

October 2015



**BIG
INNOVATION
CENTRE**

REPORT SUMMARY

Catalysts in the West Midlands 2009–2015

Classic Knowledge Transfer Partnership
Programme (cKTP) & Knowledge Exchange and
Enterprise Network (KEEN) programme



Foreword



The West Midlands does have important assets. There are considerable universities with an international reputation – Aston University, Birmingham City University, Coventry University, Staffordshire University, University of Wolverhampton and University of Worcester – hotspots of inward investment and some resilient and innovative multinationals such as GKN, Jaguar Land Rover, Carillion, Specialist Computer Holdings, IMI, Mitchells and Butlers and Titan Europe. These are potential building blocks for economic advance.

The West Midlands economy is relatively larger in manufacturing and public services than the national average, but smaller in the contribution from knowledge intensive business services and primary industries. The good news is also that despite pockets of high unemployment, falls in unemployment in the West Midlands have recently been at record rates, combined with an upturn in the private investment in manufacturing and transport sectors.

However, the West Midlands faces several regional challenges, with an employment rate at almost ten per cent below the UK average. The region has one of the country's lowest proportions of residents with high-level qualifications combined with one of the highest proportions of residents with no formal qualifications. There is only a modest business start-up to population ratio (less than half of that of London's) and the GVA (gross value added) per worker is among the lowest in the country. Clusters of economic activity have been thinning out.

To regenerate the engine of the innovative hotspots in the region requires 'thick' and iterative relationships between the top universities and top businesses in the region. The proposed collective investment vehicle must be fit-for-purpose for the region and sufficiently smart to establish new growth and/or hold on to the existing firms. Local SMEs need a smart network accessing markets, supplier networks, financial and other innovative resources, plus a pool of local skills animated by real ambition.

The under-utilised universities can integrate and act as growth catalysts supporting local development, as well as regional state agencies that are more enterprise-focused. This was the ambition of two interconnected regional development initiatives – the 'classic' Knowledge Transfer Partnership (cKTP) and Knowledge Exchange and Enterprise Network (KEEN) – which catalysed businesses in the West Midlands between 2009 and 2015.

In this report on 'Catalysts in the West Midlands 2009–2015' we report how adopting a business-centric approach and 'joint action' can vigorously promote and deliver business innovation and co-investment, skill development and job creation. This meant working with local graduates, and pulling in development funds and academics from award-winning local universities.

There is still scope for such programmes to do more to encourage start-ups and scale-ups, or boost an industry or technology, or spark the universities to become more entrepreneurial.

The imperative now is to implement a strategy that takes advantage of the enormous opportunities, animating the resources the programmes have generated over the last six years. How can we now better take advantage of emerging technologies in those areas likely to bring the greatest dividends in growth and jobs in the region? It is time to decide on the long-term ambition for the West Midlands.



*Professor Birgitte Andersen
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Two connected regional development initiatives – the ‘classic’ Knowledge Transfer Partnership (cKTP) and Knowledge Exchange and Enterprise Network (KEEN) – catalysed businesses in the West Midlands to improve their competitiveness, innovative capability, productivity and performance through the understanding, sharing and use of new knowledge, technology and skills. The core aim was to incite smart, sustainable and inclusive growth in the West Midlands region.

The cKTP programme operated during the period 2009–2013 while KEEN operated during the period 2012–2015. Both were funded by the European Regional Development Fund (ERDF) and cKTP was also co-funded by the Technology Strategy Board (now Innovate UK). Participating companies were to co-fund the initiative by around 25% in the cKTP context and 50% in the KEEN context, depending on their individual size.

In the spirit of a people-oriented approach to building the ecosystem, the programmes were implemented by developing a three-way knowledge transfer partnership between the following groups:

- Private or public business enterprises including third sector and public sector organisations. In this report we refer to them as Businesses.
- Postgraduates, university graduates, or individuals qualified to at least National Vocational Qualification (NVQ) Level 4 or equivalent. In cKTP they were employed by an academic institution, and by a business in the KEEN programme. In this report we refer to them as Graduates.
- University academics at the universities in this region. In this report we refer to them as Academics.

