management, which aims to support and upskill SME leaders

<sup>8</sup> University of Hertfordshire's contribution to local growth and regeneration recognised in Research England's Knowledge Exchange Framework (KEF), University of Hertfordshire, 2021

- contributed towards safeguarding the UK's critical infrastructure, for example through its collaboration with DSTL on advancing the country's bio-detection capabilities

2.12 The remainder of this report brings out the detail of what this anchor institution role means in practice, and the impact it has at a local, regional, national and international level.



A photograph of a modern university building with large glass windows and blue panels. Four students are walking away from the camera on a paved path. One student is wearing a white hoodie with 'SO HERTS' printed on the back. To the right, there is a bicycle rack with several bikes parked. The University of Hertfordshire logo is visible on the building's facade.

University of  
Hertfordshire



# 03: The University's economic footprint



# 03 The University's economic footprint

## Overview

The University is a very significant local employer. It employs **more than 3,300 direct staff at different occupational levels**, of whom 62% live locally in Hertfordshire. **1 in 100 jobs across all of Hertfordshire** is supported by the University's presence.

At a regional level, **it is the third largest university employer in the East of England**, after the University of Cambridge and the University of East Anglia. Moreover, **an additional 1,230 people** are estimated to be employed regionally in the University's supply chain and as a result of staff spending.

**1 in 5 students attending East of England universities go to the University of Hertfordshire.** The University's student population has grown markedly, increasing by 21% since 2014/15. Meanwhile, the University has **the largest international student population of any university in the region, and the 12<sup>th</sup> largest in the UK**, making it one of the largest exporters of higher education in the country.

By attracting international students to the UK, the University supports spending on goods and services that's unlikely to have occurred otherwise, both locally and nationally. **International student spending** on goods and services alone generates an estimated **£95 million annually off campus, supporting 1,650 FTE jobs in the UK.**

The University generates income from a number of overseas sources, not only through tuition fees but also via research income and grants. It generated an estimated **£71 million from overseas sources<sup>9</sup>** for the UK in 2020/21.

In total, the University supports **10,800 FTE jobs and £730m GVA** in the UK through its own spending, and through that of its staff and students. The University's impact extends well beyond the confines of its campus. **For every direct job on campus, a further 1.5 jobs are supported in Hertfordshire and 3.5 further jobs are supported in the UK**, as a result of the additional rounds of spending supported by businesses and staff who benefit through the University's activities and the consumption of its students.

<sup>9</sup> This includes tuition fee income from students outside the UK, research income from outside the UK and other services and grants from the EU.

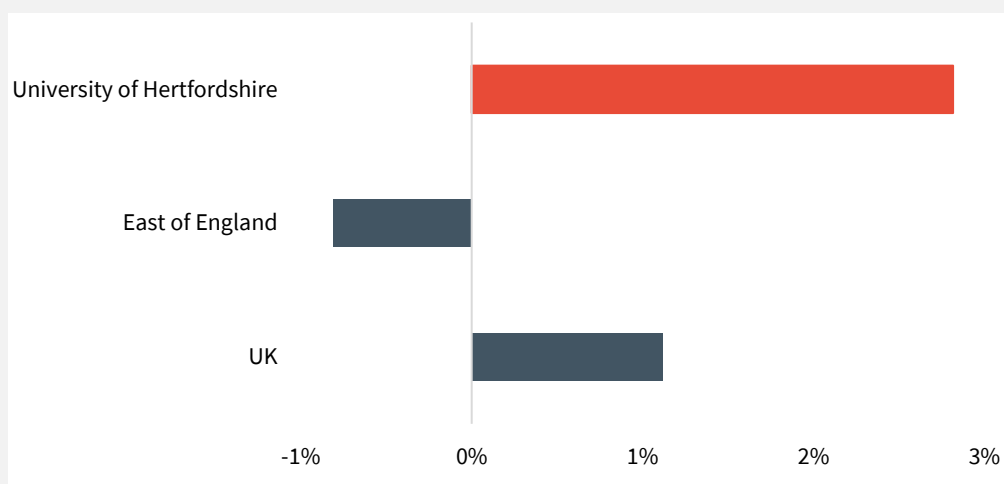
## Introduction

- 3.1 The University of Hertfordshire is a major employer and purchaser of goods and services in the local and wider economy, supporting a series of economic multiplier effects for Hertfordshire. This section explores these effects and puts them into their wider context.
- 3.2 The analysis in this part of the report provides a snapshot of economic contributions in 2020/21 at a local, regional and national level. It considers the following economic effects:
- direct effects
  - indirect effects
  - induced effects
  - student and visitor spending effects

## Direct effects

- 3.3 In 2020/21, the University of Hertfordshire employed **3,360 staff**. Around 1,940 staff are employed on a full-time basis, with the remainder part-time. This equates to around **2,560 FTE** jobs. This makes the University a very significant employer in Welwyn Hatfield, and one of the largest after the NHS and Hertfordshire County Council<sup>10</sup>.
- 3.4 At a regional level, the University is the **third largest employer of all East of England universities** after the University of Cambridge and the University of East Anglia. Between 2019/20-2020/21, the University grew faster in employment terms than the average higher education institution in the East of England and in the UK.

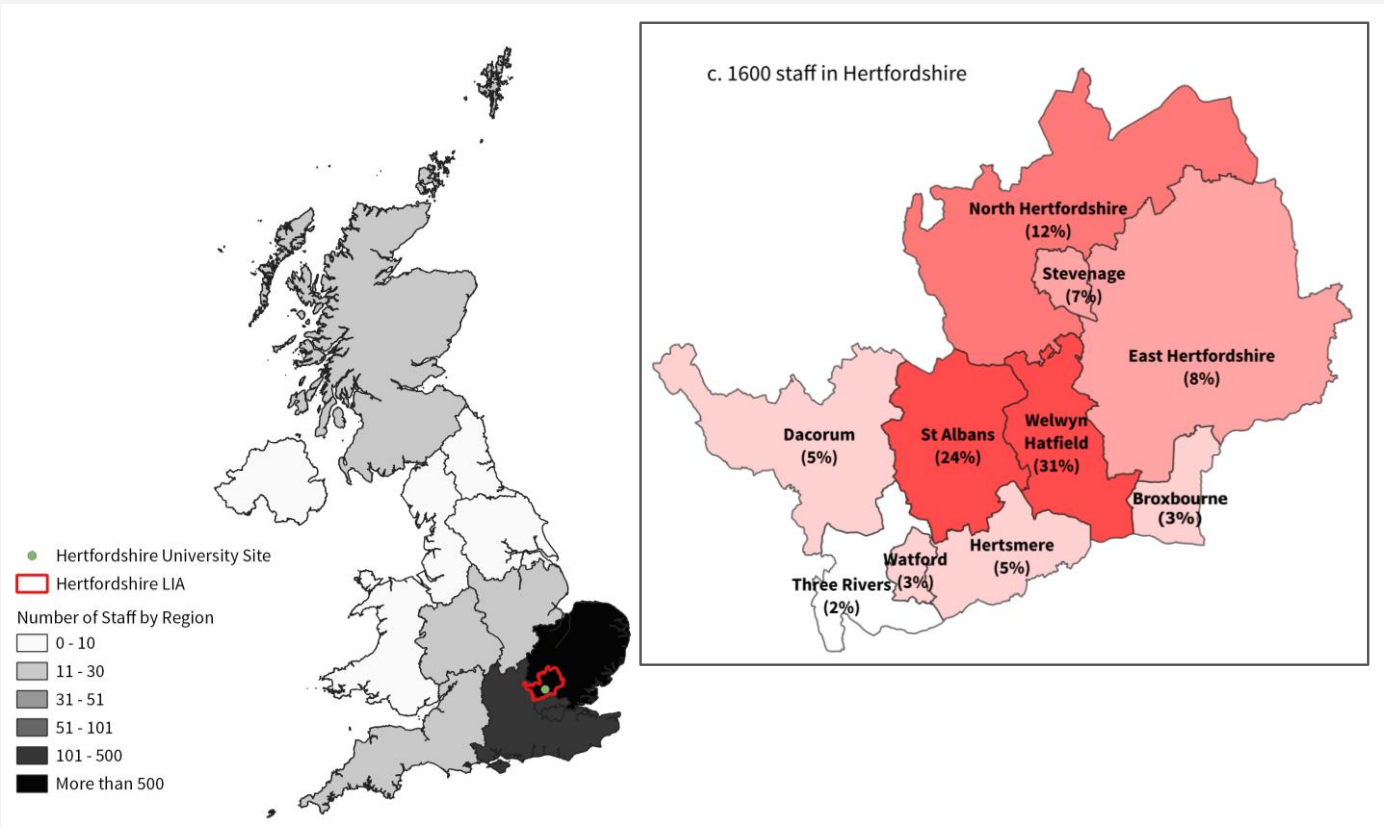
**Figure 3.1 University of Hertfordshire employment growth against regional and national averages in higher education sector 2019/20 – 2020/21**



Source: HESA, Staff numbers by HE provider, 2022

<sup>10</sup> Hertfordshire County Council employed over 8,000 staff according to its Statement of Accounts 2020/21.

Figure 3.2 Location of residence of University of Hertfordshire FTE staff, 2020/21



Source: University of Hertfordshire, 2022. Note: LIA = Local Impact Area.

- 3.5 The majority of staff (62%) live in Hertfordshire. The University values diversity of experience with **20% of its staff being from ethnically diverse communities**, compared to 14% among universities in the East of England<sup>11</sup>.
- 3.6 The University generated over **£300 million in income in 2020/21; the third highest** of any higher education institution in the East of England, and the highest out of the University's identified comparator set<sup>12</sup>. The University's income increased by 11% between 2019/20 and 2020/21, considerably faster than the regional and national averages.
- 3.7 In 2020/21, the University of Hertfordshire generated **£190 million in direct Gross Value Added (GVA)**<sup>13</sup> for Hertfordshire and the UK.

<sup>11</sup> Higher education staff by provider and personal characteristics, Higher Education Statistics Agency, 2020/21

<sup>12</sup> Universities in the comparator set includes: University of Greenwich, City University of London, University of Bedfordshire, Brunel, London South Bank, Middlesex, Anglia Ruskin, Kingston

<sup>13</sup> This is calculated as the sum of Earnings before Interest, Tax, Depreciation and Amortisation) and total Employment Costs, sourced from the University's Annual Report and Accounts for 2020/21

Figure 3.3 University of Hertfordshire Income (£ 000s), 2020/21

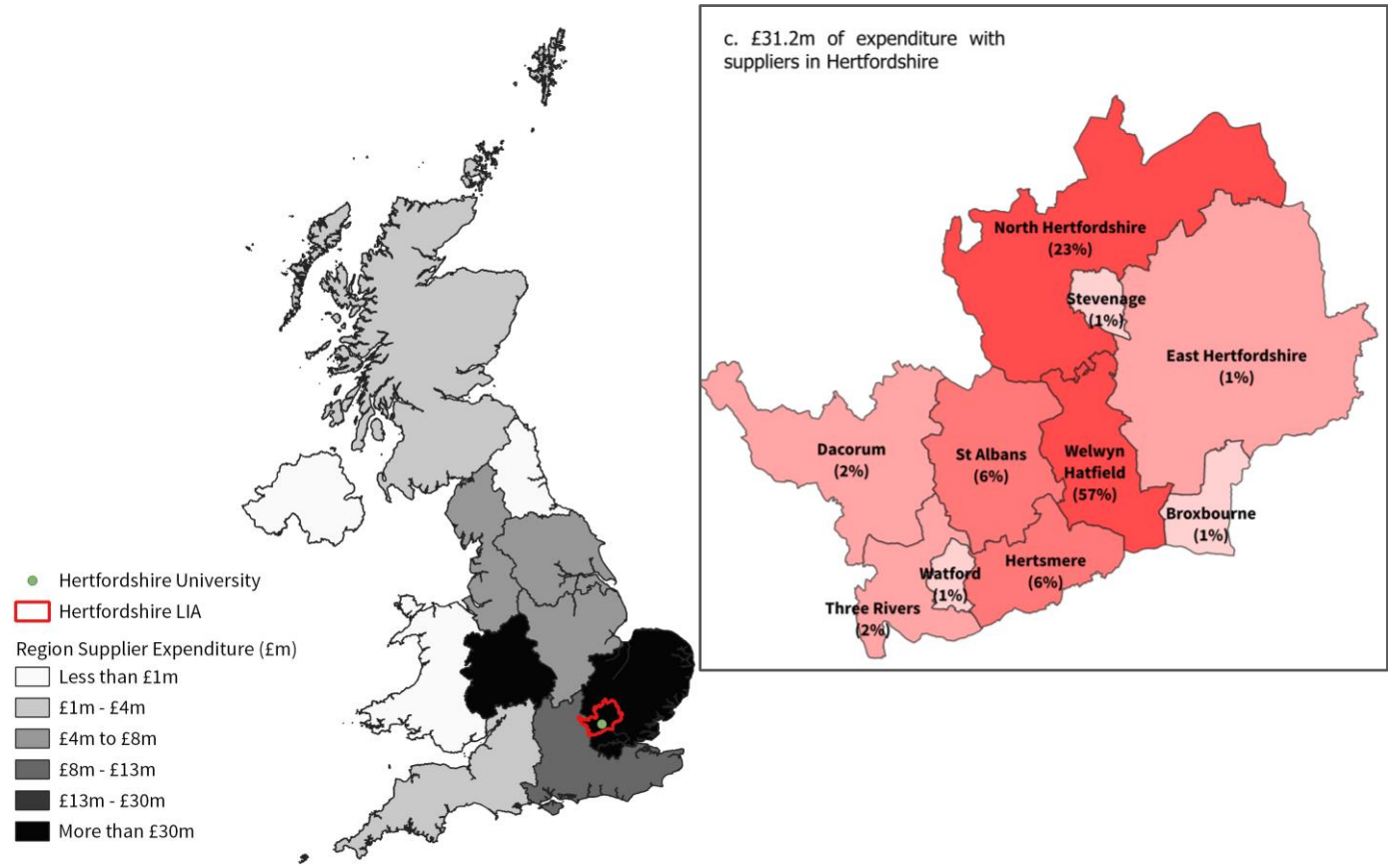


Source: HESA, income and expenditure summary, 2022. Note: HESA defines ‘Other income’ as including other services rendered, residences and catering operations and any other income including capital and revenue grants not displayed elsewhere. Other services rendered refers to enterprise and consultancy work carried out by providers that are not classed as research.

Indirect effects

- 3.8 In 2020/21 the University spent **£120 million with UK-based suppliers** on goods and services to support its operations and capital investments. This includes £21.7m in capital investments (18% of the total).
- 3.9 More than £35 million (29%) of total expenditure occurred with suppliers in the East of England, while spending with London suppliers accounts for over £38 million (32%).
- 3.10 In Hertfordshire, supply chain expenditure reached £31 million, of which about 5% was towards capital investments. 15% of total UK spend was with suppliers in the local authority of Welwyn Hatfield.
- 3.11 Focussing on capital investments more closely, **between 2015/16 and 2020/21, the University made almost £125m worth of capital investments**, equivalent to £21m per year.

Figure 3.4 Value of Supply Chain Spending of University of Hertfordshire, 2020/21



Source: University of Hertfordshire, 2022. Note: LIA = Local Impact Area.

**“We have a fantastic relationship with the University’s Estates team. We most recently delivered the University’s new Enterprise Hub, Institute of Sport and The Forum refurbishment. It has always been a delight to work so closely with a like-minded organisation that hold values and culture in such high regard.”**

Simon Ramage, Director (Delivery), Willmott Dixon





### **FACILITY SPOTLIGHT: The Forum, College Lane**

This £7.7 million redevelopment project, completed in October 2021, delivered new and innovative teaching facilities to the University's College Lane campus and two new social facilities, Bar Seventy7 and The Loft nightclub. The teaching space, which can accommodate 250 people, includes breakout spaces to facilitate a more flexible learning and teaching approach. Each of the two social spaces occupies a floor of a new venue and can accommodate up to 530 people.

- 3.12 We estimate that this external supply chain expenditure in 2020/21 supported **£20m GVA and 530 FTE jobs in Hertfordshire**, and a total of **£90m GVA and 1,430 FTE jobs in the UK**.

### **Induced effects**

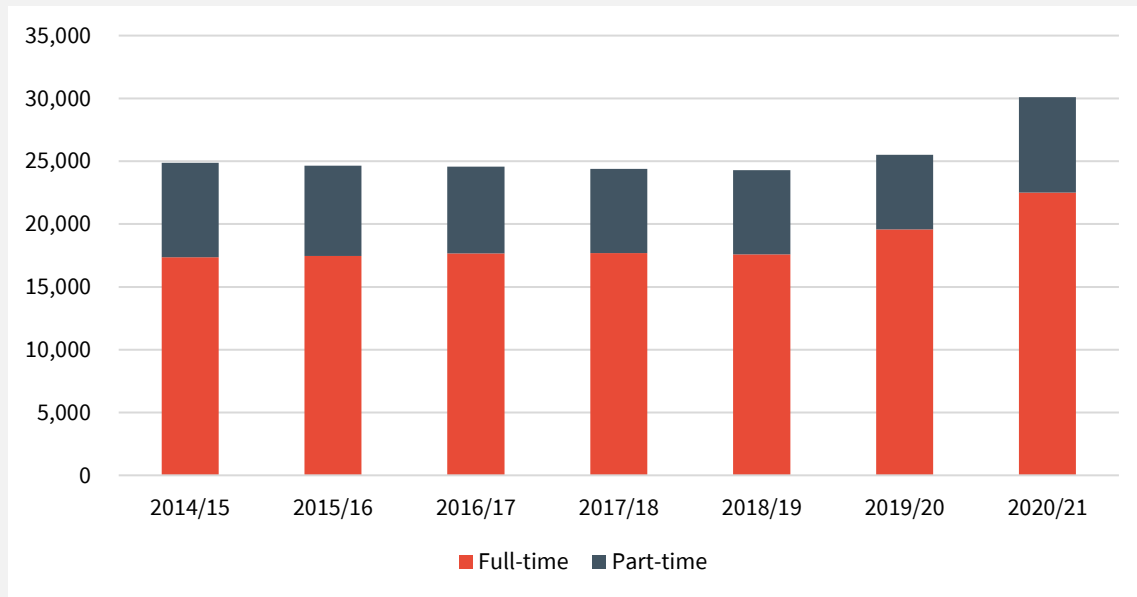
- 3.13 University of Hertfordshire staff living in Hertfordshire earned £66m in gross wages out of the £112m<sup>14</sup> paid to University employees living across the UK. The consequence of this is significant expenditure injections into the county economy from University employees. There are further knock-on benefits locally as staff spend their wages in the area. Combined with the spending of employees in the supply chain, this expenditure drives what are known as induced economic impacts.
- 3.14 We estimate the expenditure of staff employed by the University of Hertfordshire in 2020/21, along with those in the supply chain, supported **£30m in GVA and 510 FTE jobs in Hertfordshire**; and **£90m GVA and 1,030 FTE jobs in the UK**.

<sup>14</sup> Estimate based on data provided by the University of Hertfordshire.

