



# HCI PILLAR 3 MID TERM EVALUATION REPORT SUMMARY





**Background and Overview**

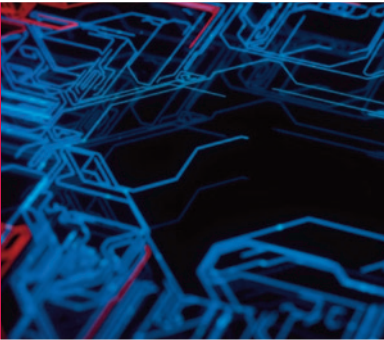
The Human Capital Initiative (HCI), a five year project, investing €300m of NTF funding commenced in 2020. HCI aims to increase capacity in higher education to provide skills-focused programmes designed to meet priority skills needs. Pillar 3 of the HCI is the focus of this mid-term review, which represents an investment of over €200m. Pillar 3 projects are aimed to be focused on innovation and agility, and to be aligned with various national strategic objectives, higher education system objectives and, more broadly, future skills needs for society and the economy. There are 24 innovative and transformational projects. HCI objectives reflected in the work of the 24 projects include the increased provision of skills needs, future proofing graduates, embedding transversal skills, and incentivising continued reform and innovation in higher education. Pillar 3 aims to deliver innovation on more than 200 new and existing higher education courses, projected to impact over 20,000 students. The key outputs at this mid point exceeded this initial target with close to 1,000 new courses and engagement with over 23,000 learners.



