



WorldSkills UK Annual Review

2022-23



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Foreword

Welcome to our 2022-23 Annual Review, which comes at an exciting time for WorldSkills UK, as we work with our partners to set a new level of ambition for skills in the UK.

As a collaborative four nations partnership with education, industry and UK governments, we have focussed on innovating to drive high-quality technical and professional skills to an international standard over the last 12 months. Our aim is to use this insight to help create a truly world-class technical skills system for all by working as a catalyst in three key areas:

- raising standards through international benchmarking
- championing future skills through analysis of rapidly changing economic demand
- empowering young people, from all backgrounds through competitions-based training.

The international benchmarking we undertake at global and European competitions drives forward our work in raising standards in teaching and assessment. That is why we were delighted to demonstrate the world-class talent on offer here in the UK when we co-hosted the WorldSkills Special Edition

in engineering and manufacturing. Welcoming visitors from 12 countries including Japan, Singapore and France, it was the first time we had hosted an international competition since WorldSkills London 2011. The UK delivered an outstanding performance which saw us reclaim tenth position in the world rankings. We delivered the best ever performance for the UK in digital skills, positioning fourth in the world and half of Team UK attained the world-class standard in future skills including cyber security and web technologies.

Through our WorldSkills UK Centre of Excellence, which we developed in partnership with NCFE, we are mainstreaming international best practice, helping organisations embed excellence across curriculums to meet employer and young people's needs. It is fantastic that, following a hugely successful three-year pilot programme which ended this year, we have announced that we will be opening the Centre of Excellence to all in the apprenticeship and technical education sector. To date, we have delivered CPD to over 4,000 educators, influencing the learning of over 64,000 young people. With 31 of the member institutions located in the UK Government's Levelling Up priority areas, we will continue to ensure that young people from all backgrounds benefit by supporting the development and delivery of skills-specific, industry-led and internationally-benchmarked training in key growth sectors.

We are incredibly proud that the diagnostic research that we undertake is enabling us to champion future skills. Following our report, 'Skills for a net zero economy', we have made changes to our competition based-training programmes to help boost the supply and quality of green skills. We have also expanded our career resources to make it easier for young people to access information and develop the skills needed for green careers. This forms part of our expanded careers offering on our new online WorldSkills UK Learning Lab.



Marion Plant OBE, FCGI
Chair, WorldSkills UK

This year we will continue to empower young people through our competitions-based training and careers offering, building on the recent milestone of engaging one million young people since 2017. We are working with partners to drive positive change by showcasing and celebrating those championing equity, diversity and inclusion in the technical education sector. Together we want to tackle vocational snobbery head-on, allowing us to regain a sense of pride in choosing high-quality technical education and apprenticeships as routes to real success in work and life.



Ben Blackledge
CEO, WorldSkills UK

We are hugely thankful to all our partners in England, Scotland, Wales and Northern Ireland for their support. By working together, we believe we can make a world-class skills system a reality across the UK's regions and nations, delivering success and prosperity for more young people, educators and employers.



WorldSkills UK

WorldSkills UK is a four nations partnership between education, industry and UK governments. It is a world-class skills network acting as a catalyst for:

Raising standards: through international benchmarking and professional development.

Championing future skills: through analysis of rapidly changing economic demand.

Empowering young people, from all backgrounds: through competitions-based training and careers advocacy.



During the year we made great progress towards these ambitions

our external research has shown that WorldSkills UK competitors earned

60%

more than their peers

March 2023 saw us reach our goal of engaging with one million young people over six years. We:

- engaged with 108,000 young people on skills development or careers advice programmes
- provided continuing professional development (CPD) to almost 4,500 educators in technical skills and education including 1,700 through the second year of the Centre of Excellence programme
- finished tenth in the global finals of the WorldSkills competition and fourth in digital skills competitions
- our external research has shown that WorldSkills UK competitors earned 60% more than their peers
- worked with 1,500 partners across education, business and governments, regionally, nationally and internationally.



We harnessed and applied international best practice insights to improve standards in UK skills systems

We published a new report explaining how our international benchmarking process works, featuring sectoral case studies to inform the development of Higher Technical Qualifications (HTQs), T Levels and apprenticeships in science, technology, engineering and maths (STEM) subjects. This report shows how we are improving standards in high priority areas in the UK (including in digital construction, robot systems, electronics, cyber security and computer aided design).