## Student expenditure impacts

- 3.15 The University had a total of **30,100 students in 2020/21**. This means that **just under 1 in 5 students at HEIs in the East of England** attend the University. Its student population grew by 18% between 2019/20 and 2020/21, which is faster than the wider sector averages.<sup>15</sup>
- 3.16 Around 18,400 of all students were enrolled in undergraduate courses. Full-time students made up 75% of the student body, with the remainder studying part-time.

**Figure 3.5 University of Hertfordshire Students by Mode of Study**



Source: HESA, Student numbers by HE provider and subject of study, 2022

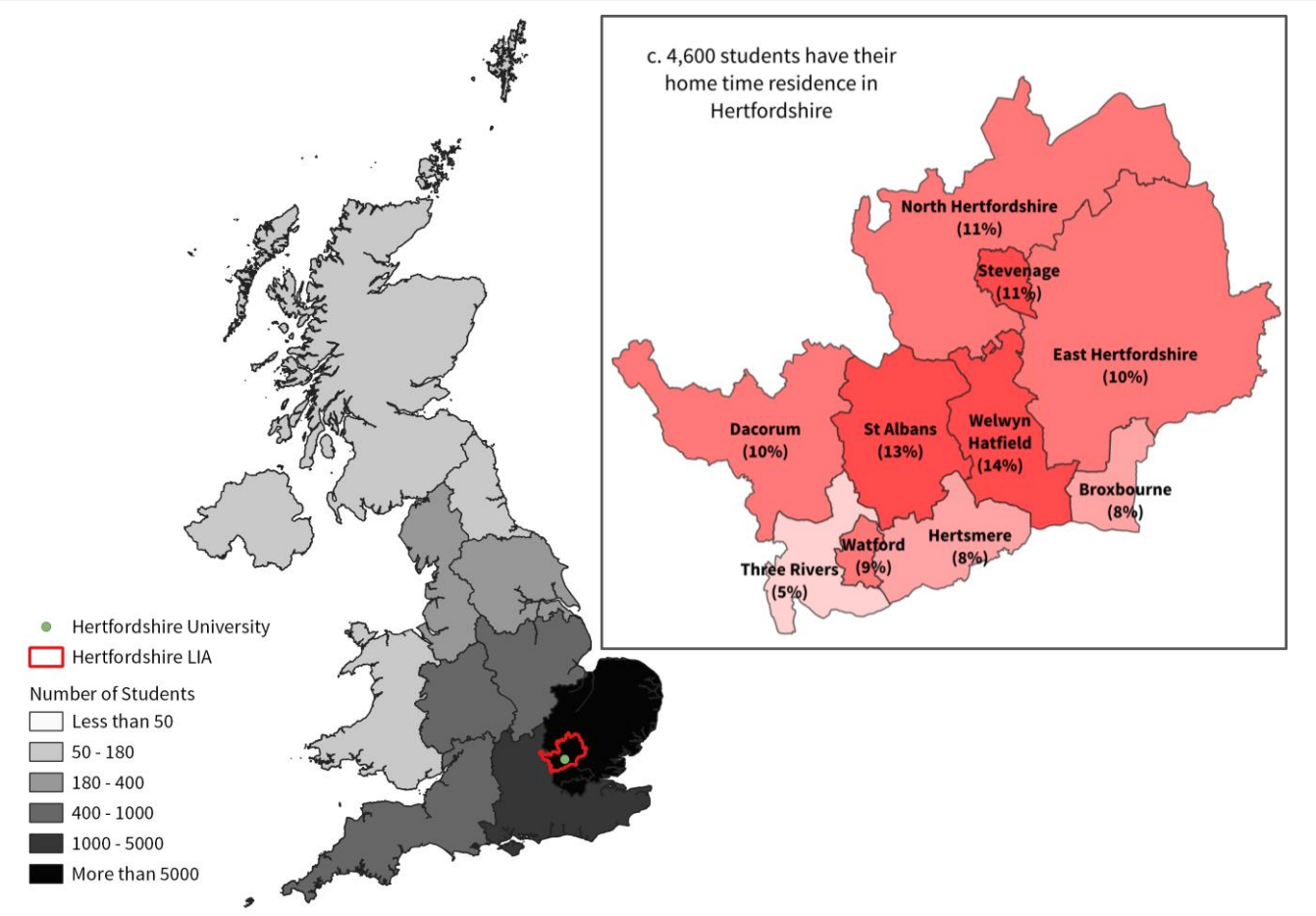
- 3.17 In 2020/21, almost 65% of students came from the UK. Those originating from the East of England accounted for a significant portion (29%) of students, while a notable share (23%) came from London. Around 15% of students came from Hertfordshire, which demonstrates the University's role in retaining young people to study in the county.
- 3.18 46% of students resided in Hertfordshire during term time, predominantly in Welwyn Hatfield (32%). Around 1 in 50 working-age<sup>16</sup> residents in Hertfordshire are students at the University.
- 3.19 The University of Hertfordshire proactively prioritises diversity and around **60% of its students are from ethnically diverse communities**<sup>17</sup>. The Black, Asian and Minority Ethnic Institutional Action Plan, which aims to reduce the Black, Asian and Minority Ethnic awarding gap by 50%, exemplifies the University's commitment to equality and inclusion. The University is one of only nineteen universities in the UK to hold a Race Equality Charter Mark Bronze award, first earned after the pilot scheme in 2015, and retained in 2021.

<sup>15</sup> In comparison, higher education providers across the region and nation grew by 13% and 8% respectively.

<sup>16</sup> Defined as residents aged 16-64 years old

<sup>17</sup> Strategic Report and Financial Statements 2020-21, University of Hertfordshire. This rose to 66% according to the more recently published Strategic Report and Financial Statements 2021-22.

Figure 3.6 Home Residence of University of Hertfordshire Students, 2020/2



Source: University of Hertfordshire, 2022. Note: LIA = Local Impact Area.

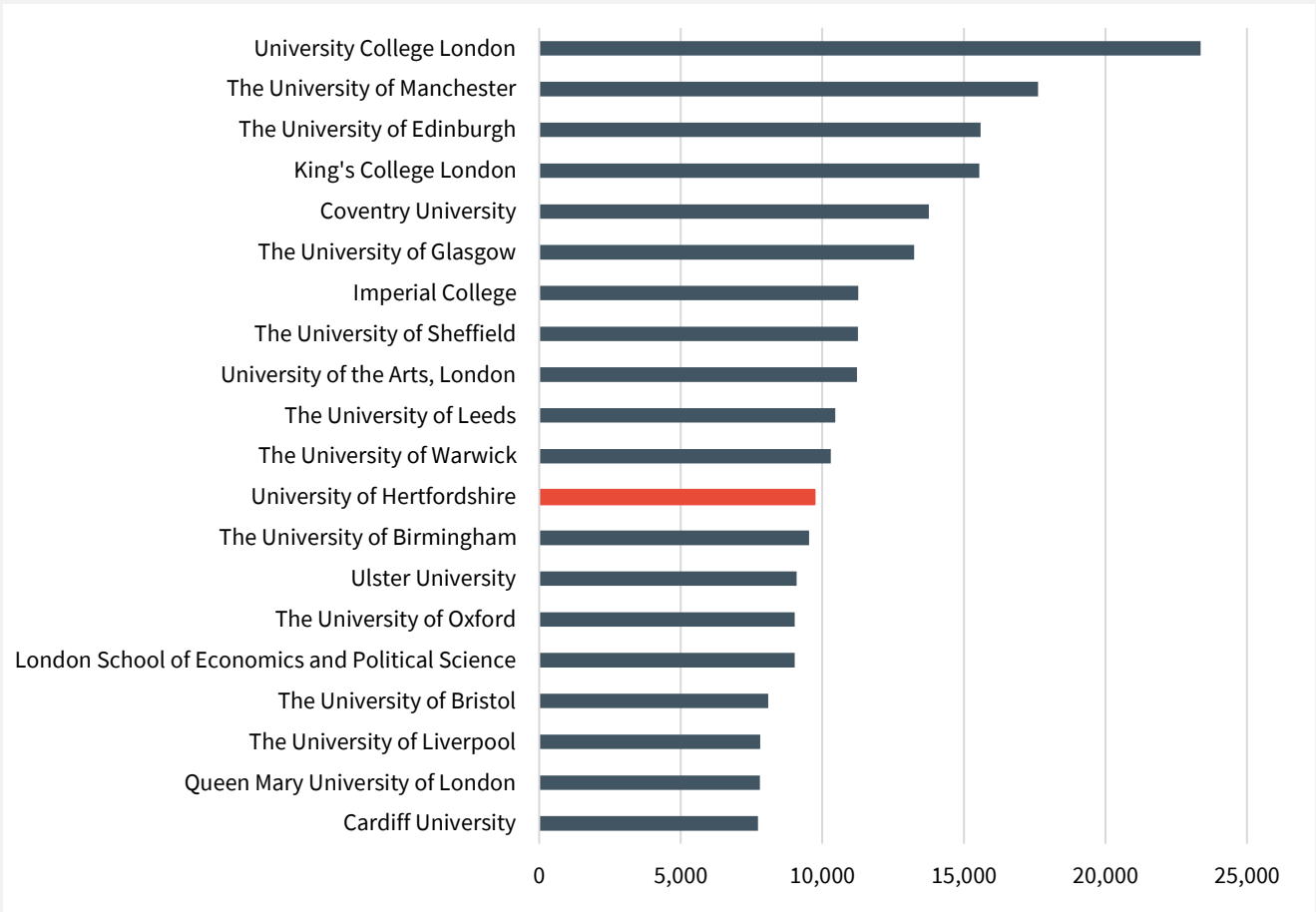
- 3.20 In addition, the University of Hertfordshire has the **12<sup>th</sup> largest international student population (9,700)<sup>18,19</sup> of all UK universities**, and the largest of any higher education institution in the East of England. This makes it one of the largest exporters of higher education in the country, especially in its region. To put this in perspective, the University has more international students than the University of Oxford and the London School of Economics. Total tuition fees from international students amounted to £67m in 2020/21<sup>20</sup>.
- 3.21 Only 25% of the University's undergraduate students are international. The **majority (75%) of international students** at the University of Hertfordshire **are enrolled in taught postgraduate degrees**, pursuing research that has important, real-world benefits and impact. Using their culturally unique experiences, they often develop research topics that would otherwise have been left unexplored. Nearly half of the University's international students are from India; Nigeria and Pakistan are the next two highest countries of origin.

<sup>18</sup> Student numbers by HE Provider and subject of study 2020/21, HESA

<sup>19</sup> In 2021/22, this has grown to 13,240. That is, just over 40% of the University's student population.

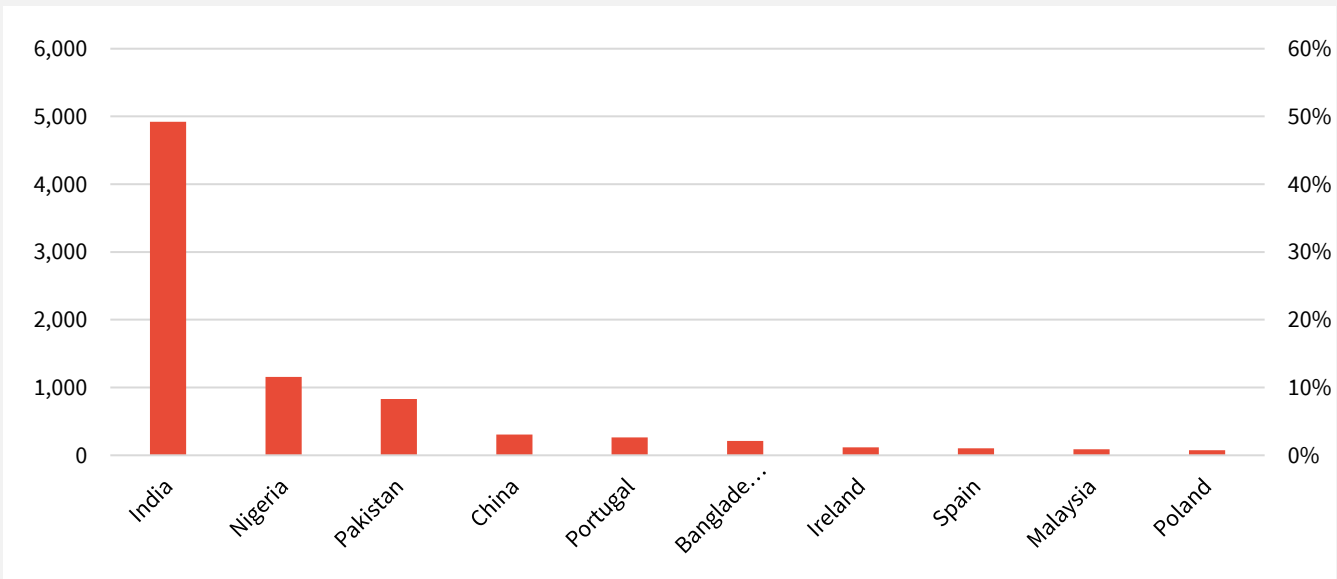
<sup>20</sup> In 2021/22, this had grown to £113m.

Figure 3.7 Top 20 Universities by international student population



Source: HESA, HE student enrolments by domicile and region of HE provider, 2022

Figure 3.8 Country of origin of University of Hertfordshire international students, 2020/21



Source: HESA, HE student enrolments by domicile and region of HE provider, 2022



#### **CASE STUDY: Vignesh Velmurugan, Physics, Engineering and Computer Science PhD student**

After completing his bachelor's degree in his home city of Chennai, India, Vignesh decided to pursue an ERASMUS+ funded Masters programme in Europe, studying in both France and Poland. He then applied to join the University of Hertfordshire on a PhD studentship to begin research in medical robotics under Dr Farshid Amirabdollahian, who is internationally regarded for his research on assistive robotics and human-robot interaction. Vignesh's work today focuses on designing and developing the WiGlove, a smart, home-based hand and wrist rehabilitation device for stroke survivors that has so far received overwhelmingly positive feedback. He says: "It's been brilliant to work with Dr Amirabdollahian, and the WiGlove project is going extremely well and already showing the potential to have significant real-world impact. It's very exciting."

3.22 The University conducted a panel survey about the part-time work patterns of its students in February 2023. 64 of the 82 survey participants who engaged in part-time work were international students. The survey showed that international students:

- typically indicated that they work 11-20 hours per week (20 hours being the maximum allowed as per UKVI visa requirements<sup>21</sup>) in sectors such as hospitality (32% of international student respondents), industrial and warehouse sectors (25%) and social care (14%)
- most (81%) international student respondents work outside Hatfield, in other areas of Hertfordshire (e.g. Stevenage, Welwyn Garden City, Watford) but also in neighbouring areas, such as Bedfordshire and London
- three fifths (60%) of international student respondents indicated that they would be interested in doing more work if they were able to. The majority (87%) of international student respondents suggested that government policy is the factor restricting the numbers of hours they work

3.23 These findings highlight the labour contribution of international students in sectors that are experiencing labour shortages, both in Hertfordshire and in neighbouring areas. The technical appendices consider in more depth the findings of the survey.

<sup>21</sup> According to UK immigration rules, students sponsored by a higher education provider with a track record of compliance can work up to 20 hours a week during term time, with full-time employment permitted outside of term-time: [Immigration Rules - Immigration Rules: Appendix Student - Guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/immigration-rules-immigration-rules-appendix-student-guidance)



- 3.24 More broadly, around 4,200 students are studying for University of Hertfordshire qualifications overseas through academic collaborations with 17 institutions in 10 countries, including Trinidad, Kenya, Indonesia, China, Malaysia, Singapore, Europe, Pakistan, Egypt and Sri Lanka. As such, over the years, the University has built a truly global network of 270,000 alumni.
- 3.25 Students make a sizeable contribution to Hertfordshire's economy as they bring extra expenditure into the area. By drawing on the National Student Income and Expenditure Survey<sup>22</sup>, which provides data on the number of students in the UK and their expenditure patterns, we are able to estimate students' expenditure while studying at the University. In turn, the consequent economic impacts within direct suppliers and through multiplier effects can be estimated.
- 3.26 In total, University of Hertfordshire students' expenditure supports an estimated:
- **£85m GVA and 2,680 FTE jobs** in the Hertfordshire economy
  - **£170m GVA and 4,820 FTE jobs** in the East of England economy
  - **£360m GVA and 6,150 FTE jobs** in the wider UK economy
- 3.27 A significant portion of this impact is driven by students who moved into Hertfordshire for their studies, thereby bringing new and additional expenditure to the area. The expenditure of full-time students from Hertfordshire supported £20m GVA and 165 FTE jobs in the county. The expenditure of full-time students from outside Hertfordshire supported £50m GVA and 1,540 FTE jobs locally, corresponding to 59% of GVA and 57% of FTE jobs supported across the county.
- 3.28 Moreover, the University attracts a significant body of international students who might not have otherwise chosen to study in the UK. As such, the day-to-day spending of international students creates economic impacts that might not have otherwise happened both at the level of Hertfordshire and the UK as a whole. International full-time students generated around £95m GVA and 1,650 FTE jobs nationally, thereby accounting for 26% of GVA and 27% of FTE jobs supported across the UK by the expenditure of University of Hertfordshire students.

**Table 3.1** Economic impact of University of Hertfordshire on-campus students' expenditure, 2020/21 (GVA in £ million, 2020/21 prices)

	Impact of full-time students				Impact of part time students		Total	
	From outside impact area		From inside impact area					
	GVA	FTE	GVA	FTE	GVA	FTE	GVA	FTE
Hertfordshire	50	1,540	20	700	15	430	85	2,680
UK	£95m	1,650	£165m	2,840	£95m	1,660	£360m	6,150

Note: Figures may not add up due to rounding. GVA (FTE) figures are rounded to the nearest multiple of five (ten).

<sup>22</sup> BIS (2013) Student Income and Expenditure Survey, 2014/15



#### **FACILITY SPOTLIGHT: Institute of Sport, de Havilland campus**

Representing a £7.5m development, including £3.9m of investment secured by Hertfordshire LEP, the new Institute of Sport provides world-class facilities for sports science research, psychology, training, teaching and learning. These facilities include a biomechanics laboratory, environment and control room, research laboratories and sports therapy teaching rooms and clinic. Embodying the University's commitment to pursuing skills, enterprise and innovation as part of the local economic growth, this development secured the University's position as a lead partner to the International Working Group (IWG) for Women in Sport, which will see Herts hosting the 9th IWG World Conference on Women & Sport 2026.

### **Total economic footprint**

- 3.29 In 2020/21, the University of Hertfordshire contributed £330m in GVA and 6,280 FTE jobs to Hertfordshire's economy through the sources of impact considered in this chapter. At a national level, its economic contribution amounted to £730m in GVA and 11,170 FTE jobs.

**Table 3.2** Summary economic footprint of University of Hertfordshire, 2020/21 (GVA in £m, 2021 prices)

	Hertfordshire		UK	
	FTEs	GVA	FTEs	GVA
Direct University activity	2,560	190	2,560	190
Supply chain expenditure effects	530	25	1,430	90
Staff expenditure effects	510	30	1,030	90
Student expenditure effects	2,680	85	6,150	360
<b>Total economic footprint</b>	<b>6,280</b>	<b>£330m</b>	<b>11,170</b>	<b>£730m</b>

Source: Hatch calculations, based on University of Hertfordshire data. Note: results are rounded so may not sum exactly to totals.