In this context the cKTP and KEEN initiatives worked as graduate recruitment programmes designed to give bright and ambitious graduates and individual affiliates a platform to launch their careers, while gaining sought-after experience.

In terms of practical implementation, the programmes involved Aston University, Birmingham City University, Coventry University, Staffordshire University, University of Wolverhampton and University of Worcester. These six universities supported 166 businesses across 14 industry sectors across the two programmes which involved 186 graduates.

The programmes worked by putting a recent graduate into a business to work on a strategic growth project, with ongoing support from experienced university experts. Companies would benefit from funding, allowing them to recruit talented graduates and access cutting edge university knowledge throughout the duration of the project. There was no such thing as a

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typical project, but they all had their own characteristics. cKTP projects were normally one to three years, while KEEN projects were shorter, from 6 to 24 months.

The selection criteria for the type of project being approved are slightly different for both types of programme. Where cKTP focused more on technological and innovation based projects with any type of business, KEEN also included pre-innovation projects with SMEs and micro businesses so the focus shifted to high-level research-intensive technologies.

Knowledge Exchange and Enterprise Network (KEEN)	'classic' Knowledge Transfer Partnership programme (cKTP)
<ul style="list-style-type: none"> • Total investment by funding agency: £2,384,541 • Project's average length: 14 months • Number of projects running: 125 • KEEN's total management fees: £1,625,000 • For every £1 investment made by the funding agencies, companies invested around £0.98 for the KEEN project on average. 	<ul style="list-style-type: none"> • Total investment by funding agencies: £4,483,245 • Project's average length: 24 months • Number of projects running: 57 • cKTP's total management fees: £746,817 • For every £1 investment made by the funding agencies, companies invested around £0.14 for the cKTP project on average.

EVALUATION

Big Innovation Centre has been commissioned by University of Wolverhampton, which led the key regional programmes, to independently assess the programmes' achievements and lessons learnt. This evaluation report takes into account economic impact as well as beneficiary and partner feedback and experiences, and provides evidence based suggestions on how the programme can continue to add value in the future. **The Chair of the Management Board for the evaluation was Dr Muthu da Silva.**

Evaluation of the cKTP and KEEN programmes has been conducted against the national KTP programme targets. The programmes' performance and impact is also measured in terms of benefits related to research, knowledge, innovation, markets, finance, and strategic networking. The method was a questionnaire and survey targeted at all participating partners (businesses, academics and graduates), plus we also conducted 34 in-depth interviews with KEEN participants across the three groups.

We find that both cKTP and KEEN made a difference in the West Midlands in terms of economic contribution, job creation, increased usefulness of academic knowledge, and strong interactions between local universities and businesses.

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OVERALL SUCCESS

For all parties – businesses, academics and graduates – involved in the initiatives, between 80% and 90% perceived the knowledge transfer programmes to be a success, and most would be likely to participate in such initiatives again.

BUSINESSES

Typically, businesses reported that the dedicated knowledge transfer partnership projects enabled an opportunity for business leaders to increase their knowledge, skills and strategies and improve their innovative capabilities especially. This included a range of areas, from R&D to operations, business processes and market facing customer insights. In addition, working alongside academics in the KEEN programme offered businesses the opportunity to expand their network and continue to benefit from getting input from the academics beyond the programme. In a similar vein, cKTP found that the programme helped them to form valuable relationships with other local businesses, particularly through events and enterprise activities organised by universities. For some businesses it also became beneficial, from a market competition point of view, to signal a strong university link to both competitors and clients or consumers of their products and services. Clearly, for businesses involved in such knowledge transfer partnerships financial benefit was an important factor, but was not regarded as the most crucial benefit. In today's competitive landscape, businesses try to balance between short-term financial lifts with bigger long-term benefits.