We signed **strategic Memorandams of Understanding (MoUs) with international WorldSkills partners** Finland, the Netherlands and Kenya, bringing our total international partnerships to seven, to drive innovation and excellence in the quality and delivery of further and technical education in the UK in areas including:



Aircraft manufacturing competition, Wales

- digital and future skills (Chinese Taipei, Korea and Japan)
- green skills and STEM Skills (France and Kenya)
- pedagogical developments and linking education and Industry (Finland and Netherlands).

We have continued to profile the role of WorldSkills Occupational Standards in the design and development of qualifications across T Levels, apprenticeships and HTQs, with over 40 examples of how these have been integrated into qualification design

We hosted two global finals of WorldSkills competitions in Wales: Aircraft maintenance and manufacturing team challenge, bringing together 14 countries (see case study page 22).



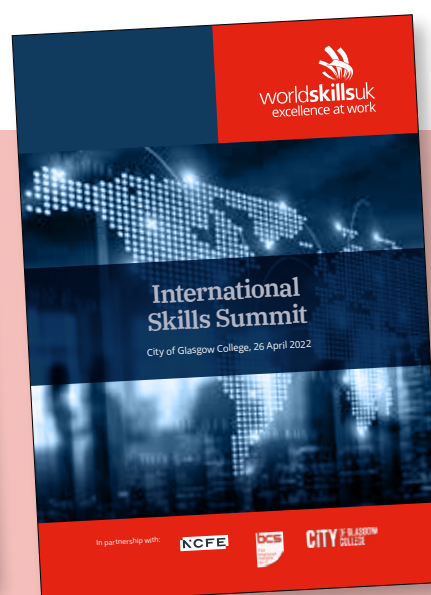
We worked with **industry, education and governments** to support the creation of a pipeline of future workers in skills sectors critical to the UK's economic development

83%

of respondents said they had a better understanding of world-class skills

Key activities included:

- our **Independent Skills Taskforce report** with key findings showing that having a high-quality pipeline of skills is very important for attracting and retaining international investment and that improving our skills offer to international investors could help level up the UK economy. As a result, we have been working with the Department for Business and Trade and with combined authorities to support world-class skills development and introducing more STEM competitions into our portfolio of skills (renewable energy and additive manufacturing)
- our **third International Skills Summit** to promote our insights on the need for a world-class skills economy, where we launched the final report of the Skills Taskforce for Global Britain. This enabled the audience to better understand how we are delivering world-class skills to help build a skills economy in the UK and how we are providing opportunities for future collaboration and partnership working. Hosted by City of Glasgow College, Scotland, 83% of respondents said

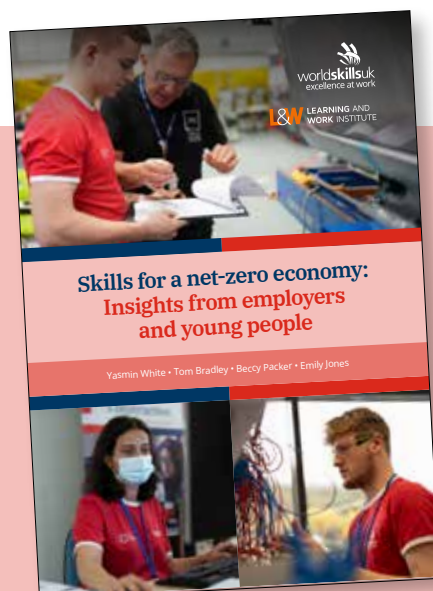


It is also grounding the actions we are taking to help the UK reach net zero

...our programmes are helping to spread opportunity and boost productivity

they had a better understanding of world-class skills after the event and 93% rated the event as good/excellent