Impacting  
over 23,000  
learners



Investing  
€200m of  
NTF funding



1,000 new  
courses

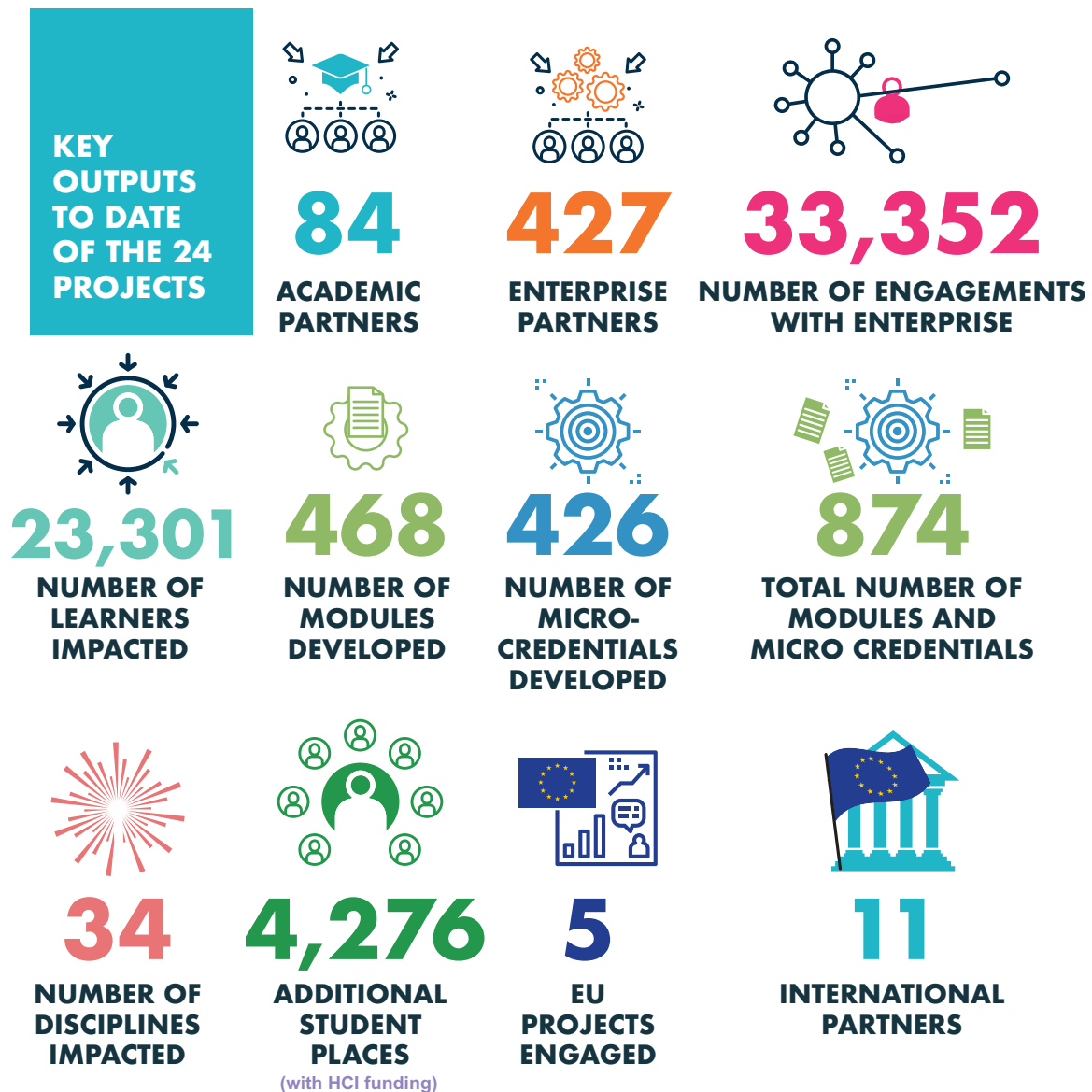


Over 33,000  
enterprise  
engagements



## Key Outputs to Date

The overall HCI programme funding provided under Pillar 3 has already resulted in a number of key outputs, including in terms of additional places being provided. This demonstrates that the funding has had a significant impact already in expanding training to meet priority skill needs.



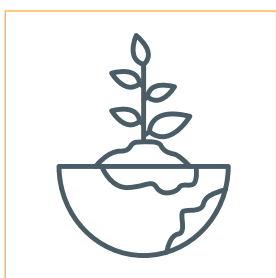
<sup>1</sup> Over 4,000 additional student places have been achieved through direct funding, and a significant number of additional places are still expected as projects mature. Some projects delivered additional places which were not funded, an indication of the wider impacts of the projects, which facilitated the creation of approximately 3,000 additional places beyond those directly funded by HCI.

## Policy Alignment

The HCI, and its constituent projects, are aligned with several national and regional policies. The goals of the HCI are aligned with the aims of the National Skills Strategy 2025, which is committed to the growth of the Irish economy, and the development of the skills base within its workforce. This commitment is driven by several key principles. The HCI programme directly addresses these principles, which aim to enhance Ireland’s reputation as a hub of talent, and to directly help address the following national strategic priority goals:



Housing for All



Climate Action Plan 2021



Ireland’s National Skills Strategy 2025



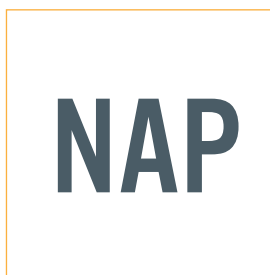
International Financial Services Strategy



Enterprise 2025



Impact 2030: Ireland’s Research and Innovation Strategy



National Access Plan 2022-2028



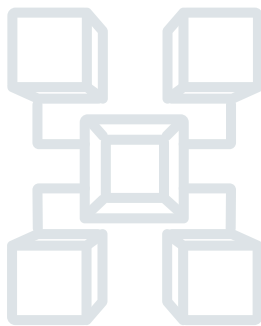
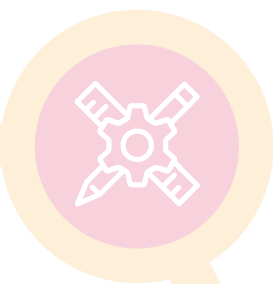
Ireland’s Industry 4.0 Strategy 2020-2025

Some projects are directly relevant to industry-specific or regional strategies. Some examples of these are provided below. A large majority of respondents within the enterprise partners were positive about the level of alignment of the programme to emerging skills needs, and the broader needs of the economy. For learners, there was a highly positive reception to how well aligned the programme is for career development.

<sup>2</sup> Engineering Industry Ireland (2022). “Engineering Industries Ireland Strategy 2022-2025”. Ibec.  
<sup>3</sup> Irish Funds (2021). “Leading Together: The Voice of the Funds and Asset Management Industry in Ireland”.  
<sup>4</sup> CyberSkills (2022). “State of the Cyber Security Sector in Ireland 2022”.  
<sup>5</sup> NCSC (2019). “National Cyber Security Strategy 2019-2024”. See: [https://www.ncsc.gov.ie/pdfs/National\\_Cyber\\_Security\\_Strategy.pdf](https://www.ncsc.gov.ie/pdfs/National_Cyber_Security_Strategy.pdf)  
<sup>6</sup> The Teaching Council (2021). Strategic Plan 2022-2027.  
<sup>7</sup> Ibec (2019). “Ireland – the Global BioPharmaChem Location of Choice.”  
<sup>8</sup> Central Bank of Ireland (2021). “Understanding the Future of Insurance: Climate & Emerging Risk Survey”.