# **04: Driving entrepreneurship and business growth**

## Driving entrepreneurship and business growth

### Overview

Being **one of only 20 universities carrying University Enterprise Zone status**, the University of Hertfordshire has entrepreneurialism ingrained into its ethos. Its approach to entrepreneurship and business support provision is responsive to regional priorities and business needs. By integrating start-up, early-stage and business growth support as part of a continuum, it provides holistic support along every stage of the business development journey.

Cultivating the next generation of entrepreneurial talent is central to the University's approach - and as a result - , the number of **active University of Hertfordshire graduate start-ups more than tripled in the last five years**, growing by 274% between 2016-21 – **the highest growth rate in the East of England**. There were **262 University of Hertfordshire graduate start-ups** as of 2020/21 – the **third highest number** out of its HEI competitor group – that generated an estimated **£0.5 million in Gross Value Added**. The entrepreneurial spirit that the University instils in its students is also reflected in the fact that its graduates are **nearly four times more likely to be self-employed** post-graduation compared to their peers across other UK universities.

Since the launch of its Business Incubator in 2018, the University has **catered to the needs of more than 140 start-ups**. The delivery of the Incubator programme is now being supported by the incubation facilities at the landmark **£12m Enterprise Hub building**, aiming to facilitate a vibrant, entrepreneurial ecosystem of businesses, students and academics. The University supports businesses to scale up and grow through schemes like the Herts Sustainability Accelerator, which offered **intensive support worth £250k to 10 SMEs** that led them to develop new sustainable products and services.

The University strives to provide bespoke business support. Having provided **more than 740 hours of mentoring support** in 2021/22, it is well-practised in offering personalised support to businesses at any stage of their journey. Meanwhile, by combining traditional business support activities with specialist expertise from across the University, it has been recognised by partners like Innovate UK. The **£12.3 million of research and consultancy services** offered to businesses by the University in 2020/21 is the **highest of its HEI comparators**. Relatedly, **nearly three fifths (58%) of the 6,200 hours of business advice** provided in 2021/22 were **focused on innovation, research and development**, with an **additional 16% focused on skills and training**.

As such, it is not surprising that the University of Hertfordshire brand is well-known within the business community. A brand new survey of businesses supported by the University suggests that **almost three-quarters of businesses** that the University has worked with **approached the University directly to initiate specialised support**.

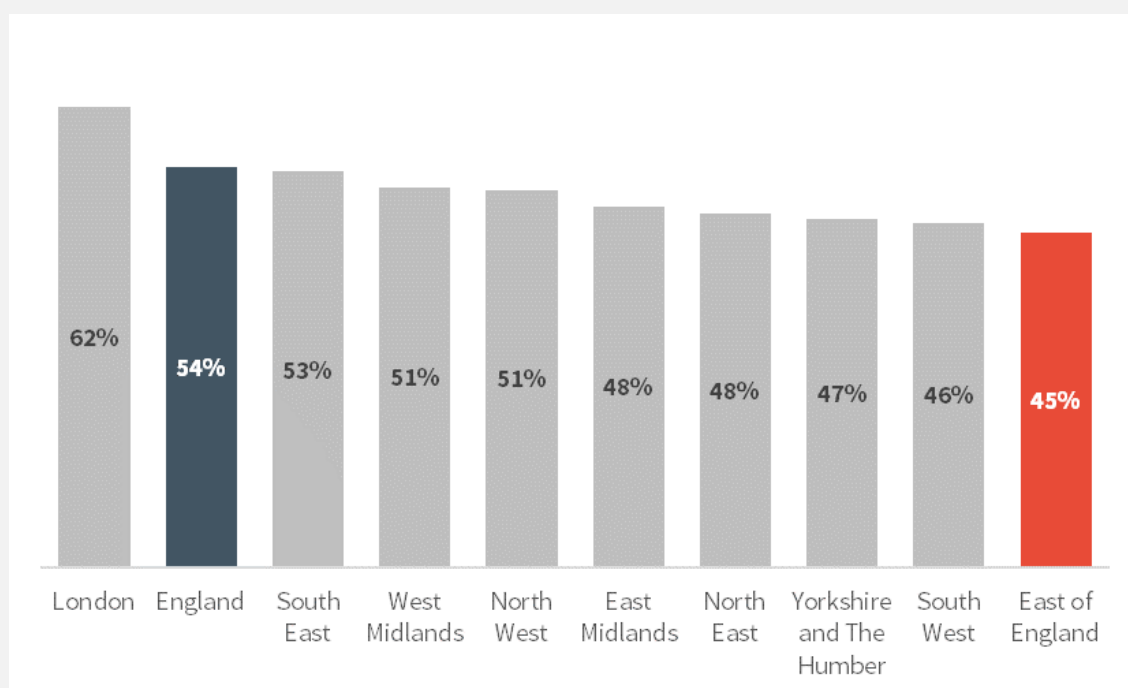
The University reaches companies across the UK through its business support activities. Half of the 632 businesses supported over 2019-22 were located in the East of England region, with the remaining half based in the rest of the UK. We estimate that the University's support for business between 2019 and 2022 will generate **£40m in GVA and 830 new FTE jobs**.

## Why is it important?

### The productivity challenge

- 4.1 The UK has a well-documented productivity challenge. Its productivity lags behind G7 comparator countries by around 13%, and productivity growth has slowed since the financial crisis.
- 4.2 The UK government has recognised this challenge in a range of policy initiatives, including the Industrial Strategy, the Plan for Growth and most recently in the Levelling Up White Paper. The Levelling Up White Paper of 2021 put raising productivity as a central mission for the government, with a target to raise pay, employment and productivity in every area of the UK by 2030.<sup>23</sup>
- 4.3 Although the East of England enjoys relatively high levels of productivity, productivity growth has been slower than in other UK regions. Since 2002, productivity growth in the East of England has been the slowest of all UK regions at 45%, compared to 54% nationally.

**Figure 4.1 GVA per Job Filled Growth (2002-2020)**



Source: ONS, 2022

- 4.4 Hertfordshire's economy is more productive than the national average, ranking 5<sup>th</sup> highest among Local Enterprise Partnership (LEP) areas in terms of GVA per filled job. However, its productivity differential has closed since 2010, suggesting that Hertfordshire has lost its competitive advantage.<sup>24</sup> Strong jobs and population growth has not translated into the same level of economic growth. Focusing on the 2008-20 period, Hertfordshire experienced below

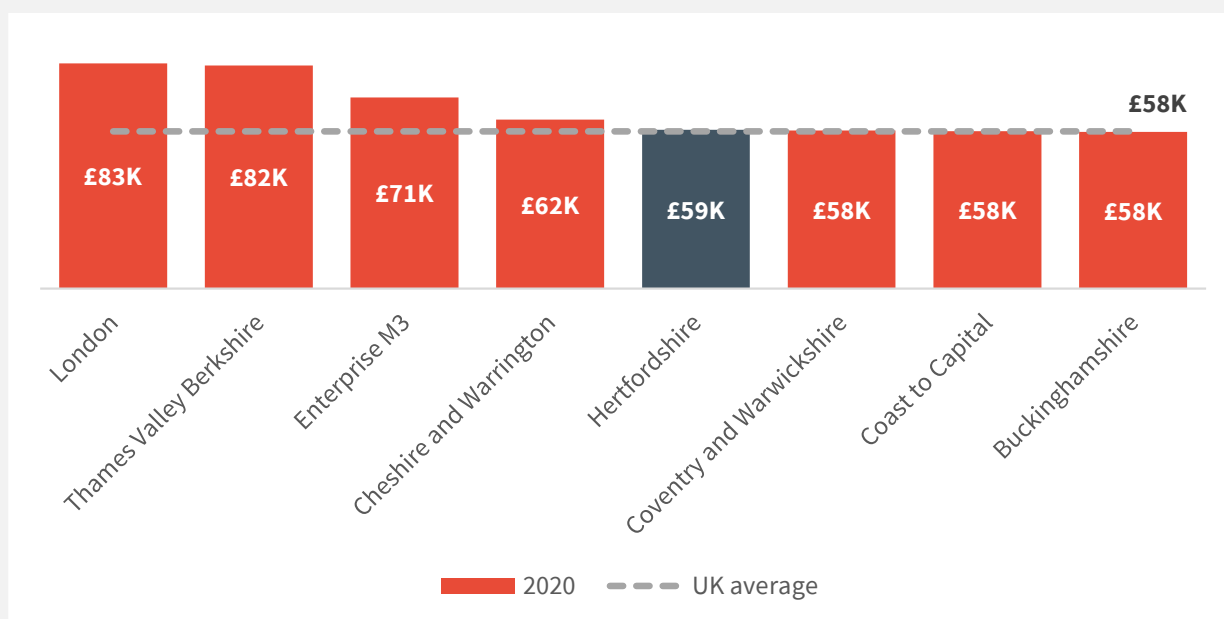
<sup>23</sup> HM Government, Levelling Up White Paper, 2022

<sup>24</sup> Hertfordshire LEP, Skills and Labour Market Review, 2020



average growth in productivity (17%) compared to both the wider East of England and national average (18% and 23%).

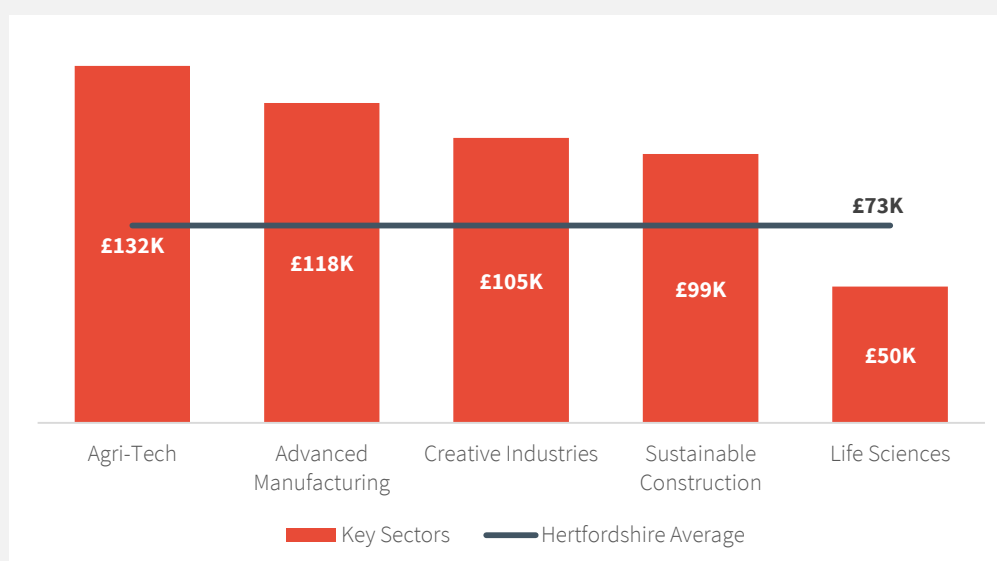
**Figure 4.2 GVA per filled job by top 10 performing LEPs (2020)**



Source: ONS, 2022

- 4.5 Recognising this challenge, the LEP has prioritised a number of high productivity sectors for growth, including life sciences, agri-tech, advanced manufacturing, sustainable construction and the creative industries. Growing these key sectors and continuing their contribution to

**Figure 4.3 GVA per FTE by key sector in Hertfordshire (2020)**



Source: ONS, Gross Value Added (balanced) by Industry, 2022; Business Register and Employment Survey, 2022

Hertfordshire will help improve productivity and economic performance in the county.

### Enterprise and entrepreneurship

- 4.6 Attracting entrepreneurial talent with the right knowledge, skills and experience can act as a catalyst for productivity and economic growth.<sup>25</sup> National policy recognises the importance of enterprise and entrepreneurship. For example, the Levelling Up White Paper of 2021 stated that:
- “A vibrant, high-wage, high-skill economy requires above all unleashing private investment, encouraging enterprise and supporting a dynamic business sector.”*
- 4.7 National initiatives to support this include launching Help to Grow, which aims to support 100,000 SMEs to acquire skills and leadership to boost productivity, secure investment and grow their business.
- 4.8 At a county level, Hertfordshire has a strong entrepreneurial ecosystem, evident in its high business density and self-employment rate (14% versus 13% nationally).<sup>26</sup> The number of active businesses has continued to grow in Hertfordshire LEP over the last five years. Since 2017, the number of business incorporations<sup>27</sup> per annum has increased by 81%.
- 4.9 However, the Local Enterprise Partnership and other partners have highlighted a number of challenges and opportunities, including a forecast decline in self-employment<sup>28</sup> and lack of appropriate business space<sup>29</sup>. While Hertfordshire is home to a substantial number of small businesses, relatively few grow to medium size and beyond.

### The University's approach

- 4.10 The University recognises the contribution that its enterprise and business support activities can make to Hertfordshire's wider place-making activities and national priorities. As a member of the Hertfordshire LEP's Enterprise and Innovation Board, the University played an important role in the development of the LEP's enterprise and innovation strategy.
- 4.11 The University's own Enterprise Strategy, covering 2020-25, articulates a cross-institutional knowledge exchange approach to achieving the enterprise pillar of the University's Strategic Plan. The four knowledge exchange clusters identified – Health & Care, Science, Medicine & Technology, Advanced Manufacturing & Materials and Screen Arts – are closely aligned to Hertfordshire's sectoral priorities.
- 4.12 The University has developed a bespoke offer that is designed to address the needs of priority sectors in the region and beyond, reflecting its role as one of only 20 UK universities to be awarded University Enterprise Zone (UEZ) status.

<sup>25</sup> HM Government, Innovation Strategy, 2021

<sup>26</sup> ONS, Annual Population Survey, 2022

<sup>27</sup> Incorporation is the process by which a new or existing business registers as a limited company ([Companies House, 2022](#)).

<sup>28</sup> Forecasts by Working Futures, on behalf of Hertfordshire LEP, estimate that this decline will continue over the next decade.

<sup>29</sup> Forecasts by Working Futures, on behalf of Hertfordshire LEP, estimate that this decline will continue over the next decade.

- 4.13 It is committed to supporting aspiring entrepreneurs, start-ups and scale-up businesses to innovate and achieve sustainable growth by providing access to the right expertise, facilities and entrepreneurial networks, as reflected by the University's Strategic Plan<sup>30</sup>.
- 4.14 The University's principles of being proactive, collaborative, multi-disciplinary and impact-driven set its offer apart. The remainder of this section summarises the University's support offer and key achievements, and estimates the economic impacts of this support. The estimation of the economic impact of the support has been facilitated by a new survey of beneficiary businesses, carried out between September and November 2022. The survey also provided richer insights on the experience of businesses currently engaging with the University.

### **A University Enterprise Zone**

- 4.15 Reflecting its status as an institution with enterprise at its heart, the University was one of only 20 universities to be awarded University Enterprise Zone (UEZ) status in 2019<sup>31</sup>. UEZs are specific geographical sites where universities and businesses work together to increase local growth and innovation.
- 4.16 The University received £1.1m of investment through the UEZ programme, which was funded by the Department for Business, Energy and Industrial Strategy and Research England. This was used to support 127 businesses, mainly through early-stage R&D support, and to fund capital investment e.g. the purchase of specialist equipment.
- 4.17 The UEZ status will remain an integral part of how the University perceives itself, even after the formal conclusion of the programme. Helping businesses access support services that meet their needs is a continuing priority.

### **A holistic approach to business support provision**

- 4.18 The University strives to provide bespoke and multi-faceted business support by bringing together expertise from across the institution. This can mean drawing on the insights of its talent-and-workforce development specialists, reaching out to its multi-disciplinary team of academics to facilitate access to research expertise, or collaborating with its wide network of partners.
- 4.19 The Enterprise and Business Development team's industry specialists are experienced in providing consultancy support, and in connecting businesses to the right partnerships and opportunities. This can include matching businesses to the University's academics, who can provide expert consultancy, or facilitating access to the University's state-of-the-art-facilities and specialist labs equipment, from laser cutters and 3D printers to drones and microscopes.

<sup>30</sup> University of Hertfordshire, Strategic Plan, 2020-2025

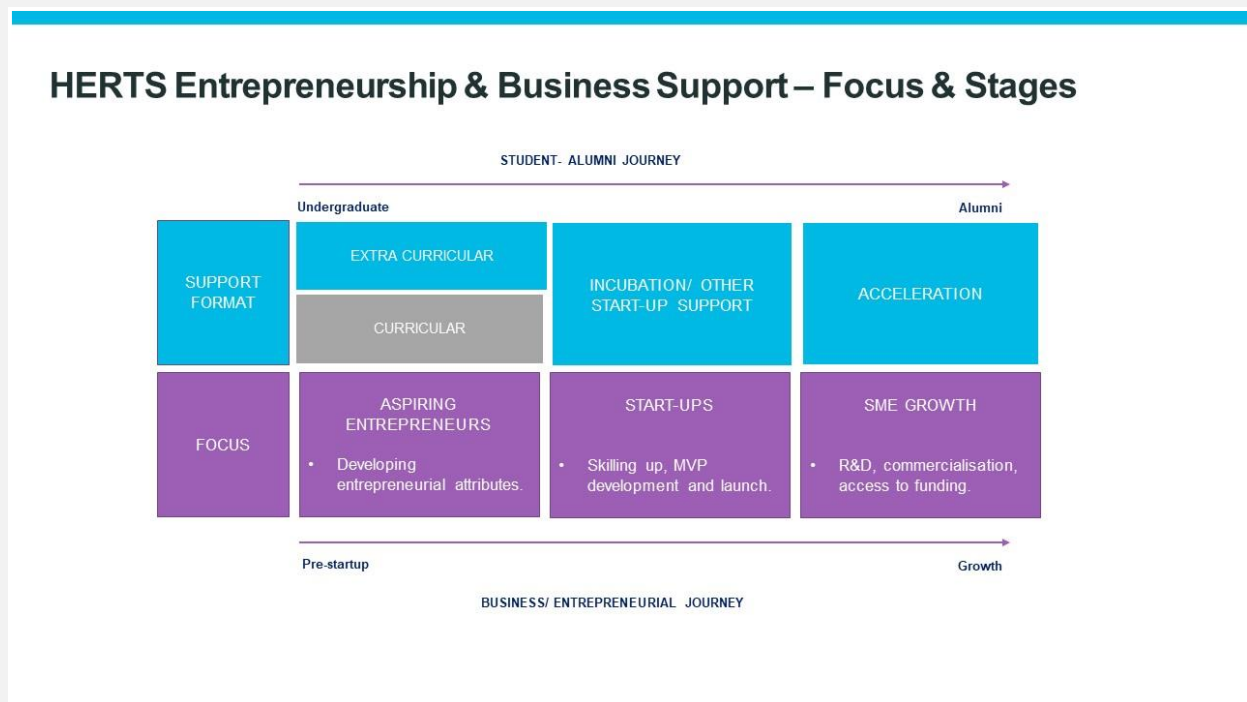
<sup>31</sup> [Powering Potential, University of Hertfordshire](#)

- 4.20 The University's ability to combine traditional business support with specialist expertise has been recognised by its partners. For example, Exemplas – a wholly-owned company operating within the University of Hertfordshire Group – is one of the 21 partners delivering the Innovate UK EDGE programme, which supports innovation-driven businesses to grow at pace.
- 4.21 The University's approach of viewing entrepreneurship and business growth support as part of a continuum empowers entrepreneurs to navigate the different stages of the business lifecycle, in line with Hertfordshire LEP's priorities.