- **'Skills for a net zero economy: Insights from employers and young people'**. This report shone a light on unmet employer demand for skills which can help reduce emissions, as well as barriers preventing young people from fulfilling their aspirations for green careers. It informs actions taken by stakeholders across education, industry, and governments, and gained national press coverage including in the Financial Times. To help promote green skills we are now taking forward a new skills competition programme in renewable energy
- our partnership with the **High Value Manufacturing Catapult** enabled us to review our national and international skills competition programmes and assess their suitability for enabling young people to gain skills relating to electrification
- a new prospectus **'Levelling up through skilling up: How developing world-class skills can spread opportunity and boost productivity'** demonstrating how we are helping to spread opportunity and boost productivity in some of the most deprived parts of the UK
- developed strategic partnerships with several expert organisations, including the Association of Colleges, the Skills and Education Group and the Multicultural Apprenticeship Alliance, to ensure that equity, diversity and inclusion are at the forefront of our work. We shared key initiatives, events and best practice, linked respective networks, and ran EDI focussed workshops at CPD events for educators. Our annual Equity, Diversity and Heroes awards had a record 199 nominations
- worked with **industry partners** to deliver 10 competitions, with those partners providing funding, industry expertise and marketing to attract competitors, enabling us to introduce new competitions in additive manufacturing and renewable energy.



Providing world-class professional development for educators

94%

of participants in the second year of the Centre of Excellence cohort were satisfied with the programme

74%

of participants said that the programme had a major positive impact on the quality of their teaching, learning and assessments

Milestones achieved:

- provided CPD to 4,470 educators through our programmes, a 9% increase from 2021, enabling them to embed world class practices into their teaching, through new pedagogical and mindset techniques, to inspire learners to strive for excellence in technical and vocational skills
- delivered the second year of the **Centre of Excellence (CoE)** programme (see case study page 19), in partnership with NCFE, 2022-23 with:
 - over 4,000 educators from 48 colleges and training providers, training providers participating, reaching over 64,000 young people
 - positive references in two Ofsted reports recognising the programme methodology as reflecting the needs of industry and having an engaging and positive effect on learners
 - 31 organisations in the network from Levelling Up priority areas and activities focused on supporting learners to develop knowledge skills and behaviours to become work ready
 - 94% of participants in the second year of the programme were satisfied with the programme
 - 74% of participants said that the programme had a substantial or major positive impact on the quality of their teaching, learning and assessments
 - over half of educators reported a major or substantial change to learners' understanding of what is needed in the workplace, on their confidence, engagement in lessons and on their motivation to improve their work.
- delivered the second year of our **Innovation Network** with 100 educator members. They took part in sessions such as increasing engagement in National Competitions and progression to higher education and led a number of development projects on STEM and green skills

Centre of Excellence

Total achievements over the pilot programme 2020-23

48 colleges and training providers

>4,000 educators

>64,000 young people



Held our second CPD Live event to an audience of almost
600

- deepened our existing **international partnerships** with WorldSkills members, building our knowledge of their competitions in our priority skills and using these to align our competitions at an international level
- participated in knowledge exchange visits with our international partners, including a study tour to the Netherlands taking educators from four colleges and one independent training provider to observe the finals of their national skills competitions. Our UK educators presented their experience of CoE to representatives from five countries, swapping ideas and developing national and international communities of best practice
- launched our new online platform '**Learning Lab**' (replacing the previous Skills Development Hub), providing 1,200 users with easy access to world-class teaching and interactive training resources, including tools to improve teaching techniques, mindset skills and careers education
- held our second **CPD Live event** 'Developing excellence in teaching and training' in partnership with the Education and Training Foundation (ETF) with an audience of almost 600 educators. The focus was on helping educators embed world-class practice; learn more about the latest advances in learning technologies; and how to support learners from underrepresented groups
- provided high-level specialist technical training events, including in conjunction with our partner FESTO, a global automation company, using international best practice to raise teaching standards in the field of **Industry 4.0**. In Northern Ireland, Northern Regional College has made extensive use of industrial robotics equipment, in delivering masterclasses, Foundation Degree programmes and both upskilling and and in upskilling and re-engaging learners alongside training Squad UK members alongside training Squad UK members.

Case studies



Raising teaching standards through the Centre of Excellence

2022-23 saw further strong progress in the delivery of the Centre of Excellence professional development pilot programme for teachers and trainers, delivered in partnership with NCFE. The programme was well received by educators. Carl Parrish, Lecturer in Fabrication & Welding at Coleg Cambria, Wales, said “the programme has opened up a whole new perspective of what ‘tools’ the learners/competitors will need to move from competence to excellence”. Elaine O’Mahony, Lecturer in Biology and Chemistry at Southern Regional College, Northern Ireland told us “I learned that changing the complexity, time and expectations of our students did indeed raise our standards and the expectations of our learners”.