Sector and Project Specific Policy Alignment	
Strategic Policy	Relevant HCI Project(s)
Engineering Industries Ireland Strategy 2022-2025 <sup>2</sup>	REEdI- Rethinking Engineering Education in Ireland
Leading Together: <sup>3</sup>	Funds Academy
State of the Cyber Security Sector in Ireland 2022 <sup>4</sup>	Cyber Skills
National Cyber Security Strategy 2019-2024 <sup>5</sup>	
The Teaching Council Strategic Plan 2022-2027 <sup>6</sup>	The ADVANCE Centre for Professional Education
	HigherEducation 4.0
	RPL
	Virtual Laboratories in higher education
	TCD: Next generation teaching and learning
	The ADVANCE Centre for Professional Education
A Strategy for the BioPharmaChem Manufacturing Sector in Ireland 2019-2023 <sup>7</sup>	Enabling Future Pharma
Understanding the Future of Insurance <sup>8</sup>	CIRDAS

**Source: Indecon Analysis**



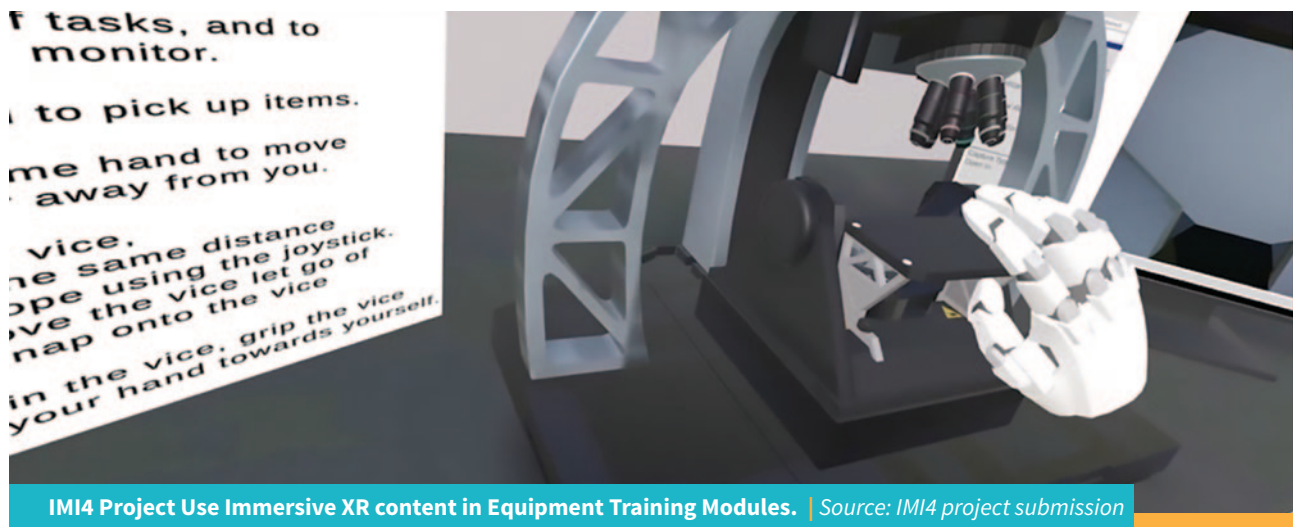
## Innovations across teaching and learning

There are many examples of innovations across teaching and learning which have been supported by the HCI. Support provided under the HCI has provided access to technologies (both software and hardware) which are actively being piloted and deployed in learning environments nationally. Some examples of the types of technology being deployed are as follows:

- > The Cyber Skills project has facilitated the procurement and setup of the Cyber Range software system, a virtual controlled, interactive environment that simulates a wide range of security incidents, complex IT environments and real-world threats, that will enhance skills for the cyber security sector
- > The IMI4 project has enabled the development of immersive XR content, and new test equipment training modules in Extended Reality (XR), tethered XR, and a PC-installed version. VR content from partner institutes is being expanded in the current national pilot of the IMI4 programme.
- > The Virtual Labs project has developed the use of virtual laboratories as a teaching tool for the chemical sciences. The project is creating, a dedicated Science Studio at UCC which will provide a state-of-the-art facility to record practical elements of experiments.
- > AMASE is establishing an education and training platform programme in Additive Manufacturing within the South-East Region. Additive Manufacturing will play an important role in the Med-Tech, Bio-Pharma, Aerospace, Agri-Tech, and Precision Engineering sectors.
- > The Creative Futures Academy has invested significantly in technology (software and hardware) in the area of virtual production, audio technology, and sound design making new studio spaces and equipment available to both existing students and to new learners at Levels 8 and 9.
- > Innovative activities of the DASBE project include the design, development and testing of a number of VR tools and software solutions to support in the delivery and assessment of existing and new programmes in sustainable construction practices.