**“The University of Hertfordshire plays a hugely important role in helping to drive our county forwards. They are working on some really important topics - fostering the ideas, innovations and solutions to the challenges Hertfordshire faces both now and in the future - while at the same time giving vital skills to local young people to ensure that they are equipped to be leaders in delivering on those ideas. I have visited the University a number of times and have a highly productive relationship with the Vice Chancellor and senior leadership – working together to deliver real results to improve our county, the East of England and beyond.”**

Bim Afolami, Hertfordshire MP

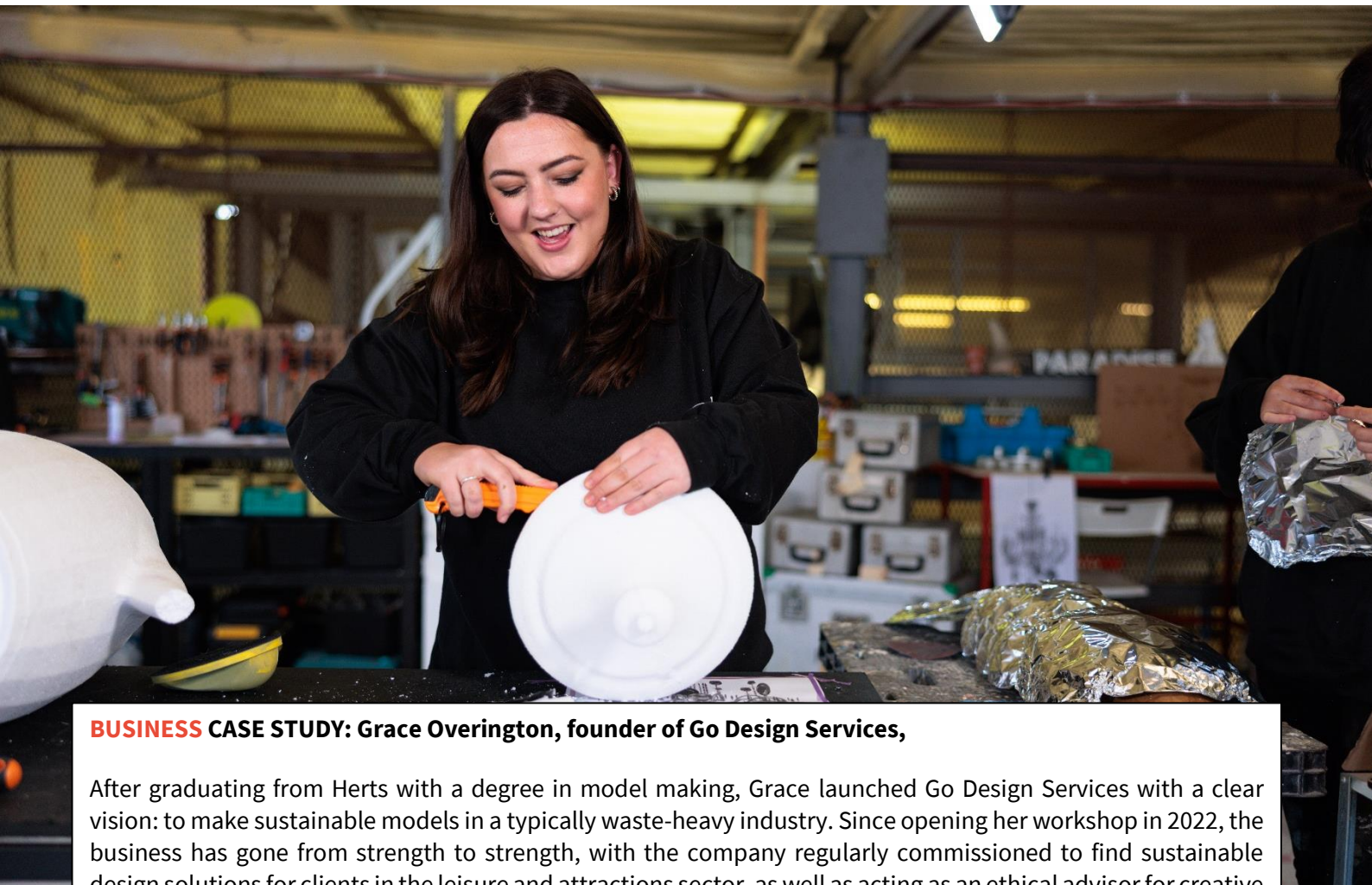
**Figure 4.4 Entrepreneurship and Business Support**



Source: University of Hertfordshire, 2022

### Cultivating the next generation of entrepreneurs

- 4.22 The University strives to instil an entrepreneurial mindset within its students through its curriculum, but also through co-curricular and extra-curricular activities. During the 2021-22 school year, **585 students/graduates registered for extra-curricular entrepreneurship sessions**, ranging from start-up bootcamps and funding competitions to skills development workshops and webinars focused on commercial and entrepreneurial skills. During the same period, **158 students/graduates who were looking to set up their own businesses were supported through one-to-one mentoring sessions with the University's Entrepreneurship Advisors.**



#### **BUSINESS CASE STUDY: Grace Overington, founder of Go Design Services,**

After graduating from Herts with a degree in model making, Grace launched Go Design Services with a clear vision: to make sustainable models in a typically waste-heavy industry. Since opening her workshop in 2022, the business has gone from strength to strength, with the company regularly commissioned to find sustainable design solutions for clients in the leisure and attractions sector, as well as acting as an ethical advisor for creative artists. It also now employs a talented team of fellow Herts Creative Arts graduates. Grace says: “Running a start-up isn’t plain sailing, and I’ve received invaluable support from the University’s Accelerator programme from the beginning. Access to the University’s experts in sustainable design and a business mentor has also helped with my business development plans and brand strategy. It has allowed me to develop our innovative sustainable model-making technique and has given the company high credibility.”



- 4.23 In addition to supporting young entrepreneurial talent among its student cohort, the University works with local partners to support young entrepreneurs across the wider Hertfordshire area. The Watford Young Entrepreneurs Programme has benefitted 145 young entrepreneurs through the two cohorts completed to date, with a third cohort about to embark on the programme.

#### **PROGRAMME SPOTLIGHT: Watford Young Entrepreneurs Programme**

The Watford Young Entrepreneurs Programme (WYEP) is a programme designed and delivered by the University of Hertfordshire, in partnership with Watford Borough Council. It offers free, expert and tailored advice, group training and grant funding to young entrepreneurs, and those interested in becoming entrepreneurs, living in Watford and aged 18-35 years old.

Running two cohorts between November 2021-October 2022 that sought to engage a diverse pool of candidates, the programme provided £97k worth of non-financial support as well as £98k of in-grant funding to 145 young entrepreneurs – twice the initial target envisioned. More than half (52%) of the participants came from an ethnic minority background; 46% were female and a third (33%) of participants were unemployed at the time of registration.

The programme resulted in 21 new businesses being launched and over 15 new products and services being brought to market. In addition to up-skilling entrepreneurs and supporting business creation, it contributed to the formation of business networks that will continue to grow and contribute towards Watford's entrepreneurial and innovation ecosystem.

#### **Start-up and early-stage support through the Incubator**

- 4.24 More than 140 start-ups were supported through the Business **Incubator programme**, a part-ERDF-funded scheme established in 2018 that supports entrepreneurs and start-ups to innovate and grow by:

- facilitating a network of peers through regular meetings with other like-minded businesses
- offering access to a wide range of academic expertise, opportunities to seminars, networking events and mentoring sessions, and opportunities to engage with students
- providing access to a wide range of facilities including flexible and equipped working spaces across both campuses, such as the designated incubator co-working space in the new Enterprise Hub building<sup>32</sup>

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**“The University of Hertfordshire’s Business Incubator has offered me vital support. It is an open forum to share the highs and lows of running a business, and to seek help on real problems. The clear, unbiased feedback is structured in the right way for us to implement and start to reap the rewards instantly.”**

Richard Jackson,  
Managing Director, Virtronix

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<sup>32</sup> [Business Incubation, University of Hertfordshire](#)

- 4.25 The flagship Enterprise Hub building reinforces the entrepreneurial vision embodied by the University and its status as a UEZ, acting as an anchor for its range of support activities.
- 4.26 Located on the de Havilland campus, this £12m<sup>33</sup> building – part-funded by Hertfordshire LEP – combines business incubation, office space, teaching and social areas to bring together students, academics and the business community. It is a physical demonstration of the University’s efforts to provide business access to vibrant and innovative entrepreneurial ecosystems.
- 4.27 Its designated, modern and fully equipped co-working space for business incubator members supports the University’s all-campus Business Incubator scheme. The Hub also offers office space that can house seven businesses, while its teaching facilities can accommodate the University’s MBA and expanding degree apprenticeship offer.

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**“The University’s subsidiary Exemplas fulfils a vital role in supporting Innovate UK’s ambition to grow and scale up innovative businesses in the UK. Their expertise, collaborative spirit, and delivery on the Innovate UK Edge service has played no small part in its success both regionally and nationally.”**

Max Adam, Deputy Director  
Business Growth UK

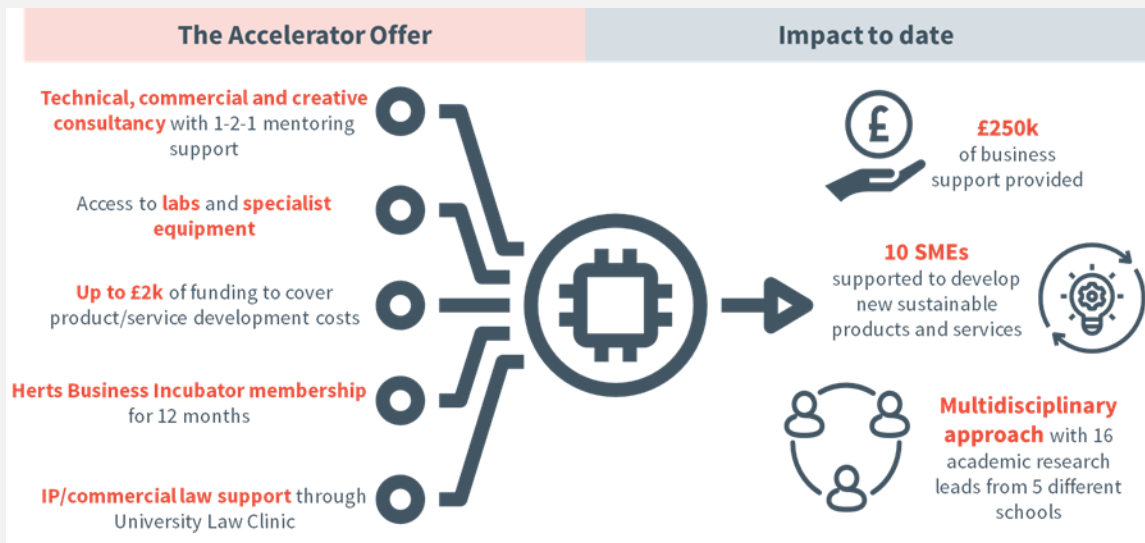
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#### **Helping businesses scale-up through the Accelerator**

- 4.28 The **Herts Sustainability Accelerator** is an initiative in the government’s Build Back Better programme funded with Community Renewal Fund investment and delivered by the University in partnership with the Hertfordshire Growth Hub.
- 4.29 The Accelerator aims to support small businesses with scale-up potential to develop new and market-ready sustainable products, services and technologies. As such, it supports the research, enterprise and global engagement ambitions of the University’s Climate Change and Sustainability vision and ambition.
- 4.30 The Accelerator offers a tailored package of intensive support that can include guidance from up to five expert academics and/or technical consultants. The programme launched in March 2022 and closed in September 2022. Ten SME beneficiaries were selected out of 23 qualifying applications.

<sup>33</sup> [University of Hertfordshire launches new Enterprise Hub in Hatfield, Hertfordshire LEP, 2020](#)

Figure 4.5 Herts Sustainability Accelerator



Source: University of Hertfordshire, 2022

Providing mentoring to businesses throughout their development

- 4.31 **One-to-one business mentoring and consultancy** is an integral part of the University’s offer. In 2021/22, more than **740 hours of business mentoring support were offered to SMEs**.
- 4.32 The University swiftly deployed its resources and experience in providing one-to-one mentoring support during the pandemic. Working with Hertfordshire LEP, it established the Volunteer Business Support Service scheme, providing a total of **1,496 hours of one-to-one business mentoring support** to Hertfordshire SMEs in that time.

**“Thanks to the championing from my Herts business mentor, I now promote myself and my business, ELSA, with true conviction and belief.”**

Jane Shipley, Founder,  
ELSA Next Generation

**PROGRAMME SPOTLIGHT: Volunteer Business Support Service**

The pandemic and the EU exit transition posed a unique set of dual challenges for UK businesses. As such, there was a huge increase in demand from businesses seeking support. The Hertfordshire Growth Hub, powered by the Hertfordshire LEP in partnership with the University, launched the Volunteer Business Support Scheme in June 2020, a free and confidential 1-2-1 mentoring programme. The scheme enlisted and trained business leaders as volunteer mentors so that they could effectively support SMEs. The scheme was extended until November 2021 because of its success<sup>34</sup>.

<sup>34</sup> [Volunteer with us, University of Hertfordshire](#)



**BUSINESS CASE STUDY: @BambuuBrush, eco-friendly, plastic-free product manufacturer**

It was in 2019, after years of travelling and seeing first-hand the impact of plastic pollution on the planet, that Hertfordshire-based couple Tommie Eaton and Rebecca Dudbridge decided to do something about it. That something was launching @BambuuBrush, a company specialising in eco-friendly “purposeful plastic-free products”, ranging from their original and namesake product, the bamboo toothbrush, to cotton buds and mugs. They also had the mission of educating, inspiring and empowering people to make simple changes away from low-grade plastic. It’s been a huge success, with the company selling over five million bamboo toothbrushes alone, further expanding their product range, and collaborating with a number of high-profile brands including Virgin Atlantic and Channel 4.

Supported by the University of Hertfordshire through the Herts Sustainability Accelerator, they’re now working to deliver educational workshops and a new consultancy service for other businesses to improve their awareness and practices around plastic waste. “The Accelerator was an incredible, eye-opening experience that allowed us to think ahead into the future instead of being stuck in the weeds of the business, which most founders of SMEs are,” explained Tommie and Rebecca. “We were able to draw upon experts in specific fields to help us grow and develop a new avenue for @BambuuBrush and are now looking into a funding round to help us take the next steps in this project with the University.”

**The outcomes of entrepreneurship and business support**

- 4.33 Higher Education Business and Community Interaction (HE-BCI) survey data on the number of start-ups launched by recent graduates (within two years) highlights how effective the University has been in supporting students to realise their business ideas:
- over the last five years, the University of Hertfordshire has seen the highest growth in active graduate start-ups of all universities in the East of England, with **the number of active graduates tripling** between 2016-2021
  - in 2020/21, **the University had 262 active graduate start-ups**, the third highest out of its HEI comparator group<sup>35</sup>
  - graduate outcomes survey data for 2019/20 indicates that **19% were self-employed**<sup>36</sup>, **compared to an average across all UK graduates of 5%**. Of these, 10% were located in the East of England, of which 9% were in Hertfordshire. 56% were located elsewhere in the UK, while 5% were located outside the UK

**Table 4.1** Active graduate start-ups by East of England universities, 2016-2021

<sup>35</sup> Including Anglia Ruskin University; Brunel University London; City, University of London; Kingston University; London South Bank University; Middlesex University; The University of Greenwich; University of Bedfordshire.

<sup>36</sup> The self-employment rate is an approximate estimate based on Employment and Self-Employment data collected by the University for the 2019/20 Graduate Outcomes survey. It is calculated as the proportion of respondents that specified a ‘Self employment/own business Job Title’.



	Number of active graduate start-ups		Percentage (%) growth
	2016/17	2020/21	
University of Hertfordshire	70	262	274%
The University of Essex	28	91	225%
The University of Cambridge	37	114	208%
Norwich University of the Arts	98	291	197%
University of Bedfordshire	528	403	-24%
The University of East Anglia	116	72	-38%
Anglia Ruskin University	0	0	-
Cranfield University	0	0	-
University Centre Peterborough*	n/a	0	-
University of Suffolk	0	0	-
Writtle University College	0	0	-

Source: Higher Education Business and Community Interaction Survey, HESA, 2020/21. \* No data were recorded for the University Centre Peterborough in 2016.

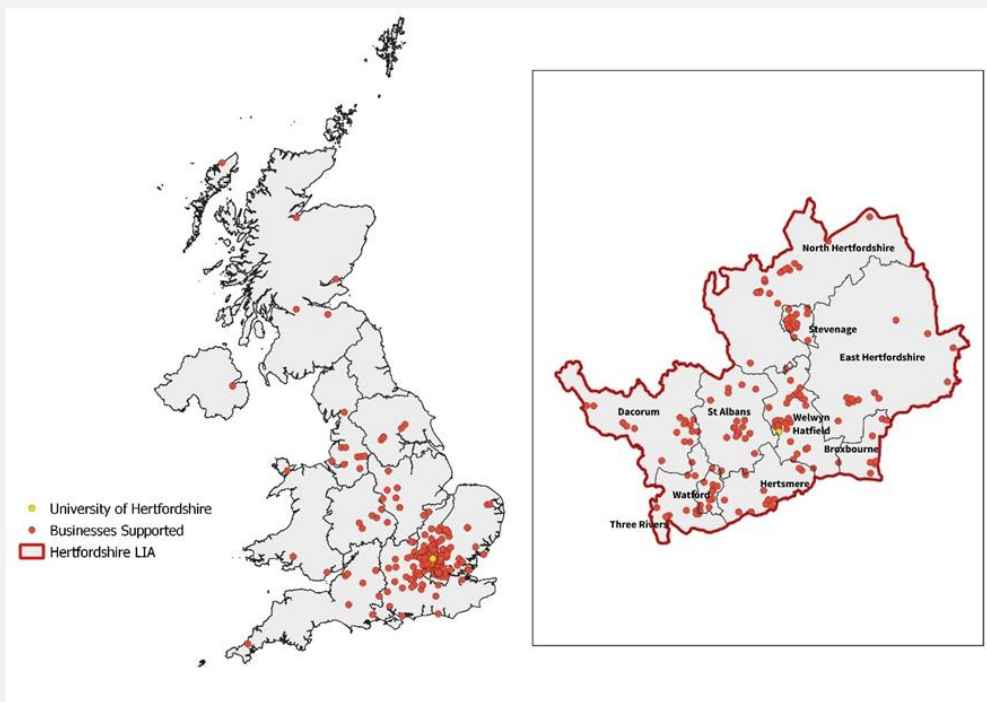
- 4.34 The University's business support services are well-known among the business community. The brand new survey of businesses suggests that 74% of respondents approached the University on their own accord for support.
- 4.35 In 2021/22, the University of Hertfordshire delivered **6,200 hours of business advice**<sup>37</sup>. The majority of this advice was focused on innovation, research and development (58%) and skills and training (16%). The University of Hertfordshire has delivered **£12.3m worth of research and consultancy services** to businesses and organisations in 2020-21, the highest of its HEI comparators<sup>38</sup>.
- 4.36 Between 2019-2022, the University supported 632 businesses across the UK. Of those, 50% were located in Hertfordshire, and 57% were in the East of England<sup>39</sup>. This captures the University's commitment to supporting business growth and entrepreneurship both locally and nationally.