Following the success of the three year pilot we have secured a further three years of funding, through our original partners

NCFE along with new partners, the Skills and Education Group and Autodesk, in addition to government contributions. This allows us to expand the programme to give access to world-class teacher training to all technical and vocational educators across the UK. In addition, the programme will develop further, with networks developed to foster collaboration between leaders in colleges and providers, as well as education institutions having access to international best practice and industry engagement in priority skill areas in digital skills, advanced manufacturing and net zero.

Raising quality through competition based training

Delivered a national skills development programme through national and international competition based training that raised the skills levels and career readiness of young people across the UK:

involvement
in competition
programmes
boosts salary
prospects
by up to
60%

- 5,290 young people registered for 62 WorldSkills UK National Competitions in 2022; an increase of 75% on 2021. Colleges were very well represented with 78% taking part and the North West of England was the region/nation with the highest number of registrations, followed by Wales. Registrations showed an increase in the proportion entering competitions in higher-level technical skills, such as industrial electronics, industrial robotics, automotive technology, web development and cyber security; 74% more registered in STEM and digital skills in 2022 than in 2021

- evidenced the value of skills competitions via independent analysis by Frontier Economics which found that involvement in our national and international competition programmes boosts young people's salary prospects by up to 60%

- the proportion of registrants from ethnic minorities rose to 12%, from 10% in the previous year, while the proportion of registrants from areas of deprivation increased from 26% to 28%. 100 young people facing barriers to taking part in competitions were supported through our Competitor Support Fund

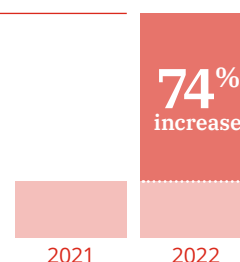
74%
more students
registered
in STEM and
digital skills in
2022 than
in 2021

- 480 young people progressed through the national cycle and took part in live National Finals in six college venues, in all UK nations and at one industry partner venue (Fanuc). They had very positive feedback from their experience:

- 86% stated that their technical skills had improved. 82% felt that they could apply the skills that they developed through skills competitions to their education, work or other parts of life

National competitions

5,290 young people
registered



Team UK

35
competitors

29
skills

26
cities

15
countries

- 85% said that taking part in competitions had motivated them to continue their current course or qualification and agreed that their personal and employability skills had improved.
- we developed and launched our competition-based training resources consisting of online tasks and assessments covering 27 skills, with 410 young people being benchmarked through this pilot programme (see case study page 21)
- delivered Foundation Skills Competitions in eight skills, from media to horticulture, enabling 130 SEND learners working towards an entry level 3 or level 1 qualification to develop both their technical skills and wider skills for work, personal, social life and independence
- through our Inclusivity in Excellence project, we worked with 11 colleges and 550 young people in disadvantaged areas in the UK, using competition-based training to benchmark their skills against national standards, and encouraging their participation and achievement in apprenticeships and technical education
- participated in the **WorldSkills Competition international finals 2022 (Special Edition)**:
 - 35 competitors in Team UK took part in 29 skills across 26 cities in 15 countries
 - two of the 27 skills competitions took place in the UK (Cardiff and Wrexham)
 - Team UK achieved two gold medals, three bronze medals and 12 Medallions of Excellence
 - the UK reached 10th place in the world across all competitions (out of 58 countries) and fourth place in digital skills competitions
 - young people from Scotland demonstrated their excellent digital skills at WorldSkills UK, achieving Medallions for Excellence in both 3D digital game art and digital construction
 - 100% of Team UK survey respondents said both their technical skills personal and employability skills had improved because of their competition journey; and that they were inspired by their WorldSkills experience.
- started the new **International Competition cycle** with the announcement of Squad UK for the next WorldSkills finals (Lyon 2024) – 71 young people, representing 26 skills, including new skills in renewable energy and additive manufacturing. 37% are apprentices, 6% are ethnic minorities and 32% are female.

Case studies



Achieving world class standards through international benchmarking

As part of WorldSkills' '2022 Special Edition', global skills competitions held in 15 locations across the world, WorldSkills UK hosted two finals, the Manufacturing Team Challenge and Aircraft Maintenance, holding these at centres of manufacturing and engineering excellence in Wales at Cardiff's International Centre for Aerospace Training and Coleg Cambria's specialist centre for Aerospace.