AMASE Project Use of 3D Printing | Source: [www.amase.ie](http://www.amase.ie)



An important aspect of the HCI Project 3 funding is the number of projects which involve innovation in learning. A small number of examples of some of the innovations being piloted and rolled out are set out below.

- > One sub-project being developed by the Higher Education 4.0 project is to develop adaptive learning systems to improve student engagement and performance using technology. This offers a personalised learning environment for students through LTI integration within the VLE to support foundation/basic principles modules in the form of adaptive digital versions of text.
- > The Sustainable Futures project will support the development of a range of virtual experiences that would be difficult or dangerous for students to have in real life. For example, this may include a tour of water treatment plant or a virtual visit to an underwater habitat.
- > The Enabling Future Pharma project is developing innovations in curriculum content. Students receive practical training in applied biopharma techniques and tools and their use, with assessment focused on showing competency rather than knowledge.
- > GROWTHHub is encouraging a growth and entrepreneurial mindset among students and enterprise-based learners. The project has designed an innovative approach using dynamic learning methods containing three phases: Prepare, Engage, and Explore, and is working closely with enterprise partners to develop entrepreneurial skillsets.
- > REEdI has introduced the Engineers in Residence to innovation, which brings industry and academia collaboration into practice, through these formalised posts. These posts are appointed to industry engineers, and provide quality industry partnership to ensure that engineering curricula keeps pace with industry needs.
- > UL@Work engages Professors of Practice to ensure that industry co-design and delivery becomes embedded in university policy.

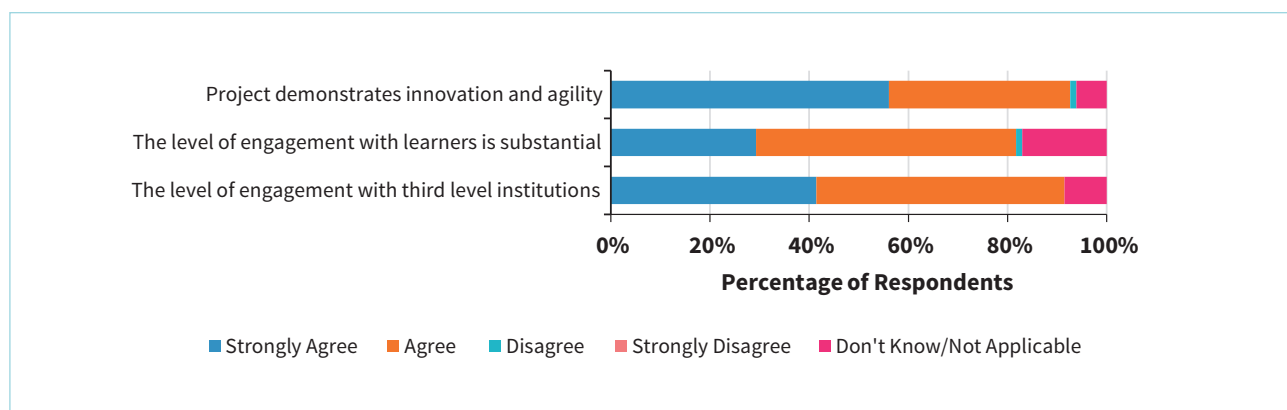
Many projects display innovation in how they develop courses, and how they collaborate with external stakeholders in doing so. Some examples of this are shown below.

- > The MicroCreds project has allowed the development of a single platform for micro-credentials to showcase the micro-credential offerings of all seven partner universities. In addition, it has allowed for the development of an evidence-based model of university-enterprise collaboration for the co-creation of micro-credentials.
- > The UL@work Masters in Professional Practice allows learners to design their own interdisciplinary Masters by combining stackable postgraduate diplomas in over 30 fields.
- > The project to promote the recognition of prior and lifelong learning has been structured so that HEI project partners utilise technology to support a systems approach to enhancing organisational RPL capacity. Examples include the development of an online platform allowing RPL coordinators to work virtually with potential RPL applicants from initial query through to portfolio creation.
- > Ireland’s Knowledge Centre for Carbon, Climate, and Community Action (IKC3) project aims to build a national platform for the development of knowledge and skills to support the transition to a decarbonised, sustainable economy.