<sup>37</sup> University of Hertfordshire, Active Account Interventions, 2022

<sup>38</sup> Higher Education Business and Community Interaction Survey, 2021. Comparators include University of Greenwich, City University of London, University of Bedfordshire, Brunel University London, London South Bank, Middlesex University, Anglia Ruskin University and Kingston University.

<sup>39</sup> University of Hertfordshire, Opportunities Account, 2019-2022

**Figure 4.6 Business support provided by the University of Hertfordshire, 2019-2022**



Source: University of Hertfordshire, 2022

- 4.37 The University supports both small and large companies. Between 2019-2022, nearly half (46%) of the support provided was to micro (34%) and SME companies (12%) with a further 11% provided to large companies. Over two-thirds of the support provided to large companies included degree apprenticeships, contract research and consultancy work.
- 4.38 The University supports businesses across a range of sectors. In particular, support has been delivered to businesses operating across the priority sectors for Hertfordshire LEP, including computer programming (6%), R&D (5%), advanced manufacturing and engineering (4%), and life sciences (3%).

**The economic impacts of entrepreneurship and business support**

- 4.39 The 262 active University of Hertfordshire graduate start-ups in 2020/21 are estimated to have created 542 direct and indirect FTE jobs and generated £0.94m in turnover<sup>40</sup>, which translates to a GVA impact of £0.5m (including multiplier effects).
- 4.40 To gather primary data on the economic impacts of the University’s business support activity, Hatch completed an online survey of all businesses that received support from the University in the past three years, carried out between September and November 2022. The survey questionnaire is provided in *Appendix C – Survey of Beneficiary Organisations*. This covered businesses that had been supported in a variety of ways, from starting a business through to short-term consultancy.

<sup>40</sup> Higher Education Business and Community Interaction Survey, 2021

- 4.41 11% of respondents sought support to start a business, with 38% looking to develop a new product or service, 30% receiving coaching or mentoring, 29% to access funding, and 23% to access cutting-edge technologies or research.

**“The University’s approach to supporting businesses is phenomenal and forward thinking. Their expertise and level of professionalism [...] have been crucial to initiate and secure funding opportunities.”**

Michael Samson, Founder, Omniolytics

- 4.42 Using the evidence gathered on business performance, it is estimated that the businesses receiving high-intensity support have generated £30m in net additional GVA and over 500 net additional FTE jobs to date. Over the next three years, the support is expected to have lasting impacts including £40m in GVA and 830 net additional jobs. Looking at the next 12 months in particular:

- 31% of businesses expect a change in turnover. Over four fifths (82%) expect a turnover increase of up to £100,000
- 24% of businesses expect a change in employment: on average, employment is expected to increase by 4 FTEs
- 26% of businesses expect a change in productivity, with 84% reporting a moderate to large improvement in productivity

- 4.43 *Appendix D – Economic Impact of Business Supported Methodology* details the estimation method.

**Table 4.2** GVA and employment impact of businesses engaged over 2019-22

		Impact to date	Expected Future Impacts	Total
GVA (£m)	Direct	25	5	35
	Indirect and induced	5	<5	10
	Total	30	10	40
Employment (FTEs)	Direct	480	240	710
	Indirect and induced	60	60	120
	Total	540	290	830

Source: Hatch analysis based on a survey of beneficiary businesses, 2022. Note: GVA figures rounded to the nearest five million. Employment figures rounded to the nearest 10. Figures may not add up due to rounding.

- 4.44 In addition, respondents experienced softer, intermediate benefits. For example, two-fifths reported increased confidence in enterprise and innovation after receiving the support.

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**“Our experience [with the University of Hertfordshire] has always been positive. It has supported us to become more productive, increase turnover and, through that, increase employment.”**

Eamonn Swanton, Managing Director, Heales Medical

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# 05: Talent- and-workforce development



## 05 Talent and workforce development

### Overview

The University's diverse pool of talent is increasingly recognised by employers. It is the **number one university for social mobility in the East of England**, and among the **top 20 universities for social mobility nationally**. **Over half of its students come from an ethnically diverse** background, so the University is known for making an active and welcome contribution towards employers' efforts to create a diverse workplace.

The University provides about **8,000 graduates every year with highly sought-after skills**, twice the average across East of England. The University also places great emphasis on work-based learning and on developing a curriculum that is vocationally relevant.

University of Hertfordshire students are supported to take their next steps after completing their studies. **Post-graduation, 93% of its 2019/20 undergraduate leavers went on to employment and further education within 15 months**, ranking the University in the top ten, relative to a group of 20 of its peers<sup>41</sup>.

The University is an important supplier of skills locally and regionally, with nearly a fifth (18%) of University of Hertfordshire graduates being employed in the East of England and 13% in Hertfordshire. Each annual cohort of graduates **boosts the supply of young graduate workers in Hertfordshire by 4%**.

University of Hertfordshire students go on to work in critically important sectors that make a significant economic and social contribution. Reflecting the University's expertise in healthcare-related subjects, **29% of graduates find employment in healthcare professions**, supporting the University's commitment to cultivating the next generation of NHS leadership.

To broaden access to education, the University works with the four further education colleges in the region, as well as industry partners, to offer a range of bespoke courses. This includes 12 apprenticeship programs that cater to the needs of high priority sectors, such as health and social care, construction, and digital technologies. **There were 805 active apprenticeships as of September 2022, while 236 apprenticeships were completed.**

There has been greater emphasis on the need to upskill and reskill the UK's workforce over recent years, which has been reflected in national policy. Continuing Professional Development (CPD) is an active priority area at the University of Hertfordshire, which delivered **19,500 learner days to individuals and businesses in 2020/21**, exceeding the median across East of England universities by 6,800 learners (or 53%). These CPD activities in 2020/21 delivered an estimated economic benefit of **£11 million**.

More broadly, as part of its effort to improve STEM education and leadership in primary schools, the University runs the Primary Science Quality Mark (PSQM). In 2021, **PSQM worked with 804 schools - almost half of which were in areas of high socioeconomic deprivation - and 13,000 teachers, thereby impacting 260,000 children.**

<sup>41</sup> Including UWE Bristol, University of Brighton, University of Portsmouth, Anglia Ruskin University, University of Essex, University of Northampton, King's College London, Nottingham Trent University, Kingston University, University of Greenwich, Coventry University, De Montford University, Birmingham City University, Brunel University London, Middlesex University, University of East London, University of Westminster, University of London, London South Bank University, University of Bedfordshire.



## Why is it important?

### The importance of supporting talent-and-workforce development

- 5.1 Human capital is one of the six “capitals” driving the government’s levelling up agenda<sup>42</sup>. Skills and education are central to improving a nation’s productivity as they enable individuals to perform more complex tasks and facilitate technological diffusion and innovation<sup>43</sup>.
- 5.2 Currently, talent development at higher technical levels falls short of employers’ needs across sectors in the UK, with only 4% of young people achieving a qualification at higher technical level by the age of 25<sup>44</sup>. The current supply of engineers, technicians and health and social care professionals is not enough to meet vital socioeconomic challenges, such as digitisation, the transition to a green economy, and meeting the needs of an ageing population.
- 5.3 The Autumn Statement 2022 re-iterates the government’s commitment to diversifying pathways into education (e.g. through apprenticeships) to respond to current talent-and-workforce development needs. It also highlights the importance of enabling continuous upskilling of the workforce. The introduction of the Lifelong Loan Entitlement from 2025 will provide adults with more flexible finance to study throughout their lives.
- 5.4 Co-operation between education providers and employers is key in tailoring the course mix and developing the training and infrastructure in a way that meets local needs, as recognised by The Skills for Jobs (2021) policy paper<sup>45</sup>.

### Talent-and-workforce development needs in Hertfordshire’s economy

- 5.5 Hertfordshire LEP’s Refreshed Strategic Economic Plan recognises talent-and-workforce development as a key foundation for growth, critical to the county’s long-term productivity performance<sup>46</sup>.
- 5.6 The county is an employment hub in the East of England, home to world-class creative media and advanced manufacturing organisations, but also life sciences industries and research capabilities that sit at the centre of the ‘Golden Research Triangle’ linking London, Oxford and Cambridge. The county employs 680,000 individuals, almost a quarter (23%) of the East of England total<sup>47</sup>, while 100,000 new jobs are planned by 2031<sup>48</sup>.
- 5.7 This brings a number of workforce development needs and opportunities, which the University plays a role in addressing, including:
  - **attracting and retaining talent:** although Hertfordshire benefits from its proximity to London, this also poses challenges, especially in terms of attracting and retaining talent. There is a net outflow of commuters to London, reflected in the fact that the earnings of those living in the county (£36k) are higher than those working in the area (£34k). That is,

<sup>42</sup> Levelling up the United Kingdom White Paper, Department for Levelling up, Housing and Communities, 2022

<sup>43</sup> Department for Business, Innovation and Skills, UK skills and productivity in an international context, 2015

<sup>44</sup> Department for Education, Skills for Jobs, 2021

<sup>45</sup> Department for Education, Skills for Jobs, 2021

<sup>46</sup> Perfectly Placed for Business: The refreshed Strategic Economic Plan: 2017-2030, Hertfordshire LEP, 2017

<sup>47</sup> Business Register and Employment Survey, ONS, 2021

<sup>48</sup> Hertfordshire Local Skills Report, Hertfordshire Local Enterprise Partnership, January 2022

Hertfordshire residents tend to be employed in high-paying positions outside of the county

- **skill shortage vacancies are reported at higher skill levels:** the number of job postings in Hertfordshire continues to grow year-on-year, but skill shortage vacancies are reported at higher skill levels. Of those employers with a skill shortage vacancy, 36% are at a higher skill level. Skill shortages are inhibiting business growth and deterring businesses from locating and investing in Hertfordshire, with more than 50% reporting that they have lost business to competitors (compared to 41% nationally)<sup>49</sup>
- **lower than national average take-up of apprenticeships:** although a high share of Hertfordshire residents progress to further education post-16, take-up of apprenticeships is slightly lower than nationally (2% vs 3%). However, apprenticeship provision across Hertfordshire employers has been rebounding and gaining traction among young people, with over 75% considering them a valued career pathway<sup>50</sup>
- **limited access to training, which risks widening skills gaps and inequalities in securing well-paid employment:** smaller businesses, which dominate 99% of Hertfordshire's base, are less likely to provide training and have reduced their investment in training since Covid-19. While support has been made available nationally and locally, employers find the skills and employment landscape complex and do not engage with the full breadth of support available<sup>51</sup>

## The University's approach

- 5.8 As an anchor institution, the University is uniquely positioned to respond to employers' current talent-and-workforce development challenges, but also inform the discussion on their future needs.
- 5.9 The University's industry-focused teaching approach is informed by its engagement with professional bodies, key employers and government, and directly responds to local, regional and national employment needs with its diverse pool of talent and sought-after skills. Through its range of bespoke courses, including its apprenticeship provision, the University strives to provide access to education through a range of pathways.
- 5.10 Students are supported to transition into employment through a range of activities, including mock assessment centres and real-world experiences, such as the University's pro bono, student-led law clinics. The University is also committed to upskilling and reskilling those who have already entered the workforce through its expanding and continued professional development courses.
- 5.11 The University's four clusters of excellence outlined in its Enterprise Strategy 2020-25 – Health & Care, Science, Medicines & Technology, Advanced Manufacturing & Materials and Screen Arts - are at the heart of all talent-and-workforce development activities, while digital, carbon literacy and leadership and management skills are recognised as being central in the modern workplace across sectors.

<sup>49</sup> Employer Skills Survey, 2019

<sup>50</sup> Hertfordshire Local Skills Report, Hertfordshire LEP, January 2022

<sup>51</sup> Ibid.



## The University is increasingly recognised among employers for its diverse student body

5.12 Socioeconomic diversity in higher education supports a student's academic and social growth<sup>52</sup>, in turn better preparing them for life in a diverse workforce. The University of Hertfordshire attracts a diverse student body, which demonstrates its commitment to supporting those from under-represented backgrounds into higher education:

- 68% of the University's students are from a widening access and participation background<sup>53</sup>
- 36% of the University's students reported being the first in their family to attend university<sup>54</sup>
- 26% of the University's students come from households with income below £25k<sup>55</sup>
- 66% of its students studying in the UK are Black, Asian and Minority Ethnic<sup>56</sup>, compared to nearly 27% nationally<sup>58</sup>
- 17% of University of Hertfordshire students have a disability declared<sup>59</sup>

### **PROGRAMME SPOTLIGHT: Black, Asian and Minority Ethnic Student Advocates**

Black, Asian and Minority Ethnic Student Advocates support and inspire students from Black, Asian and Minority Ethnic backgrounds and help the University to further its understanding of their experiences. Advocates are recruited for a minimum of one year, and the group aims to represent students from a wide variety of cultures and backgrounds.

Members of the scheme work within academic Schools of Study to challenge structural inequalities and assumptions, and help staff improve their inclusive practices. They also create opportunities for Black, Asian and Minority Ethnic students to voice their experiences and to benefit from targeted support.

Examples of their work in recent years include:

- leading the annual Black, Asian and Minority Ethnic careers event, which encompasses Q&A panels, employability sessions and motivational talks for over 300 students
- conducting focus groups to gather feedback from Black, Asian and Minority Ethnic students, to improve the University's understanding of their student experience and inform future activity
- working with Schools of Study to decolonise curricula

<sup>52</sup> Gurin, P., Dey, E. L., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review*, 72(3), 330–366.

<sup>53</sup> 2021-22 UH School and Profile Dashboard (HESA Student Returns), Home/EU UG only; UG Student Finance data 2022-23.

<sup>54</sup> UCAS

<sup>55</sup> 2021-22 UH School and Profile Dashboard (HESA Student Returns), Home/EU UG only; UG Student Finance data 2022-23.

<sup>56</sup> Strategic Report and Financial Statements 2021/22.

<sup>58</sup> HESA, 2023 (Please note Ethnicity data from HESA is only available for total UK domiciled students).

<sup>59</sup> 2021-22 UH School and Profile Dashboard (HESA Student Returns), Home/EU UG only; UG Student Finance data 2022-23.

- playing an active role in the University's Black, Asian and Minority Ethnic Student Success Working Group, which tackles the student awarding gap. This group won Advance HE's Collaborative Award for Teaching Excellence in 2021<sup>60</sup>

The Black, Asian and Minority Ethnic Student Advocates scheme has shifted the conversation on racial equality at the University, enhancing the partnerships between staff and students as they work towards shared goals.

5.13 The University of Hertfordshire is the number one university for social mobility in the East of England<sup>61</sup>, and ranks in the top 20 universities for social mobility nationally. When this ranking is broken down, the University of Hertfordshire attracts a greater proportion of students from deprived backgrounds, with its access rate exceeding the average for the East of England (10% versus 6%). Importantly, when assessed against the proportion of graduates who then also make it into the top 20% of income distribution, Hertfordshire has the highest mobility rate in the East of England (3% versus 1%).

5.14 The University actively nurtures diverse talent:

- the Black, Asian and Minority Ethnic Student Success Working group won the 2021 AdvanceHE Award for Teaching Excellence
- the University ranked 1<sup>st</sup> in the UK with 90% disabled student satisfaction, +18% on the global average (Postgraduate Research Experience Survey, 2021)<sup>62</sup>

**“The Black, Asian and Minority Ethnic Student Advocates have facilitated conversations about issues of race in a very constructive manner, enabling better understanding of student perspectives and lived experiences.”**

Cage Boons, alumnus and former Black, Asian and Minority Ethnic Student Advocate

5.15 The University is also engaged in supporting its diverse student community into employment, which in turn contributes towards widening participation in workplaces. University staff are members of the Diversity & Inclusion Task Group of the Institute of Student Employers and sit on the on the Equality, Diversity and Inclusion Advisory Group of the Association of Graduate Careers Advisory Services (AGCAS).

### Meeting the needs of the economy

5.16 The University is aware of the important role it plays in addressing the persistent talent-and-workforce development challenges that employers face regionally and nationally. As such, the course offer and core curriculum are designed to produce workforce-ready and employable graduates.

5.17 The programmes on offer align with the needs of key sectors as recognised by the four clusters of excellence in the University's Enterprise Strategy 2020-25 – Health & Care, Science, Medicines & Technology, Advanced Manufacturing & Materials and Screen Arts.

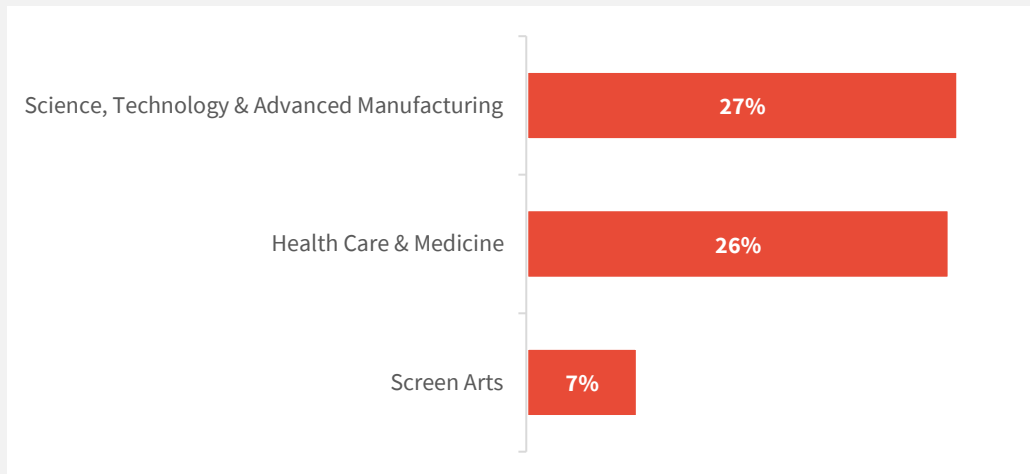
<sup>60</sup> Double award win for University of Hertfordshire from Advance HE, University of Hertfordshire, 5 August 2021

<sup>61</sup> The best university degrees for intergenerational mobility, Department for Education, 24 November 2021 [The best university degrees for intergenerational mobility - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/the-best-university-degrees-for-intergenerational-mobility)

<sup>62</sup> Our students and EDI, University of Hertfordshire

- 5.18 The University of Hertfordshire is helping address these needs as seen by the proportion of students enrolled in subjects that respond to these key sectors. This reflects the University's commitment to preparing its students for careers in areas of economic importance and providing the sector with the necessary skills and labour supply.