They shone a spotlight on UK manufacturing and engineering skills; enabled WorldSkills UK to showcase the UK's strength in priority sectors and helped put Wales on the global map for technical and vocational education and training (TVET). They also enhanced the close working relationship between WorldSkills UK and Inspiring Skills Excellence Wales and the Welsh Government, who used their strong networks and vast experience to help deliver high-quality skill competitions.

Case studies



We used the focus of the Manufacturing Team Challenge to bring together small businesses to see competitors in action and discuss sector challenges and opportunities. The engineering skills shown at the aircraft maintenance competition became a national talking point with the Royal Air Force tweeting their support. Crowning the event was the UK winning the gold medal with Ewan Payne, UK Team competitor in Aeronautical Engineering. He showed that he had the mindset, commitment and determination, as well as world-class technical skills, to be a leader in his skill.



For educators, WorldSkills Competitions provide a platform where the UK demonstrates and shares technical and vocational skills excellence. They are opportunities for us to benchmark UK skills on the international stage and to share best practice, which we do through the Centre of Excellence professional development programme for teacher, tutors and trainers. This programme inspires educators in the TVET sector, and improves their skill levels, raising standards and aspirations.

The sense of national pride at the events was palpable. Parisa Shirazi, Director of Standards at WorldSkills UK reflected, "Everything we do at

WorldSkills UK is about finding ways to show the value of TVET and how it supports future growth. Special Edition did just that. Competitors became role models for skills excellence; training experts and educators observed new techniques and innovations; and the unique format offered new opportunities for collaboration and knowledge sharing."

Increasing the prestige of technical and vocational careers

Delivered a set of activities that highlighted the wide range of opportunities that apprenticeships and technical skill pathways can offer young people:

Spotlight on Careers talks

reached over
7,000
young people

Nearly
29,000
young people

benefited from
engaging with our
online careers
advice resources

- **provided over 43,000 young people aged 14 plus** with high quality encounters through our careers resources and activities. 71% believed these improved their knowledge of technical and vocational training
- **inspired more than 5,300 young people** who saw their peers reach excellence in technical skills at the UK national skills finals and medal ceremony to think about technical career pathways
- relaunched our **Spotlight on Careers** talks, highlighting four skills sectors, engineering and manufacturing, digital, construction and creative, and their pathways to careers, involving **over 7,000 young people**
- relaunched our **Skills Champions programme** with over **40 competition alumni** delivering careers activities to **more than 1,700 young people**, through careers talks and inspirational activities at national and local events across the UK (see case study page 17)
- reached **over 150,000 young people** through our communication activities, including website and social media, to inform them about the different career opportunities available in industries that are vital for economic growth.



Case studies



Changing lives through world class competitions

Dan McCabe, Skills Champion, Vehicle Artist at Cloud Imperium Games

"My competition journey started in college through an internal competition which led to me taking part in the WorldSkills UK national finals in 2015, where I won Gold in 3D Game Art and from there to representing the UK at EuroSkills in Gothenburg 2016, where I again won Gold.

My competition experience was one of me finding myself and learning who I was. I wanted to work with computers in a creative way, if possible, using 3D art or animation. As I went through my competition journey I began to experience who I was and, although stressful and demanding, it was worth the investment.

Competing helped me to get work ready as it gave me technical skills to industry standard way before I would have achieved them through a traditional educational pathway. In addition gaining employability skills, like communication and teamwork, really helped me to develop. It was hard to balance competing and training with trying to establish myself in a new industry which is highly competitive, but once I learned to navigate this, I soon began reaping the rewards of what I had invested.

Case studies

Competing definitely positively impacted me personally. I made lifelong friends and was able to network professionally which jump started my career. I have been able to use the skills gained across my career, for example, to take on a leadership role at work and take real ownership over my work, as well as be a guiding hand to new starters within the organisation and industry.

Competing teaches you how to adapt yourself in high pressure situations such as meeting deadlines, which is key in my work. As a result, I know how to handle myself and these situations. I approach challenges and difficulties with a positive outlook and problem solving mindset.

Across a range of industries and countries I've seen my peers enter into incredible roles at major organisations or starting their own companies in some cases with great success.

Competitions haven't just made a difference to my life; they created my life and forged me into the person I am today and I am proud of who I am today."