Knowledge Exchange and Enterprise Network (KEEN)	'classic' Knowledge Transfer Partnership programme (cKTP)
<ul style="list-style-type: none">• Average increase in sales in the last year of project attributed to KEEN is £261,294• Average increase in profit (pre-tax) in the last year of project attributed to KEEN is £25,761	<ul style="list-style-type: none">• Average increase in sales in the last year of project attributed to cKTP is £261,736• Average increase in profit (pre-tax) in the last year of project attributed to cKTP is £40,333
For every £1 investment in the KEEN (including management fees):	For every £1 investment in the cKTP (including management fees)
<ul style="list-style-type: none">• £4.79 increase in sales in the final year of the project• £0.47 increase in profit in the final year of the project	<ul style="list-style-type: none">• £2.84 increase in sales in the final year of the project• £0.43 increase in profit in the final year of the project

Figure 1. Summary of the benefits gained by the businesses through engaging in KEEN

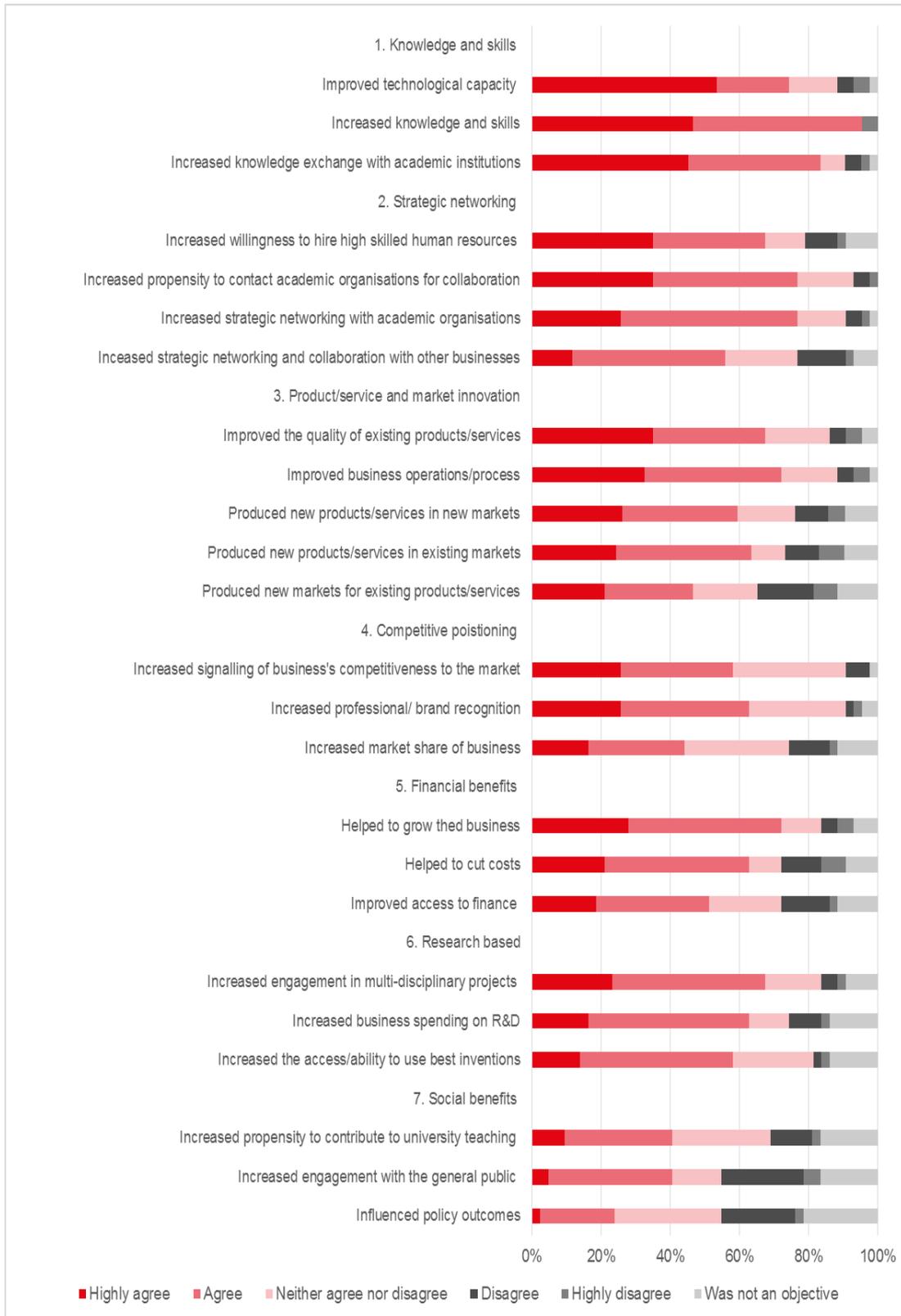
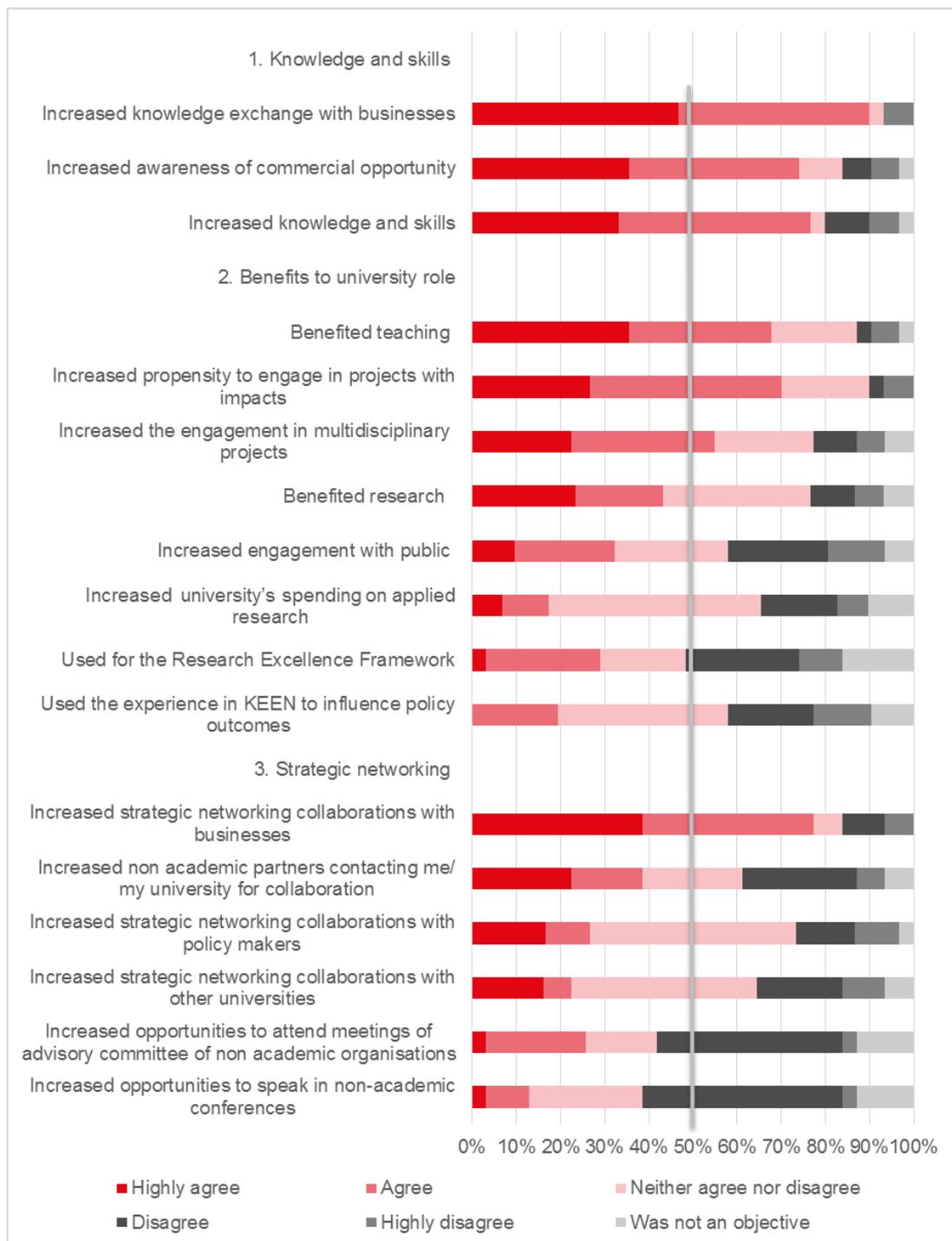