**Figure 5.1 Proportion of course enrolments by key sector**



Source: HESA, 2022

- 5.19 All schools have **industry panels** to ensure the curriculum responds to industry needs and professional accreditation requirements:
- the **Business School** offers world-renowned professional accreditations, such as the Chartered Management Institute (CMI) and the Chartered Institute of Marketing (CIM)
  - the **School of Health and Social Work** has a wide network of partners, including the Society of Radiographers and the Nursing and Midwifery Council, among others
  - the **School of Life and Medical Sciences** provides a very broad range of professionally accredited courses, including by bodies such as the British Psychological Society and the General Pharmaceutical Council
  - the School of **Physics, Engineering and Computer Science** offers courses professionally recognised by industry bodies, such as the Engineering Council and the Chartered Institute for IT
  - the School of **Creative Arts** offers courses accredited by ScreenSkills Tick, the Architects Registration Board, the British Association of Art Therapies and the Health and Care Professions Council, among others
  - the education courses provided by the **School of Social Sciences, Humanities and Education** are accredited by the Department for Education and the National College for Teaching and Leadership
  - the **Law School** works with bodies such as the Bar Standards Board and the Solicitors Regulation Authority to ensure its courses meet their accreditation standards



#### **TALENT CASE STUDY: Hamid Ibrahim, Co-Founder and Head of Creative Operations at Kugali Media**

Uganda-born Hamid Ibrahim pursued his lifelong passion for creativity by studying towards a BA (Hons) 3D Animation and Visual Effects at the University. He joined the Moving Picture Company after his graduation in 2017, and also co-founded creative studio Kugali Media, where he has been working full-time since 2018. In January 2021, Walt Disney Animation Studios announced it will be joining forces with Kugali to create *Iwájú*, an original African sci-fi series for Disney+. Hamid says: “The skills I learnt at the University of Hertfordshire were vital to my career. I was taught how to create beautiful animations and visuals effects, learning from tutors who themselves had worked on big Hollywood blockbusters. I’m excited about our collaboration with Disney and I’m looking forward to soon revealing the world of *Iwájú*.”

5.20 Students respond positively to the University’s industry-focused teaching approach, as reflected by the take-up of professionally accredited courses or courses offering placements:

- the number of student placements increased **by 82% between 2019/20 to 2021/22**, driven by an increase in postgraduate student placements, which increased sevenfold from 83 to 588 over this time
- in 2022-23, **358 employers are offering placements to University of Hertfordshire students**, of which 8% will be located across the Hertfordshire LEP area. The remainder of these placements will take place across the UK, but also globally (including Nigeria, Pakistan and Sri Lanka), as the University prepares its students for a globalised labour market<sup>64</sup>
- **42% of these employers operate in the healthcare, science or technology sectors**, in line with the University’s commitment to its clusters of excellence
- about 18,600 students – over 60% of the University’s student population – were enrolled in the 134 professionally accredited courses offered by the University in 2020/21. The majority (71%) of these students are studying towards courses offered by the Hertfordshire Business School, the School of Health and Social Work, the School of Life and Medical Sciences and the School of Physics, Engineering and Computer Science

<sup>64</sup> Hatch analysis of placement employer data for 2022/23 provided by the University of Hertfordshire.



### Bespoke courses

- 5.21 The University's bespoke courses respond to employers' current and future talent- and workforce-development needs by making education available through a wider range of pathways.
- 5.22 The University works with four further education colleges<sup>65</sup>, as part of the Hertfordshire Higher Education Consortium, to offer two-year stand-alone **foundation degrees**, in addition to **extended degrees**.
- 5.23 Providing apprenticeships in collaboration with industry partners, such as TUI, NHS and MBDA, is key to the University's talent-and-workforce development approach. The University's approach to developing apprenticeship programmes recognises that digital, carbon literacy and leadership and management skills are crucial to employee success across key sectors.
- 5.24 The University supports students into a range of professions through its offer of **12 apprenticeship programmes**, which include senior roles in health and social care, digital technology and construction.
- 5.25 As of September 2022, there were 805 active apprenticeships and 236 completed apprenticeships. Over two-thirds of apprenticeship placements were located across Hertfordshire (43%), Greater London (28%) and Bedfordshire (6%).
- 5.26 Apprenticeships are also an impactful avenue through which the University promotes diversity in workplaces:
  - 61% of apprentices are female
  - 31% are Black, Asian and Minority Ethnic

### Helping students transition to employment

- 5.27 The Careers and Employment team supports students to transition into employment. Through **workshops and careers fairs**, students can explore the career paths available to them.
- 5.28 **Mock graduate assessment centres** are organised to help students navigate the recruitment process. Alumni and employers are often invited to support these, for instance as assessors, who provides students with first-hand insight into the aptitudes that employers seek, and opportunities to make valuable links with industry. At the same time, employers gain insight into the pipeline of student talent.
- 5.29 International students wishing to work in the UK are supported to apply for the **two-year UK post-study work visa**. Having the 12th largest international student population (9,700) in the UK, and the most of any higher education institution in the East of England, the University is a key source of talent from across the world, helping to plug skill shortages regionally and nationally in areas such as computer science.
- 5.30 The **specialist recruitment support offered to SMEs** provides them access to the University's pipeline of talent, creating opportunities for students to gain experience working in small businesses.
- 5.31 Graduate Outcomes data for 2019/20 reflect how the University effectively supports its undergraduate students to take their next steps, whether that means supporting their transition into employment or encouraging them to pursue further studies. With 93% of University of

<sup>65</sup> Including Hertford Regional, North Hertfordshire, Oaklands and West Herts

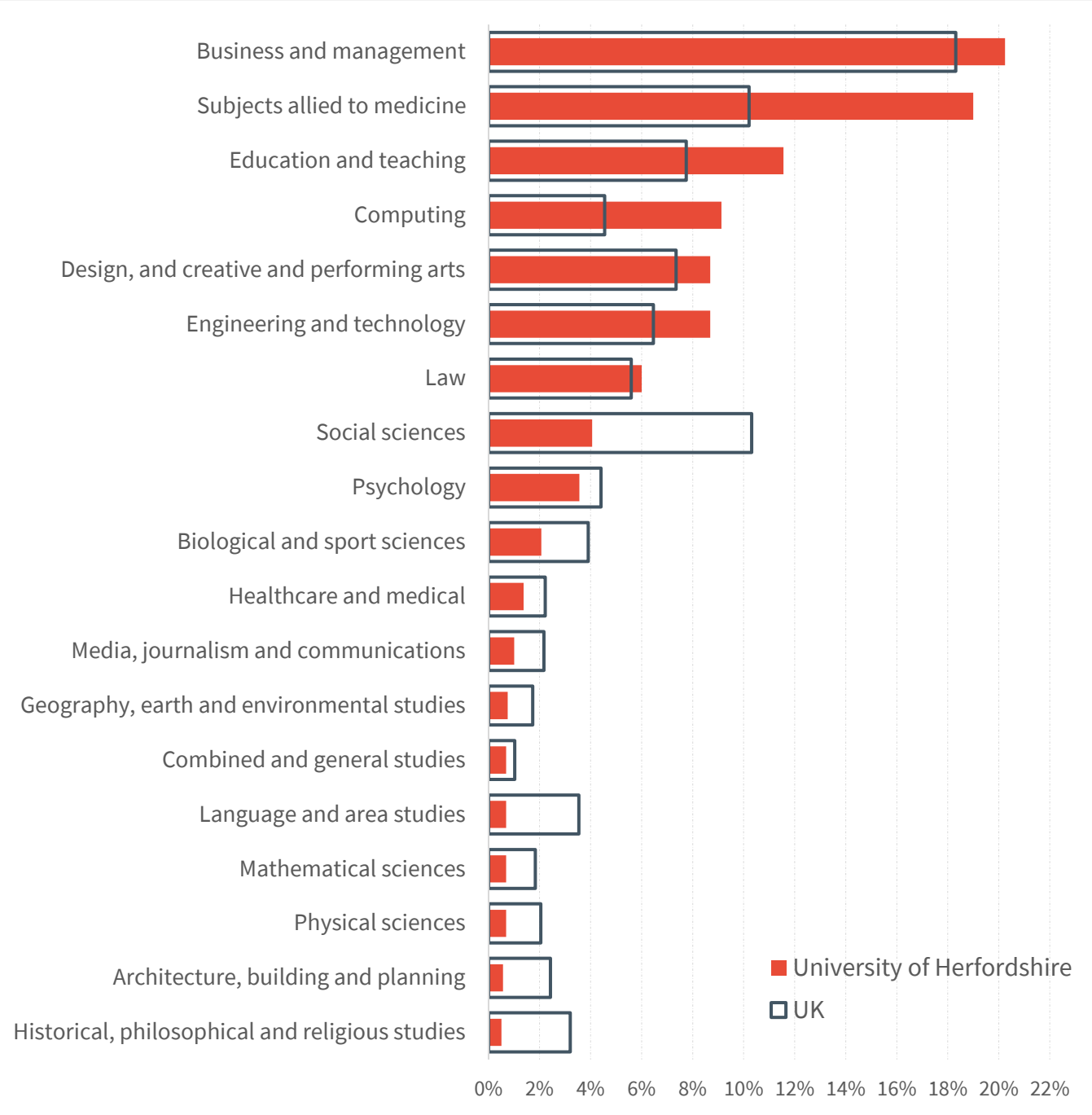
Hertfordshire undergraduate leavers in employment or further study, the University ranks in the top 10 against a group of 20 competitor universities<sup>66</sup>.

### Providing higher level skills

- 5.32 The University provided **8,000 highly skilled graduates** into the economy in 2020/21, **double the average for other universities across the East of England**. The University has become an increasingly important supplier of highly skilled talent over the last five years, with its number of graduates increasing by 16%, compared to the 10% average across the East of England.
- 5.33 University of Hertfordshire graduates bring economically and socially valuable skills to the workforce. The number of students completing courses in health and care, and in science, technology and advanced manufacturing has grown notably (by 12% and 23% respectively) in Hertfordshire since 2016. This contrasts with the East of England (-4% and 10%) and nationally (9% and -11%) where growth has either declined or been lower than Hertfordshire, further emphasising the University's commitment to meet key sectors' talent-and workforce development needs.
- 5.34 In 2020/21, the majority (20%) of the University's 8,000 graduates qualified for business and management degrees. Subjects allied to medicine are also a strong area of comparative advantage for the University, reflecting its specialism in subjects like pharmacology and adult nursing. **Close to a fifth of its graduates studied subjects allied to medicine, compared to 10% across UK universities**. Moreover, a relatively larger share of the University's graduates studied subjects such as education (12% vs 8% across UK universities) and computing (9% vs 5%).

<sup>66</sup> Including UWE Bristol, University of Brighton, University of Portsmouth, Anglia Ruskin University, University of Essex, University of Northampton, King's College London, Nottingham Trent University, Kingston University, University of Greenwich, Coventry University, De Montford University, Birmingham City University, Brunel University London, Middlesex University, University of East London, University of Westminster, University of London, London South Bank University, University of Bedfordshire.

Figure 5.2 Proportion of graduates by subject, 2020/21



Source: HESA, 2022

- 5.35 Graduate Outcomes data for 2019/20 indicates that 71% of its undergraduate leavers were in highly skilled employment post-graduation. As such, the University ranks 6th against a group of 20 competitor universities<sup>67</sup>.
- 5.36 It also shows that the University supports the workforce pool at multiple geographical levels:
- 18% of graduates were employed at companies in the East of England and 13% in Hertfordshire, with a further 51% employed at companies based in the rest of the UK. 5% of graduates are employed at companies located abroad, reflecting the international reach the University achieves by attracting a diverse student body
  - 19% of graduates<sup>68</sup> were self-employed 15 months after completing their studies, compared to an average of 5% across all UK graduates. Of that 19%, 10% were in the East of England and 9% were in Hertfordshire.
- 5.37 Graduates go on to be employed in key sectors<sup>69</sup>, thereby contributing towards addressing labour and skill shortages:
- 29% of graduates found employment in healthcare professions, reflecting the University's expertise in the field and commitment to cultivating the next generation of NHS leadership
  - 10% of graduates are employed at companies in the life sciences and engineering sectors, an area of strategic importance nationally but also regionally, with the Stevenage Bioscience Catalyst cluster located nearby

### Upskilling and reskilling the workforce

- 5.38 The University is committed to growing its flexible life-long learning offer to **upskill** and **reskill** the workforce, filling in labour shortages, especially in critical public sector occupations like health services. The role of lifelong learning in future-proofing the workforce has most recently been highlighted by the UK government's announcement of the introduction of the Lifelong Loan Entitlement from 2025.
- 5.39 To support the continued professional education of its alumni, the University has purchased and made available LinkedIn Learning memberships.
- 5.40 The University is involved in delivering national level initiatives, like Help to Grow: Management, which aims to support SME leaders. This leadership-focused initiative, co-financed by government, is delivered by the Business School and aims to provide training that supports and upskills SME founders and directors.
- 5.41 More broadly, the University offers a range of CPD courses across business, health and medicine, and art and design, as well as bespoke courses, to businesses and individuals alike:

<sup>67</sup> Including UWE Bristol, University of Brighton, University of Portsmouth, Anglia Ruskin University, University of Essex, University of Northampton, King's College London, Nottingham Trent University, Kingston University, University of Greenwich, Coventry University, De Montford University, Birmingham City University, Brunel University London, Middlesex University, University of East London, University of Westminster, University of London, London South Bank University, University of Bedfordshire.

<sup>68</sup> The self-employment rate is an approximate estimate based on Employment and Self-Employment data collected by the University for the 2019/20 Graduate Outcomes survey. It is calculated as the proportion of respondents that specified a 'Self employment/own business Job Title'.

<sup>70</sup> Higher Education Business and Community Interaction Survey, 2021



- the University delivered **19,500 learner days** in 2020/21 to businesses and individuals, resulting in **£2.9m of income** estimated to have generated an economic benefit of **£11m**. This exceeds the median of 12,700 learner days delivered on average across the East of England<sup>70</sup>;
- since 2015/16, the number of learner days delivered by the University has increased by 7,660 days, representing growth of 65% - compared to an average increase of 38% across the East of England. This reflects the dedicated work undertaken by the University to support labour force development and address shortages and gaps in the skills market
- the University's CPD offer is especially well developed around health and medicine, making up 72% of the total support provided, highlighting the University's contribution in addressing labour shortages in front-line occupations - such as paramedics and nurses - but also cultivating NHS leadership.

### Engaging pupils at an early stage

5.42 The University is engaged in improving STEM education and leadership in primary schools through initiatives such as the Primary Science Quality Mark (PSQM), a one-year school improvement programme for primary science that the University has been funding since 2018.

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**Over 90% of surveyed Year 5 teachers in PSQM schools felt that science teaching had improved because of participating in PSQM<sup>71</sup>**

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5.43 Schools are supported to achieve accreditation through three different Primary Science Quality Marks by following a rigorous process of self-evaluation. PSQM reached 260,000 children in 2021 by working with 13,000 teachers across 804 schools, of which almost half were in areas of high socio-economic deprivation<sup>72</sup>.

5.44 This programme is delivered through subject leaders, who receive compulsory CPD and expert mentoring, and work with colleagues across the school to complete the accreditation process. In this way, **more than 9,830 hours of professional development were delivered over 2021-22** through the programme.

5.45 As of April 2022, PSQM joined the Enterprise and Business Development team of the University to operate as a cross-university strategic project. It will be centrally funded from summer 2023, in recognition of its transformative potential<sup>73</sup>.

<sup>70</sup> Higher Education Business and Community Interaction Survey, 2021

<sup>71</sup> Primary Science Quality Mark, Annual report and summary of the EEF trial evaluation, October 2022

<sup>72</sup> The power and potential of the Primary Science Quality Mark – Raising the profile and quality of science in 1000's of UK primary schools since 2011, University of Hertfordshire

<sup>73</sup> Primary Science Quality Mark, Annual report and summary of the EEF trial evaluation, Why & How? And University of Hertfordshire, October 2022

### **OUTREACH SPOTLIGHT: Hertfordshire Law Clinic**

The multi-award winning Hertfordshire Law Clinic operates in conjunction with leading local law firms to improve access to justice, by providing free legal advice to the local community. This pro bono system not only benefits local residents - with hundreds seeking advice from the clinics over the years - but also offers students a host of invaluable voluntary opportunities that provide practical experience, designed to enhance their legal skills and employability post-graduation. Areas of law currently covered by the clinics include:

- Employment law
- Family law
- Housing law
- Intellectual property and commercial law
- LGBT+ specific legal issues
- Powers of attorney
- Property, consumer and contract law

Students also deliver a range of free, interactive StreetLaw workshops and presentations around Hertfordshire aimed at improving access to justice by demystifying areas of law that affect the wider community.



**TALENT CASE STUDY: Dr Grace Ononiwu CBE, Director of Legal Services at the Crown Prosecution Service (CPS)**

After graduating from Hertfordshire Law School in 1988, Dr Grace Ononiwu joined a private firm of solicitors practising criminal law where her training required her to also join the Crown Prosecution Service. It was here that she found her passion and purpose: to protect victims and the vulnerable, and to play a key role in keeping the public safe.

Since that time, she has gone on to be appointed Chief Crown Prosecutor for Northamptonshire; held the role of Chief Crown Prosecutor for the East of England and West Midlands regions; became the first Afro-Caribbean person to hold the post of Chief Crown Prosecutor in the history of the CPS; and was the first woman to hold the position in Northamptonshire, the East of England and West Midlands. Currently the Director of Legal Services at the CPS, she says: “I provide legal leadership across the CPS, and I remain committed to championing its equality and diversity agenda.”

Today, Dr Ononiwu is a patron of the University’s Law Clinic, and to honour her incredible career, was awarded an Honorary Doctorate of Laws from the University in 2017. She also had the University’s Law Court, now known as the Grace Ononiwu Law Court Building, named after her in 2021.



# 06: Research and innovation





# 06 Research and Innovation

## Overview

The University is a hub for world-leading and internationally excellent research that delivers real-world positive change. The University of Hertfordshire ranked in **the top quartile of all UK universities in terms of research impact** in the 2021 Research Excellence Framework, a metric for which it also achieved the **highest ranking of any post-1992 university**.

**At least three-quarters of research in fields** such as psychology, health and care, and agricultural sciences **obtained an ‘outstanding’ (4\*) impact ranking** demonstrating the University’s expertise in areas that deliver long-term impact.

The University has fostered a **diverse, global network of public sector, industry and university partners**, which delivers insights and collaborations that empower the University’s academics to deploy their deep know-how in ways that are industry-relevant and socioeconomically meaningful. Examples range from local collaborations **with the LEP to leverage £6m of investment through the Hertfordshire Science Partnership**, to working with nationally and internationally significant partners such as **the Defence Science and Technology Lab (DSTL)** to advance the UK’s bio-detection capabilities.

The University draws on its academic expertise to help businesses tackle their RD&I challenges. Its business-needs first approach has gained the University a reputation for its ability to translate research into practical solutions effectively. The support offered to businesses varies from short-term consultancy to knowledge exchange or knowledge transfer partnerships.

Over 2016-21, the University supported **nine projects through Knowledge Transfer Partnerships, three times the average** across the East of England. In 2021/22, **3,600 hours of RD&I support** were delivered, of which at least 27% were delivered through **knowledge exchange programmes**. To facilitate access to state-of-the-art facilities, the University invests in infrastructure projects such as the new **£89.9m School of Physics, Engineering and Computer Science (SPECS) building**.