Dan's testimony highlights some of the amazing value of competitions. Independent research has also evidenced some of the other long term benefits of competitions. Analysis by Frontier Economics found that young people who have been involved with WorldSkills UK Competitions earn around 60% more than their peers who have not taken part. They also reported that average differences in days worked per year were around 30% higher for those who had taken part in competitions than similar subsets of the UK population.

Dan competing at EuroSkills in Gothenburg 2016

Case studies

Embedding competition based training across Oldham College

Joanne Manship, Head of Faculty Digital and Creative at Oldham College

Oldham College takes a whole college approach to embracing a culture of competition, inclusion and the WorldSkills UK competition process. Participation in WorldSkills UK's competitions allows us to promote excellence and high expectations for all our students. Our diverse community of students all take part in a process, and this is crucial to enabling all students, no matter what they study or whatever their background, have this opportunity to achieve excellence, build confidence and showcase their skills to peers and employers.

During the academic year, we hold 'Oldham Skills Week' where all our students complete in some form of competition in and out of their workshops and classrooms. Students also experience pressure-testing during assessments in whatever subject and level they study, and, annually, students take part in the Greater Manchester Colleges Group competitions. Medals and award ceremonies celebrate students' achievements. Our curriculum staff and industry partners devise competitions and tests that judge students' skills and knowledge, and where possible we benchmark competitions with WorldSkills UK criteria. This gives students that thrive in these events the opportunity to take the next step and register with WorldSkills UK. Tutors anticipate and acknowledge any barriers that may impact on a student's decision to take part and actively support the student to remove these barriers and instil the belief that they can participate.



This is all supported by a wider support system at a senior level who ensure the competition agenda continues throughout the year at Oldham College, using marketing to promote our successes and milestones. A project meeting group establishes and monitors targets, including those connected to our underrepresented students, all feeding into wider meetings at senior and middle management levels. Supporting and actively encouraging underrepresented groups of students and ensuring all our students in each industry area are represented in this journey is an intrinsic part of this process and the students' journey to excellence.



Funding and resourcing

We had a successful year financially, with continued diversification of our product range and further growth in partnership working. We leveraged significant funding and resources against our grant income from the Department for Education (DfE), including from commercial and partner organisations, and other UK governments and for the first time, non-core government income exceeded core government income.

Our balance of funding was 51% of non-core income against 49% core DfE grant funding, demonstrating the significance of non-core investment. This is from a mix of effectively maintained and, both existing and new, relationships with businesses and providers, and investment partnerships based on the value and relevance of our product range and our growing impact. In comparison, in 2021-22, the ratio was 43% other income vs. 57% core DfE grant income. Achieving this strong balance of funding is only possible because of DfE's investment in core funding.

We further progressed a number of initiatives in conjunction with funding partners during the year, especially in relation to FE workforce development, including completing the third year of the Centre of Excellence and our major online CPD event.



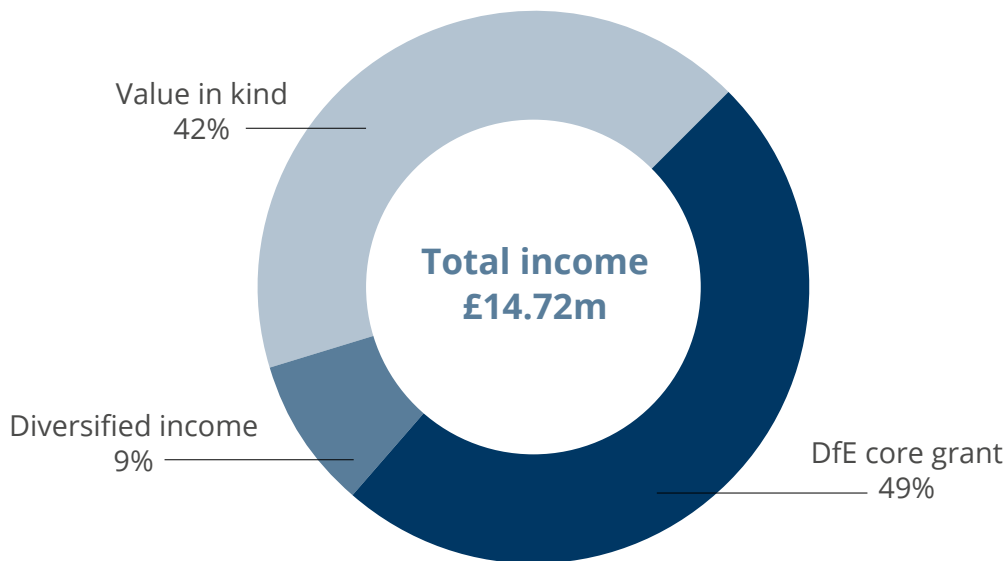
We piloted a regional model of national skills competition finals and hosted some of the WorldSkills international competition finals, and we continued to produce high profile primary research and insights work to inform the policy and practice in skills system development.