### Survey Results

Enterprises engaged as part of one or more of the HCI funded projects report very positive views with respect to the engagement with the projects. Survey responses from enterprise partners which relate to aspects of the overall implementation of the programme are shown below. Responses from learners are similarly positive about aspects of programme implementation.

#### Implementation-Related Survey Responses from Enterprise Partners

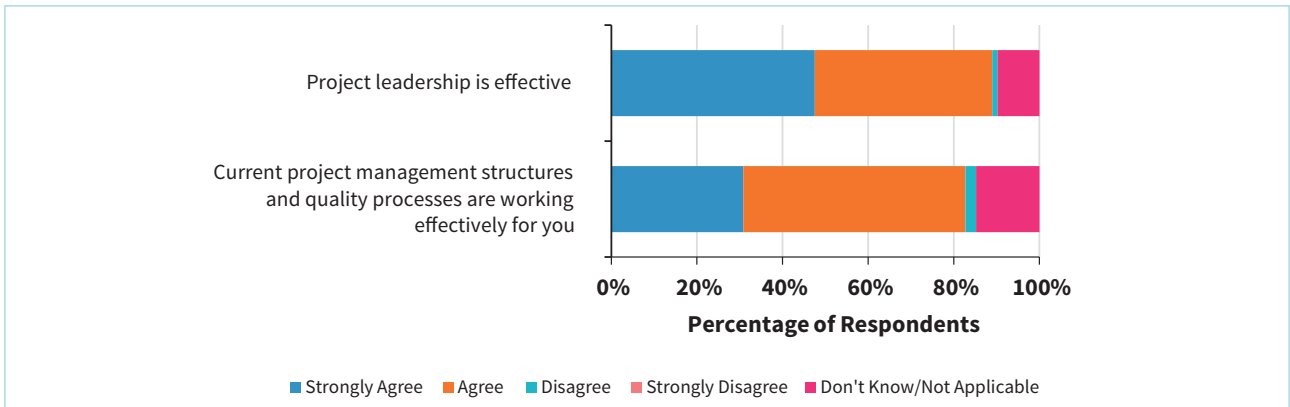


Source: Indecon survey of enterprise partners

The overall assessment for programme management among enterprise partners is a positive one, as indicated by the next figure. Almost half of respondents strongly agreed that project leadership is effective, with a further 42.5% agreeing with this. Likewise, over 80% of respondents agreed, or strongly agreed, that current project management structures and quality processes were working effectively for the enterprise partner.



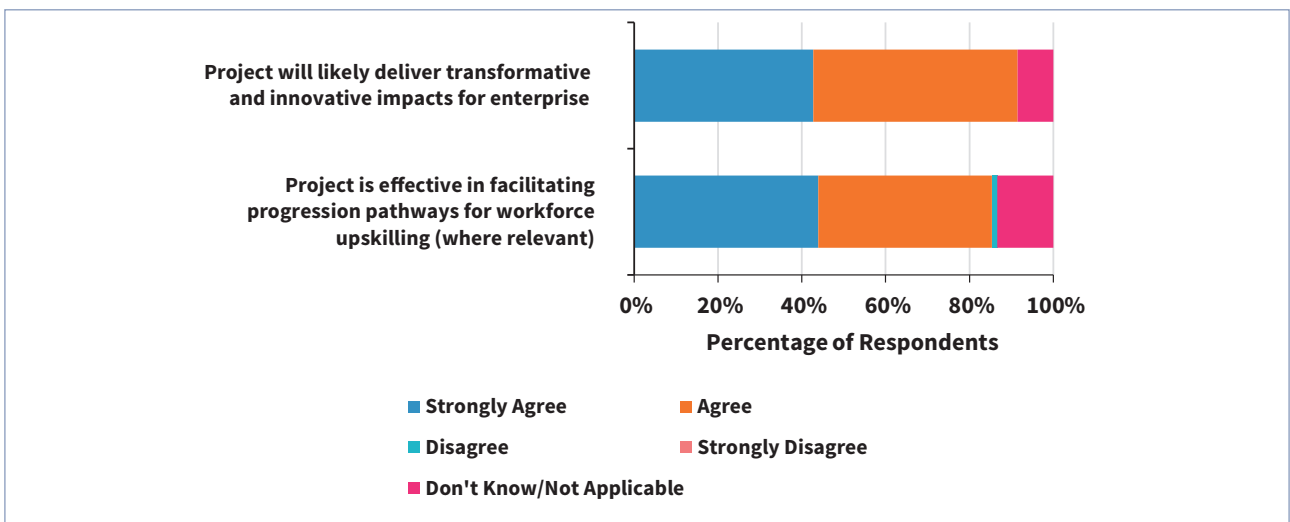
### Management-Related Survey Responses from Enterprise Partners