The commercial potential of the intellectual property developed at the University has translated into two active spinouts, which are part-owned by the University, as of 2020/21. The University’s income for research from government grants and contracts (£10m in 2020/21) can also lead to breakthroughs and technologies that spill over into the private sector, improving its productivity. The economic benefits of **productivity spillovers from the University’s publicly funded research and collaborations in 2020/21 are estimated to be in the region of £70m**.

The University has the **third highest share of academic staff involved in teaching and research** in the East of England. By enriching the teaching experience through research expertise, the University is able to meet specialist talent- and workforce-development needs, including providing highly sought-after professional doctorates in fields such as clinical psychology and education.

## The importance of Research and Innovation

- 6.1 Innovation is central to addressing vital national and global socioeconomic challenges, from tackling climate change to mitigating the pressures of an ageing society and developing responses to global pandemics<sup>74</sup>. Continuity in the UK government's commitment to innovation reflects this.
- 6.2 'Intangible capital' is one of the key drivers for delivering the UK government's Levelling Up mission<sup>75</sup>. Build Back Better: Plan for Growth (2021) recognised the need to amplify the commercialisation of research and innovation by supporting businesses to access the UK's world-leading research institutions<sup>76</sup>.
- 6.3 More recently, innovation was the centrepiece of PM Rishi Sunak's speech to the CBI conference in November 2022<sup>77</sup>:
- **innovation as a driver of economic growth.** The government's approach to unleashing innovation combines public sector investment, private sector support and a pro-innovation regulatory environment, in sectors such as life sciences and AI and data
  - **embedding innovation in public services, especially the NHS,** to cut waiting times and improve the quality of care. The government's approach recognises the important role that product and process innovation will play in protecting an NHS that is free at the point of use
- 6.4 The 2022 Autumn Statement increased public spending on research and development to £20bn by 2024/25, **the largest increase in R&D spend ever over a Spending Review period**. It also increased funding for the UK's nine Catapults<sup>78</sup> by 35% compared to the last five-year funding cycle.

### Research and Innovation needs and opportunities in Hertfordshire

- 6.5 The Hertfordshire LEP Economic Plan<sup>79</sup> identifies that maintaining global excellence in science and technology is a priority. This has been reflected in Hertfordshire's ability to attract innovation funds compared to neighbouring LEP areas<sup>80</sup>. The Plan recognises that Hertfordshire's key sectors have a distinctive spatial footprint, which often extends beyond the county's boundaries.
- 6.6 Hertfordshire benefits from the research capabilities afforded by sitting at the heart of the 'Golden Research Triangle' that links London, Oxford and Cambridge. The county is home to a vibrant life-sciences sector, hosting prolific innovators like GlaxoSmithKline, which was instrumental in the development of the Stevenage Bioscience Catalyst (SBC). The SBC campus

<sup>74</sup> HM Government, Innovation Strategy, 2021

<sup>75</sup> HM Government, Levelling Up White Paper, 2022

<sup>76</sup> HM Government, Build Back Better: Plan for Growth, 2021

<sup>77</sup> [PM speech to the CBI conference: 21 November 2022, PM's Office, 10 Downing Street and The Rt Hon Rishi Sunak MP](#)

<sup>78</sup> The Catapult Network consists of nine world-leading innovation and technology centres established by Innovation UK. The centres aim to boost the UK's innovation potential in sectors of strength by supporting businesses with access to their expertise and facilities as well as fostering collaborations between academia, research organisations, industry and government.

<sup>79</sup> Hertfordshire LEP, Refreshed Strategic Economic Plan, 2017-2030

<sup>80</sup> Hertfordshire Enterprise and Innovation Strategy 2021-25, Hertfordshire LEP, 2021

consolidated the presence of leading life sciences organisations locally, including by pulling the UK Cell and Gene Therapy Catapult into the region. It has evolved into a globally significant cell and gene therapy cluster.

- 6.7 The county has a long history in the advanced manufacturing and engineering sector, dating back to the activities of the old British Aerospace at Hatfield. The sector has become diverse, with world-leading expertise in space science, satellites and defence systems. It features major players, including the likes of Airbus and MBDA. The University of Hertfordshire has had a pivotal contribution to the development of this sector - whose strengths extend beyond county boundaries - supported by the complementary role of Cranfield University, 20 miles from northwest Hertfordshire.
- 6.8 Given its existing expertise, Hertfordshire is well placed to pursue new opportunities in sectors such as agri-science and technology, and sustainable construction. Rothamsted Research – an international leader in crop-based agri-science and agri-tech – is located in west Hertfordshire. Modern methods of construction will also become increasingly important given the footprint of the sector in the county and the presence of major construction and civil engineering companies.

### The University's approach

- 6.9 The University is committed to cultivating a sustainable research community that, backed by access to state-of-the-art facilities, can produce world-leading, impactful research. The University is embedded in a network of public sector bodies, higher education institutions and industry partners. The relationships in this network inform the direction of the University's research, allowing it to maximise its real-world benefits and industry relevance.
- 6.10 Drawing on its research expertise, the University supports many businesses that approach it for support to materialise their innovation plans. It supports delivery centres, carefully listens to industry partners, and offers a package of services that is tailored to the project needs of a given business, maximising the University's in-house know-how. This approach not only ensures value-added for the business, but also infuses academic staff's research and teaching with insights from industry.
- 6.11 In addition to informing the student experience, the University's research expertise creates opportunities for postgraduate students that prepare them to meet vital specialist talent-and-workforce needs across fields such as allied healthcare, science and technology.

### The University conducts world-leading research

- 6.12 The 2021 Research Excellence Framework (REF)<sup>81</sup> reflects the emphasis placed on fostering a sustainable research environment that produces world-leading and impactful research. An increase in early career researchers and broadening the research opportunities offered to staff at the University meant that **346 members of staff were submitted to REF 2021, a 58% increase from 2014.**
- 6.13 The University rose in the research excellence rankings relative to 2014, from 83rd to 62nd. More

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**90% of the University's research was classified as having an 'outstanding' (4\*) or 'very considerable' (3\*) impact**

Research Excellence Framework, 2021

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<sup>81</sup> Research Excellence Framework 2021, <https://www.ref.ac.uk/>

than three quarters (78%) of its research was ranked as ‘world-leading’ (4\*) or ‘internationally excellent’ (3\*). **Research ranked as ‘world-leading’ (4\*) more than doubled** from 11% in 2014 to 26% in 2021.

- 6.14 Producing research that translates to real-world benefits for wider society is a priority for the University. As such, its research ranked **in the top 25% of all UK universities for research impact**. Indeed, it achieved **the highest research impact ranking for a post-92 university**. This represents a jump of 61 places compared to the 2014 REF results, the largest of any university.
- 6.15 To maximise its research impact, the University leverages the depth of its **expertise in subject areas that respond to key socioeconomic challenges and priority sectors**, both nationally and regionally. Over three quarters of research in subject areas such as psychology (100%), allied health professions, dentistry, nursing and pharmacy (75%) and agriculture, food and veterinary sciences (75%) obtained an ‘outstanding’ (4\*) impact ranking.

#### **RESEARCH CASE STUDY: Enhancing health in care homes and communities during the pandemic, 4\* REF rating**

At the onset of the Covid-19 pandemic, it became clear there was a need to radically improve how care homes and the NHS worked together. An expert team of researchers was deployed by the University towards this objective. The national Framework for Enhanced Health in Care Homes was rolled out nationally by the end of 2020 to cover around 410,000 care home residents across 11,300 care homes.

In light of the lack of evidence-based guidance to support care home staff, the research team mobilised quickly in early 2020 to work collaboratively with care home managers. The outcome of this process was a series of research-based ‘Top Tips’ to complement emerging Covid-19 policy and practice guidelines. These resources have been downloaded hundreds of times. They have been promoted by the National Care Forum, the End-of-Life Care Partnership, the Social Care Institute for Excellence and the Association of Directors of Public Health.

Additionally, the lead academic on this project – Professor Claire Goodman – briefed the Cabinet Office on care home data and evidence of what methods supported improvement, as well as briefing members of the SAGE Social Care Working Group on visiting care homes.

#### **The University’s research is informed by its key role in a diverse network of stakeholders**

- 6.16 In part, the 2021 REF results reflect how effectively the University engages with its wider network. The University has cultivated relationships with public sector bodies, other universities and industry partners locally, nationally and internationally. These relationships offer an in-depth understanding of the direction that industry is moving towards, enabling the University to better meet local, national and global needs and priorities.
- 6.17 Locally, the University draws on its academic expertise in sustainable development and health and social care to inform the decision-making process of planning authorities. Its deep know-how in areas such as life sciences, sustainable agriculture and technology support its ongoing relationship with Hertfordshire LEP:
  - the **Hertfordshire Science Partnership** is an innovative collaboration between the University and the Hertfordshire LEP, which **leveraged £6m of funding<sup>82</sup> to provide 40 companies with a broad range of support, including research collaborations that**

<sup>82</sup> [New life sciences industry panel to grow Herts key sector and deliver nationwide benefits, Hertfordshire LEP, April 2022](#)



**often included the placement of a graduate researcher.** Although the project officially ended in March 2023, the R&D models/projects it created will continue under the new Enterprise Strategy under the Science, Medicines and Technology cluster, highlighting its success

- the University has been actively supporting Hertfordshire LEP to develop its **Life Sciences sector strategy**. As early as 2014, academic experts at the University helped to draw up the Life Sciences wing of Hertfordshire's LEP Strategic Economic Plan that has eventually culminated in the publication of 'Hertfordshire's Cell and Gene Therapy Cluster 2021' and the launch of a new life sciences industry panel in 2022, of which the University is a part<sup>83</sup>

#### **PARTNERSHIP SPOTLIGHT: Hertfordshire Science Partnership**

Through the Hertfordshire Science Partnership<sup>84,85</sup> and the Hertfordshire LEP, the University successfully secured £4m of Local Growth Fund and European Regional Development Fund (ERDF) investment.

The Hertfordshire Science Partnership supports SMEs in the agri-tech and life sciences sector by leveraging the University's expertise across food science, agriculture and medicine, and providing access to its state-of-the-art facilities. Through business-facing, collaborative research, it aims to help SMEs generate technologies suitable for later-stage innovation funding.

Among its other activities, the Hertfordshire Science Partnership enables four-year Knowledge Exchange Partnerships. In year one, a PhD student is placed into a business to undertake a commercially-focused project yielding immediate benefits. Subsequently, they focus on a research project delivering strategic and competitive benefits.

The Hertfordshire Science Partnership reached 40 companies through the research, development and innovation support provided.

6.18 The University is also active within a network of anchor institutions in Hertfordshire that are driving forward the growth of the life sciences and agri-tech sectors:

- it maintains strong links to the **Stevenage Bioscience Catalyst (SBC)**, which has evolved into the UK's largest cell and gene therapy cluster and the third largest globally<sup>86</sup>
- the University of London's **Royal Veterinary College (RVC)** was looking to establish a Centre for Vaccinology and Regenerative Medicine. After plans for a development centre at its Hawkshead campus stalled, the University of Hertfordshire co-operated with RVC and brought them into the SBC cluster
- the University's **Centre for Agriculture, Food and Environmental Management Research (CAFEM)** has a strategic research agreement with RVC and **Rothamsted Research**, supporting a collaboration of world-class agri-food researchers in Hertfordshire<sup>87</sup>

<sup>83</sup> [New life sciences industry panel to grow Herts key sector and deliver nationwide benefits, Hertfordshire LEP, April 2022](#)

<sup>84</sup> [Hertfordshire Science Partnership, University of Hertfordshire](#)

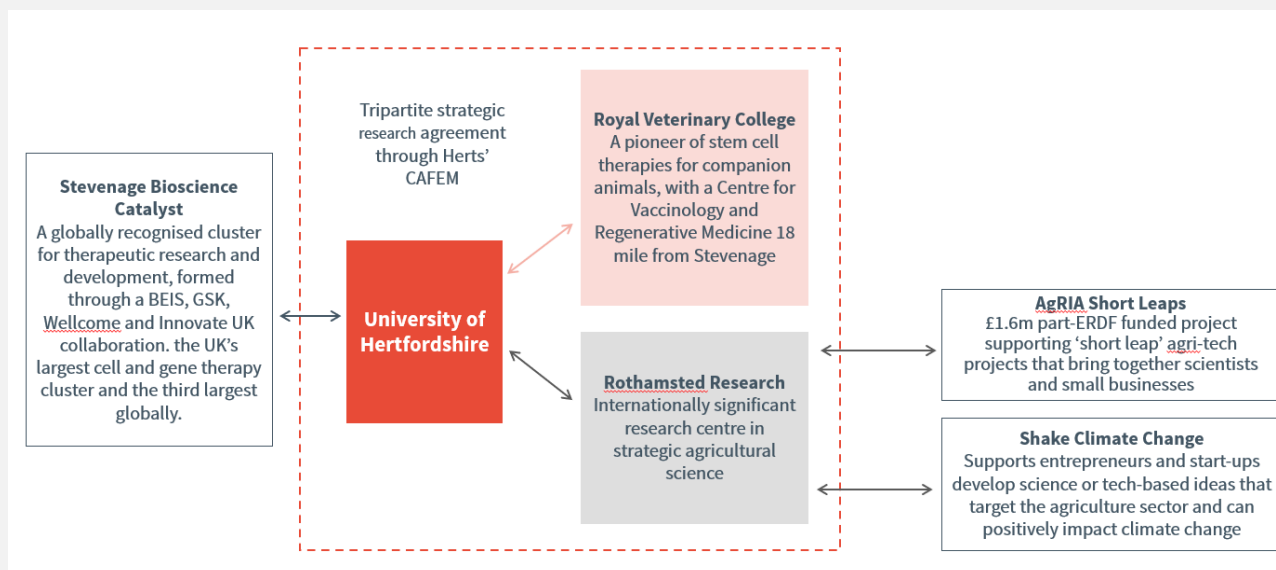
<sup>85</sup> [Funding and partnerships, University of Hertfordshire](#)

<sup>86</sup> [Life Sciences | Hertfordshire LEP](#)

<sup>87</sup> [Centre for Agriculture, Food and Environmental Management Research \(CAFEM\) | Research | Uni of Herts](#)

- the University is part of a consortium of partners, led by Rothamsted Research, delivering the **AgRIA Short Leaps** and **Shake Climate Change** projects, which offer scientific and research support to businesses in the agriculture sector.

**Figure 6.1 A network of anchor institutions in Hertfordshire**



Source: Hatch, 2022

6.19 The University's expertise across medicine, science and technology facilitates relationships with national and international government agencies and industrial partners:

- the University's academics act as consultants for the UK Health Security Agency
- the University's BioMEMS group has worked with the Defence Science Technology Laboratory – an executive agency of the Ministry of Defence – to advance the UK's national bio-detection capabilities, thereby contributing towards the country's critical national infrastructure
- the University has engaged in collaborations with international agencies, such as the US Homeland Security Agency, and multi-national companies such as GlaxoSmithKline

#### **PARTNERSHIP SPOTLIGHT: Defence Science and Technology Lab**

The Defence Science and Technology Lab (DSTL) is an executive agency of the Ministry of Defence (MOD) that provides expert research, specialist advice and operational support in the defence and security field<sup>88</sup>.

DSTL and the University's BioMEMs Laboratory, which is part of its multi-disciplinary Bioengineering Research Group, worked together as part of a £1.4m framework agreement to advance the UK's national bio-detection capabilities. This led to a partnership with Thales to deliver the Biological Surveillance and Collector System to the British military<sup>89</sup>.

<sup>88</sup> [About us - Defence Science and Technology Laboratory - GOV.UK \(www.gov.uk\)](https://www.gov.uk/about-us-defence-science-and-technology-laboratory)

<sup>89</sup> [Research collaborations and industrial partnerships | Research | Uni of Herts](#)

**RESEARCH CASE STUDY: Upskilling radio astronomers and building STEM skills across Africa, Asia and South America, 4\* REF rating**

Radio astronomy research from the University of Hertfordshire's Centre for Astrophysics Research (CAR) has informed the development of an intensive people development programme across low and middle-income countries in Africa, Southeast Asia and Latin America.

As radio astronomy encompasses a wide range of techniques and technologies, this research has had direct impacts on the economies of these nations. By engaging hundreds of young people in graduate, masters and PhD-level training, the research programmes have upskilled key sections of the workforce in these countries. This has also led to entrepreneurial activity as well as job and wealth creation; prepared these countries to seize economic opportunities from new radio telescope networks; and enabled the engagement of thousands of school children in Science, Technology, Engineering and Mathematics (STEM).

Using cutting-edge techniques in astronomical survey science, data analysis, and interferometry (which is the measuring of interference along light, sound and radio waves – a discipline that is mostly used for the calibration of precision machinery), the University's CAR researchers co-designed the 'Development in Africa with Radio Astronomy' (DARA) initiative. This has led to the delivery of self-sustaining radio astronomy hubs in Zambia and Madagascar, technical training programmes in Botswana and Mozambique, and contributed to the delivery of a DARA 'spin-off' in Latin America. Furthermore, in 2017, CAR researchers led the design and delivery of a related radio astronomy programme in Thailand, which supported the Thai government to deliver its flagship infrastructure project of a 40-metre radio telescope that will enable Thailand to collaborate across international radio astronomy projects.

This research hasn't just garnered recognition in ministerial statements and independent evaluations, but has also influenced the allocation of £5.5 million in UK government overseas aid, strengthening the UK's soft power around the globe.

**By drawing on its world-leading expertise, the University provides highly tailored RD&I support to businesses**

- 6.20 **The University invests in improving its facilities** to support its researchers and businesses to pursue their innovative ideas. The new state-of-the-art School of Physics, Engineering and Computer Science (SPECS) building will soon complement the University's portfolio, which already includes the £50m Science Building, housing the School of Life and Medical Sciences.



**FACILITY SPOTLIGHT, new School of Physics, Engineering and Computer Science building (SPECS), College Lane campus**

The new state-of-the-art School of Physics, Engineering and Computer Science (SPECS), due to open in 2024, represents a £89.9m investment. It will bring together leading teaching staff, researchers, students and businesses into one collaborative space.

With its cutting-edge facilities, the SPECS building showcases the University's commitment to modern-day innovation and research within key policy areas such as climate change, net zero, AI and robotics, and advanced engineering. This support will extend to SME businesses, using the University's Enterprise Zone status, to help them develop commercial ideas into real-life solutions that tackle modern-day challenges.

The SPECS building facilities will include house modelling, simulation, a computer science labs house, research labs including the Merlin Flight Simulator, the Wolfson Centre for Biodetection and Instrumentation Research, and an automotive workshop complete with electric vehicle facility. Workshop space and research labs on the upper floors will also provide a range of RD&I support.





#### **FACILITY SPOTLIGHT: Science Building, College Lane**

The £50m Science Building is home to the School of Life and Medical Sciences which offers specialist practical and dispensing laboratories and a clinical simulation centre. Each subject area based within the school has its own specialist facilities which enable students and researchers to be at the forefront of research and innovation. These facilities have allowed the University to be one of the UK's largest pharmaceutical, biotechnology and life science clusters. The School regularly collaborates with European partners, the pharmaceutical industry, SMEs, biotechnology companies and both NHS and private healthcare providers.