Figure 2. Summary of the benefits gained by the academics through engaging with KEEN



ACADEMICS

Academics reported how KEEN and cKTP have been key catalysts in building linkages with business and enhancing their university profession. The exposure directly to business challenges increased the impact of their research and knowledge, and built more informed academic teaching and research programmes as a result. In particular, KEEN and cKTP enabled them to develop industry knowledge with respect to business operations, competition and markets. Their theoretical research became refined through direct engagement with business challenges, and as a result academics became better at communicating academic knowledge using real-life examples in teaching. KEEN and cKTP also gave academics an opportunity to build business networks, allowing them to create impact from their research and develop their own professional network outside the university lasting beyond the project.

Knowledge Exchange and Enterprise Network (KEEN)	'classic' Knowledge Transfer Partnership programme (cKTP)
<ul style="list-style-type: none">• 90% of academics involved with KEEN report increase in knowledge and skills• 78% of academics involved with KEEN report benefits to strategic networking• 70% of academics involved with KEEN report increase in willingness to participate in commercial projects	<ul style="list-style-type: none">• 95% of academics involved with cKTP report benefits to teaching• 82% of academics involved with cKTP report benefits to research• cKTP helps academics build strong relationships with local businesses with 68% of academics reporting a potential collaboration beyond the partnership project