During 2022-23, we brought in over £7.56m of diversified income, including £860k of direct cash income from commercial investors; £400k cash income from Scotland, Ireland and Wales; and £6.3m in co-investment of resources, materials and equipment. This co-investment was achieved through significant funding and resource contributions from colleges and employers.

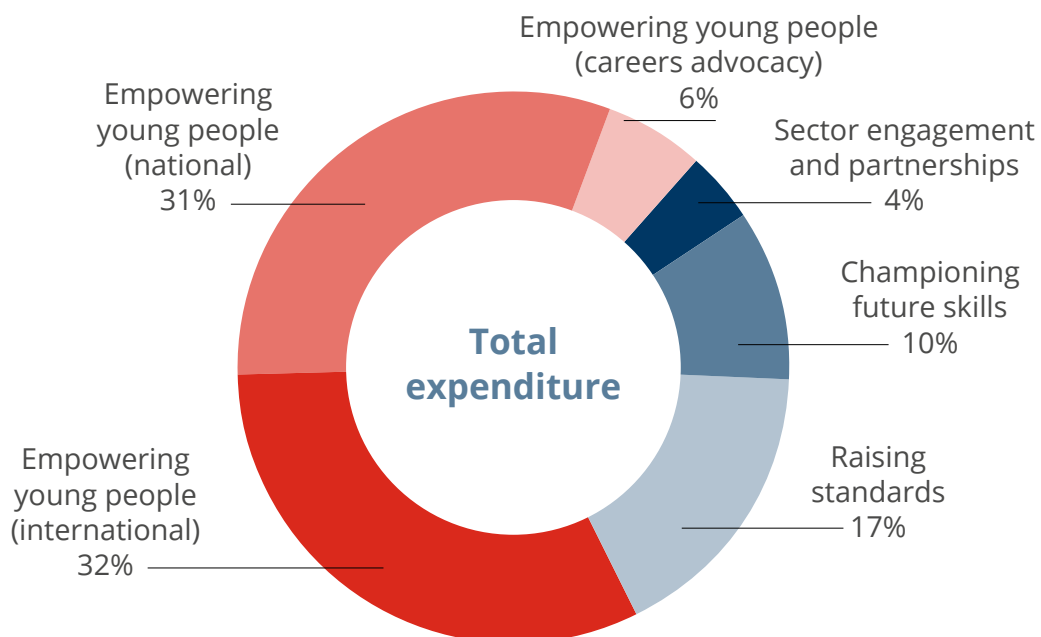
We are in a strong position for future growth and further diversification of funding. We have a clear focus on improving quality and standards in technical education and skills to better meet future economic demands. We are continuing to develop programmes and products to increase the impact and reach of our activities and add more value to the technical education system.

Note: Co-investment (value in kind) calculations are estimates based on information from donor partners. This amount is included in the income chart.