- 6.21 The RD&I support activities of the University add value to businesses, while providing researchers with valuable insights into industry that inform their research and teaching.
- 6.22 The placement of a graduate researcher into a business is facilitated through Knowledge Transfer Partnerships – a UK-wide Innovate UK programme that has been running over the last 40 years – as well as the Knowledge Exchange Partnership programmes available at the University.
- 6.23 Through **Knowledge Transfer Partnerships**, a research associate is placed into a business to work on a specific project for 12 to 36 months. Grant funding from Innovate UK can cover up to two thirds of costs for SMEs and up to half of costs for larger companies. The University engaged with nine companies through Knowledge Transfer Partnerships over 2016-21, supporting nine projects compared to an average of three across the East of England during this time<sup>90</sup>.
- 6.24 **Knowledge Exchange Partnerships** have been facilitated through the Hertfordshire Science Partnerships and the University's involvement in KEEP+.

<sup>90</sup> Knowledge Transfer Partnerships, Innovate UK (<http://ktp.innovateuk.org/search.aspx>)

### **PARTNERSHIP SPOTLIGHT: KEEP+**

The University was recently part of a consortium of five partners<sup>91</sup> delivering the KEEP+, an ERDF-funded scheme that provided businesses with flexible innovation opportunities with a focus on new product and service development. The Knowledge Exchange Embed Partnerships (KEEP) facilitated a tripartite collaboration between a business, a university and a graduate employee. KEEP+ also offered research and innovation collaborations, grants for consultancy support and stand-alone capital grants. Over three years, KEEP+ secured £3.2m of funding and supported 175 companies and 225 projects. 15 KEEP+ companies were supported with projects at the University of Hertfordshire during the scheme, which ended in December 2021.

- 6.25 Through **technical and consultancy support**, businesses can access the University's facilities and research teams to address in-house capabilities and knowledge gaps. SMEs are also supported through access to funding streams to reduce finance cost barriers.
- 6.26 **Intellectual property and licensing** entails the licensing of the University's portfolio of intellectual property opportunities to commercial organisations on an exclusive or non-exclusive basis. These can be co-developed through collaboration or supported by the University's academic experts.

### **INNOVATION CASE STUDY, Aspia Space**

A conversation between founder Professor Jim Geach and a Cornish farmer inspired the idea for University spin-out company Aspia Space, a cloud-free Earth observation data intelligence service. The farmer had explained that he was unable to get precise satellite data on how his fields were performing due to too much cloud coverage, and it occurred to astrophysicist Professor Geach that similar techniques used in his work could be applied to create a solution. Together with his PhD student, Mike Smith, they wrote an algorithm that accurately predicts satellite images of the ground regardless of cloud coverage. The pair then developed their own unique algorithm using deep learning (AI) techniques, which is patented by the University. Their success led them to launching Aspia Space together in 2022.

"Today, we're our client's 'eye in the sky'," says Professor Geach. "Our cloud-free satellite imaging data is combined with our team's expert human analysis to provide clients with data intelligence that enables them to better understand trends, predict risk and make more informed decisions on the ground. Patterns of change that would otherwise have been missed, such as crop disease and the impacts of climate change, can be identified, analysed and acted upon."

### **Impact of the RD&I support offered to businesses**

- 6.27 Nearly **three fifths (58%) of the business support hours** delivered by the University in 2021/22 **supported RD&I activities**. Over 1,000 of the 3,600 hours of RD&I support were delivered through the KEEP+ programme (551 hours) and the Hertfordshire Science Partnership (467 hours).
- 6.28 The University generated a total of **£10 million in income for research from government grants and contracts in 2020/21**. This will support private sector productivity spillovers equivalent to around **£70 million**.

<sup>91</sup> Including A.R.U., the University of Brighton, University of Essex, the University of Greenwich and the University of Suffolk

- 6.29 259 IP licenses were granted between 2016-2021. The University of Hertfordshire has generated £553K from businesses and organisations using its intellectual property rights over the last five years. As of 2020/21, there were two active spinouts part-owned by the University, set up to exploit IP that has originated from the University.

#### **INNOVATION CASE STUDY, Fluid Pharma Ltd**

Fluid Pharma is a University spin-out company founded by Professor Fang Liu, Professor of Pharmaceutics at the University of Hertfordshire, that has developed a MicroCoat™ technology for producing functional microparticles at industrial scale, which will transform the intake of medicines for children and older patients.

It started with two technical staff including pharmacy graduate, Kavit Patel, a PhD Associate, who undertook technical development and data collection to aid the advancement of the product. The University supported the research and built a HKEP project around it, providing Kavit with industry-based experience and spending the first year focussed on understanding the business, the product and its development. The company proved to be successful due to the tailored SME support provided to carry out the R&D work, bringing together the University's academic expertise with commercial enterprise, and translating the research into a product which can be taken to market. Fluid Pharma has now partnered with two world-leading Contract Manufacture Organisations for large-scale manufacturing of the developed products. The company has also received prestigious grant awards including a \$1.9 million award from UnitaidExplore (a World Health Organization funding mechanism) to development anti-malarial treatments for children in low- and middle-income countries.

Dr Liu said: "Through extensive research, supported by funding from the Hertfordshire Science Partnership, Fluid Pharma has not only made it possible to develop this technology, but to make a real impact to patients on an industrial scale."

Kavit added: "I've had so many amazing opportunities through this partnership, like being able to make contacts at leading companies in the field of pharma coating technology."

#### **Talent- and workforce-development benefits from the University's research expertise**

- 6.30 Teaching and learning activities draw on the University's research expertise, exposing students to the interaction between the latest academic thinking and industry. In 2020/21, **60% of academic staff were engaged in both teaching and research**, compared to 41% across universities in the East of England<sup>92</sup>.

**The University of Hertfordshire has the third highest share of academic staff engaged in teaching and research in the East of England in 2020/21.**

Higher Education Statistical Agency, 2022

- 6.31 The University's research expertise in areas such as medicine, food science and agriculture has enabled it to gain funding for Knowledge Exchange Partnerships that created industry-minded doctoral studentships, such as those available through the Hertfordshire Science Partnership.

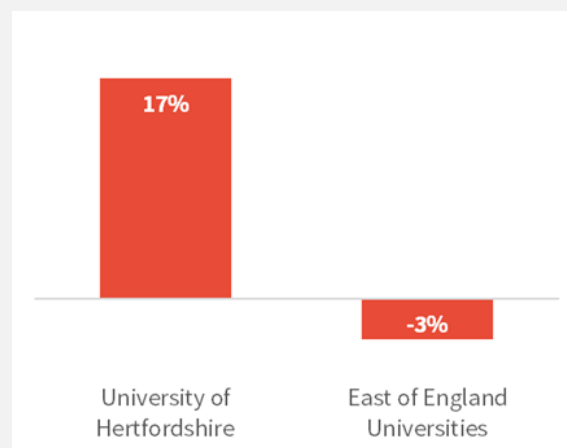
<sup>92</sup> HESA, 2022

- 6.32 The University of Hertfordshire is the only post-1992 university in the consortium of founder universities<sup>93</sup>, led by the University of Bristol. Moreover, it is the only centre for doctoral training in the engineering and physical sciences of aerosols in the UK. By addressing the divide between contemporary research, standard training paradigms and engineering challenges, the centre offers an alternative, multi-disciplinary approach to training the next generation of aerosol scientists<sup>94</sup>.
- 6.33 As a founding member of the EPSRC Centre for Doctoral Training in Aerosol Sciences, the University offers unique opportunities for doctoral students in a field that influences health, visibility and the global climate.
- 6.34 In both 2021/22 and 2022/23, the University secured £150k of Enhancing Research Culture funding. This is an investment pot launched by Research England in response to the government's R&D People and Culture Strategy. The strategy aims to ensure that the research system is a nurturing environment composed of a diverse pool of talent with the right skills<sup>95,96</sup>.

#### **The University contributes towards meeting specialist workforce and development needs**

- 6.35 The University leverages its research expertise to produce specialists that contribute towards resolving vital socioeconomic challenges, like fortifying the healthcare and education sectors. **Postgraduate research student enrolments at the University increased by 17% since 2014/15**, contrasting with the 3% decrease observed across other East of England universities.

**Figure 6.2 Percentage (%) change in postgraduate research enrolments, 2014/5-2020/1**



Source: HESA, 2022

- 6.36 **Professional doctorates account for 25%** of the 595 student enrolments in postgraduate research courses in 2020/21. Professional doctorates combine research with training. A high share of professional doctorate students study clinical psychology (38%), but also education (28%).

<sup>93</sup> Including the Universities of Bath, Bristol, Cambridge, Imperial College, Leeds and Manchester

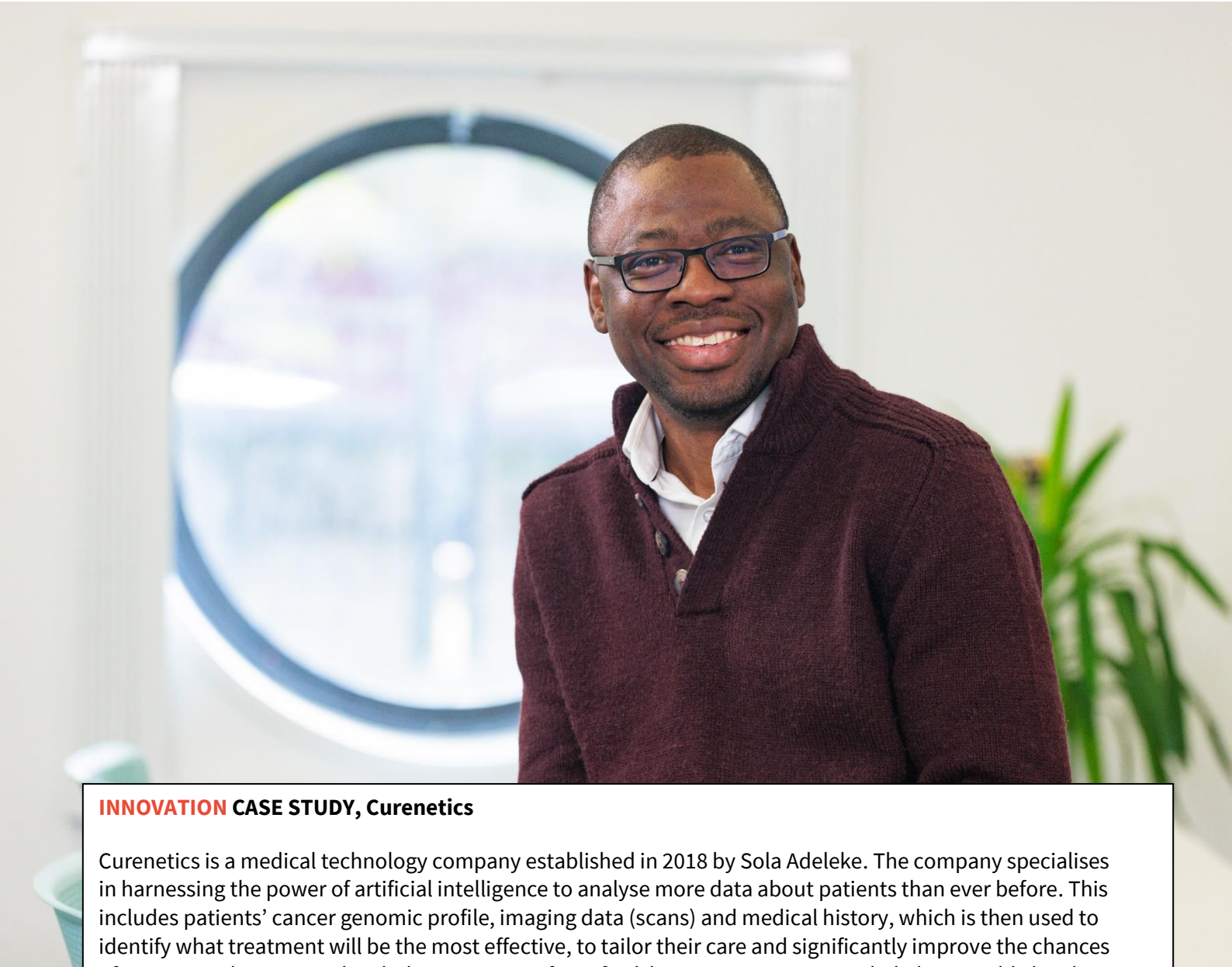
<sup>94</sup> [Powering Potential, University of Hertfordshire](#)

<sup>95</sup> Enhancing Research Culture funding allocations 2021/22, Research England, December 2021

<sup>96</sup> Enhancing Research Culture funding allocations 2022/23, Research England, September 2022




- 6.37 Over the last two years, the University has been working towards increasing the number of doctoral candidate positions on the clinical psychology programme, in response to a request by the NHS. This is reflective of the University's excellence in this field, which achieved a 100% 'outstanding' (4\*) research impact rating in the 2021 REF.



#### **INNOVATION CASE STUDY, Curenetics**

Curenetics is a medical technology company established in 2018 by Sola Adeleke. The company specialises in harnessing the power of artificial intelligence to analyse more data about patients than ever before. This includes patients' cancer genomic profile, imaging data (scans) and medical history, which is then used to identify what treatment will be the most effective, to tailor their care and significantly improve the chances of success. Sola partnered with the University of Hertfordshire in January 2021 to help him establish a diverse team with both expert technical and clinical skills to help his company achieve its strategic goals. He is also sponsoring a University of Hertfordshire PhD student to work within his business, and has benefitted from the expertise of Herts' AI, data science and genomics experts. "We want to be the market leader, revolutionising treatment so that we're reducing toxicity, maximising impact and ensuring that both patients and the NHS benefit," says Sola. "The University have played a crucial role in helping me work towards achieving this ambition by offering great talent and a very personal service, modified to support my unique circumstances."



A group of graduates in black gowns and caps are celebrating on a green lawn. Several black graduation caps are flying through the air above them. The graduates are smiling and raising their hands. In the background, there are green trees and a brick building. A semi-transparent brown rectangle is overlaid on the upper part of the image, containing the text.

# 07: Concluding observations



# 07 Concluding observations

- 7.1 **This report has brought together an up-to-date evidence base on the University of Hertfordshire's economic impacts. It is clear from the analysis that the impact of the University's presence is very significant. At the level of Hertfordshire alone, the university's economic footprint amounts to nearly 6,300 Full Time Equivalent jobs, equivalent to 1 in 100 FTE jobs in the county.**
- 7.2 But the University's economic impact extends well beyond this impressive headline. It makes a number of distinctive contributions, and in many senses, acts as a model for an engaged anchor institution that connects the county nationally and internationally.
- 7.3 The University is very well embedded and connected in networks at a local, regional and national level. It is evident from our research and consultations that staff throughout the organisation are aware that, as the only university in the county, the institution has a unique role and responsibility. Senior staff are very well represented on strategic bodies locally (e.g. through the local authorities and LEP), regionally (e.g. through the East of England CBI) and nationally (e.g. the Health Security Agency, the Department for Transport, Universities UK and many others).
- 7.4 We have seen several concrete examples of how this embeddedness flows into the University's strategic approach and then into its activities on teaching, research and knowledge exchange. Much of its work is oriented around the needs of the economy and key sectors. This means that:
- its talent- and workforce-development offer directly addresses areas of skills shortage in key strategic sectors (including healthcare, life sciences, advanced engineering and computer science) but also in leadership and management, digital skills and carbon literacy, through an industry-relevant curriculum.
  - its proactive efforts to widen access to education and nurture the diverse body of students it attracts enhance the long-term lifetime outcomes of its students - it ranks in the top 20 for social mobility nationally - and contribute towards creating workplaces that are representative of the UK's society.
  - its work on entrepreneurship and growth addresses priority sectors including Health & Care; Science, Medicine and Technology; Advanced Manufacturing and Materials; and Screen Arts.
  - its research is often translated into practical business solutions, such as through the creation of the Hertfordshire Science Partnership. This supported 40 companies across the life sciences and agri-tech sectors to generate technologies suitable for later stage innovation funding, including by enabling four-year knowledge exchange partnerships involving the placement of a graduate student in the company.
- 7.5 Importantly, this study has generated new, first-hand evidence on economic impact from the businesses the University works with, using a specially commissioned survey. This kind of evidence is rarely collected by universities in this way, instead tending to be piecemeal and collected only when funding mandates it. The University is to be commended for taking steps to collect this evidence. This evidence base has, therefore, helped the university go beyond headlines from datasets such as the HE-BCI survey, to hear from businesses on the impacts they are experiencing from the university's wide-ranging support. This has enabled us to see the tangible impacts on business growth, which are expected to reach £40 million in net additional GVA and 830 new FTE jobs among those businesses recently supported.

- 7.6 While the report has uncovered significant evidence of impacts at the regional and national level, the University also has international reach. Through its world-leading research, the University is globally networked with public sector, industry and university partners – with its reach extending as far as the US Homeland Security Agency. The University has the largest international student population in the East of England, with more international students than the London School of Economics and the University of Oxford. Those students inject large amounts into the economy while studying, supporting an estimated 1,650 FTE jobs. Moreover, these students provide an important source of temporary local labour supply to industries like hospitality, which are experiencing shortages. Those that stay in the UK upon graduation go on to work in nationally important sectors such as engineering and healthcare. The majority of the University’s international students are studying towards postgraduate degrees, and as such bring sought-after specialist skills to the UK economy, while their culturally diverse experiences bring new approaches to solving innovation challenges.
- 7.7 The University is investing for the future, with major projects - such as the £89.9 million new School of Physics, Engineering and Computer Science building - that will build on its already diverse portfolio of state-of-the-art facilities, including the Science Building (£50m), the Enterprise Hub building (£12m) and the Institute of Sport (£7.5m).
- 7.8 Going forward, the University is very well placed to build on, and to grow, the economic contributions that are highlighted in this report.



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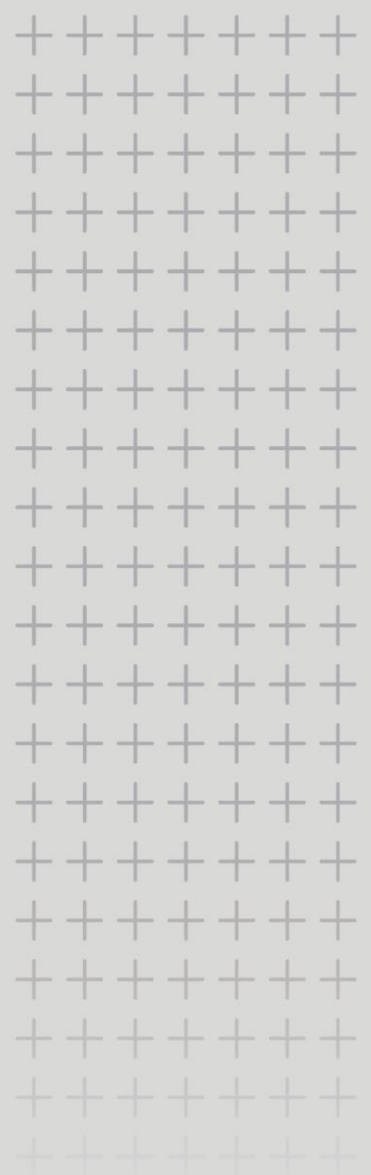
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