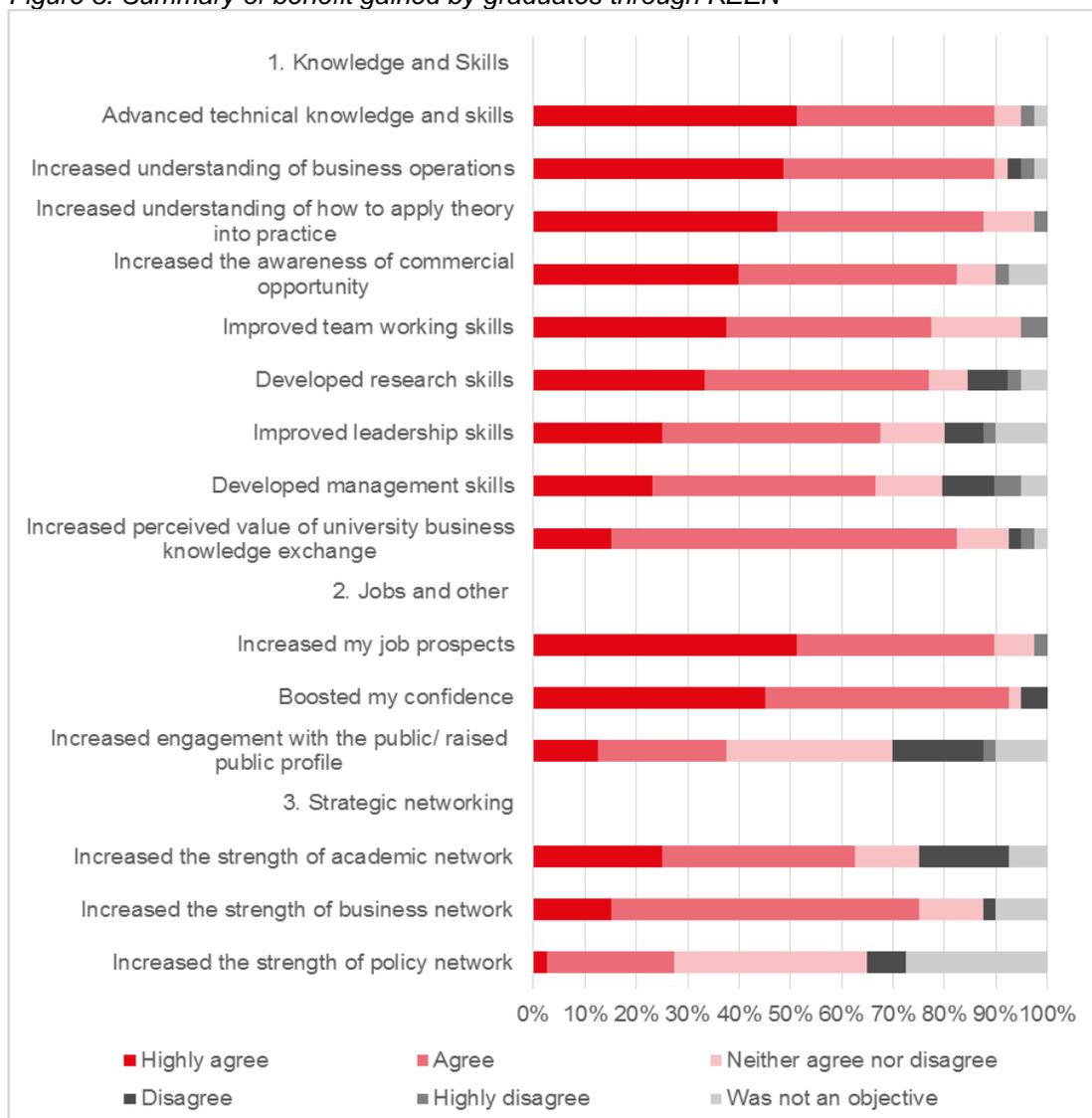
GRADUATES

Both KEEN and cKTP opened up employment opportunities and attracted talent into the region. It also attracted mature graduates as the programme provided a platform to change their career path.

Graduates developed higher qualifications, project management skills, and increased confidence levels. It provided them opportunities for building personal networks across academia and industry. The biggest skills achievements among KEEN graduates were in three areas: product development and design, R&D, and sales and marketing. The next big areas were skills achievements in ICT, business operations, as well as manufacturing processes and operations.

Knowledge Exchange and Enterprise Network (KEEN)	'classic' Knowledge Transfer Partnership programme (cKTP)
<ul style="list-style-type: none"> 90% of graduates involved with KEEN report receiving or will receive a job offer from the KEEN company gained an average salary of £22,058 after completing KEEN 	<ul style="list-style-type: none"> 73% of graduates involved with cKTP report receiving a job offer from the cKTP company 78% of graduates involved with cKTP were recruited by companies based in the West Midlands

Figure 3. Summary of benefit gained by graduates through KEEN



TRANSFER OF THE PROGRAMME TO OTHER REGIONS

As we can see from the above co-investment from businesses and financial returns to the region including job creation – plus a range of other benefits to businesses, universities and graduates – there are many good reasons to adopt the programme again and also to transfer the model to other regions. In such circumstances there are lessons learnt which can improve the programme further in a range of areas:

- Improve the administrative process: Make it less bureaucratic. *[Action: funding agency and Knowledge Transfer Manager]*
- Reduce the time it takes for businesses to hire a graduate with the scheme. *[Action: funding agency and Knowledge Transfer Manager]*
- Provide a support mechanism and training provision beyond graduates: Support to the business individuals taking part, particularly for small and micro businesses. *[Action: business community, growth hubs, and senior academics]*. Support from senior academics to mentor junior academics in order to have a bigger pool of academics doing knowledge transfer was perceived to be useful. *[Action: senior academics]*. Academics need to improve their communication skills with businesses. Universities must become entrepreneurial universities adopting better incentive structures to work with businesses. *[Action: University Vice Chancellors]*
- Introduce post project support: Continue support until the changes the project has catalysed have been implemented. *[Action: Academics and businesses leaders]*
- Improve the selection criterion to focus more on businesses that need help to grow: Small businesses found it challenging to put aside staff time to participate in the programme, so could not reap the full benefits. *[Action: funding agency]*
- Improve awareness among graduates: Better advertisement of the scheme, as well as use the opportunity to focus on final year students who could be interested. *[Action: funding agency and academics]*
- Collaboration requires a different mindset, as too much of the knowledge transfer partnership deal rests on the graduate: The graduate is not the only knowledge transfer element determining success, but all three parties (business, university, graduate) need to collaborate. *[Action: Knowledge Transfer Manager plus all people involved, including buy-in from company CEOs and University Vice Chancellors]*

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