Total income 2022-23

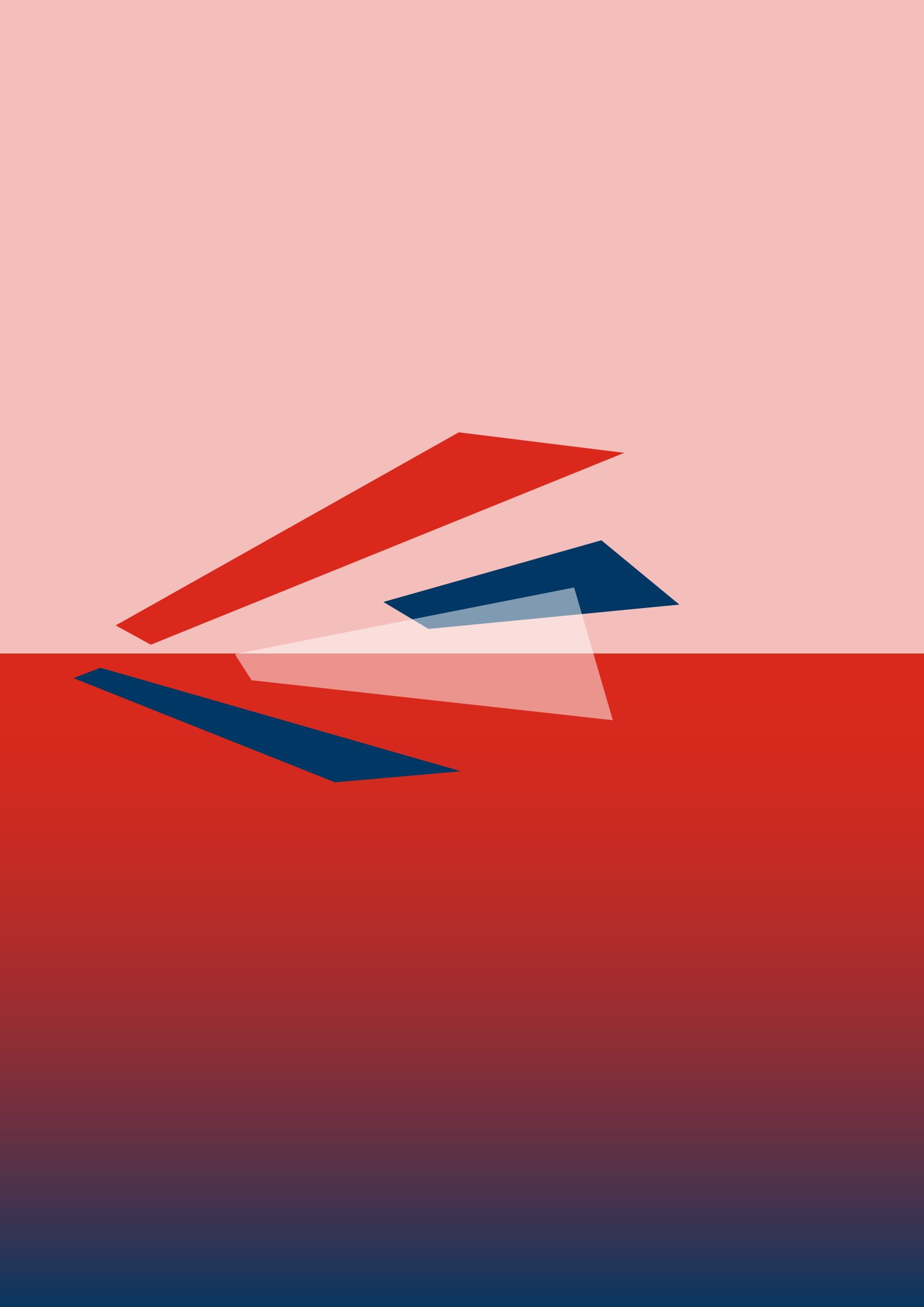


Total expenditure 2022-23



Core partners and supporters

3DGBIRE	Hikvision
Air Products	Hospitality Steering Group
Amazon	ICAEW
Association of Apprentices	Inspiring Skills Excellence in Wales
Association of Colleges	Institute for Apprenticeships and Technical Education
Association of Employment and Learning Providers	Kaplan
Autodesk	Learning & Work Institute
BAE Systems	Make UK
BAFE Fire Safety Register	Middlesex University
Baker Hicks	National Careers Week CIC
Balfour Beatty	NCFE
BCS	New College Lanarkshire
BFI	NOCN
British Council	Northern Ireland Executive
BSIA	Offshore Renewable Energy Catapult
CBI	Omron
CITB - Skillbuild	REC
Collab Group	Royal Society of Chemistry
Coleg Cambria	Skills and Education Group
College Development Network	Skills for Security
Colleges Scotland	SKOPE
CSL	STEM Learning
Education & Training Foundation	Swansea University
Energy Skills Partnership	Texecom
Engineering Skills Competitions	The Careers & Enterprise Company
EY	The Science Council
Fanuc	UVAC
Festo (Didactic Services)	Warners Group
Frontier Economics	Welsh Government
Gatsby Foundation	Youth Employment UK
Glasgow Clyde College	





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