Source: *Indecon survey of enterprises*

Indecon also completed new research with enterprise and students regarding their assessment of the likely impact of programmes. Enterprise partners were positive about the impacts. Over 90% agreed suggested that the projects will likely deliver transformative and innovative impacts for enterprise. Enterprises also indicated their belief that the projects were effective in facilitating progression pathways for workforce upskilling.

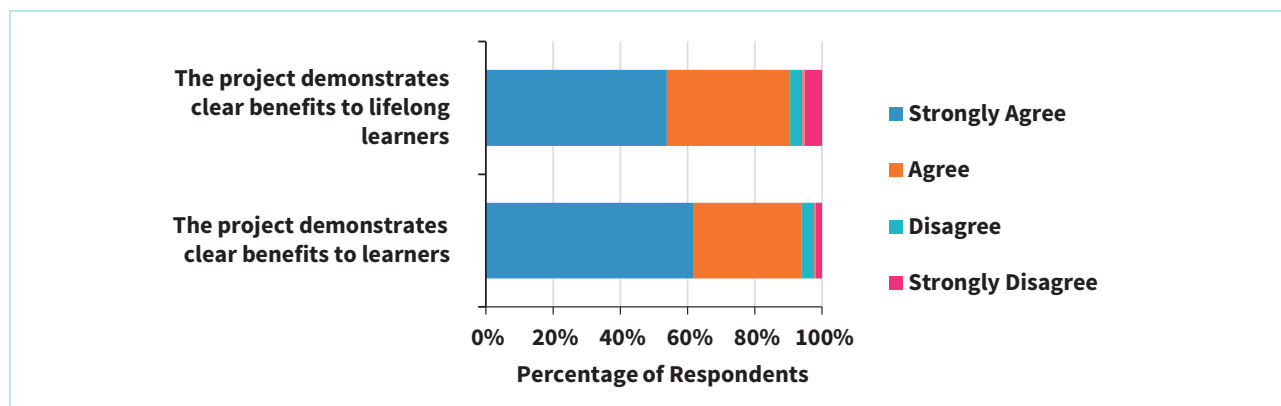
### Impact-Related Survey Responses from Enterprise Partners



Source: *Indecon survey of enterprises*

There was also a very strong response among learners about the impacts of the programme. Over 90% of respondents judged that the project demonstrated clear benefits to lifelong learners. Almost 70% of learners said that their participation in the programme had led to new collaborations or opportunities, an indication of the strength of enterprise and industry collaboration as part of the programme.

### Impact-Related Survey Responses from Learners



Source: Indecon survey of learners

The next table summarises the proportion of respondents, among learners, who agreed or strongly agreed with each of the relevant survey statements. Additionally, the strength of positive feedback from learners is indicated by the fact that almost all – 94.4% - said that they would be likely, or very likely to recommend participation in the programme to friends or colleagues. There have however been some delays in the implementation of specific projects and a comprehensive assessment of impact will only be evident over time.

Overall agreement with project implementation, management, impact and alignment among learners	
The activities planned have effectively taken place	94.8%
There is extensive public dissemination of the HCI project	63.4%
The project demonstrated innovative teaching and delivery	89.2%
The project activities demonstrate innovation and agility	91.0%
The use of innovative technologies benefited my learning	85.0%
The project demonstrates clear benefits to learners	93.8%
The project demonstrates clear benefits to lifelong learners	90.5%
The project will help my career development	90.4%

Source: Indecon survey of learners

## Overall Conclusion

Overall, the programme is exceeding its targets. It has exceeded targets on the creation of new courses (1,000), the delivery of additional student places (over 4,000) and the number of learners impacted (over 23,000).

All 24 Projects have been successfully initiated and are largely on target, with some adjustments made to timeline for a number of projects.

Governance structures have been established at project level, while the HEA has instituted a strong level of monitoring of progress against pre-agreed targets.

External collaboration with external enterprise partners is a key element for many projects, with strongly positive responses reported by industry. Internal collaboration within the HCI Pillar 3 programme between projects is also evident.

There are numerous examples of innovation in the projects, including in terms of new technologies (both hardware and software); learning methods; and curriculum design.

