Cross-institutional collaboration supporting physics graduates into technical careers

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www.wripa.ac.uk

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Office for Students

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In Physics…..

- Physics-based technical industries contribute significantly to wealth creation in the UK
- We know that companies have difficulty recruiting physicists
- We know that certain skills are of economic benefit to our local region.
- Students are often unaware of (regional) opportunities available
- Emphasis on academic rigor not graduate attributes

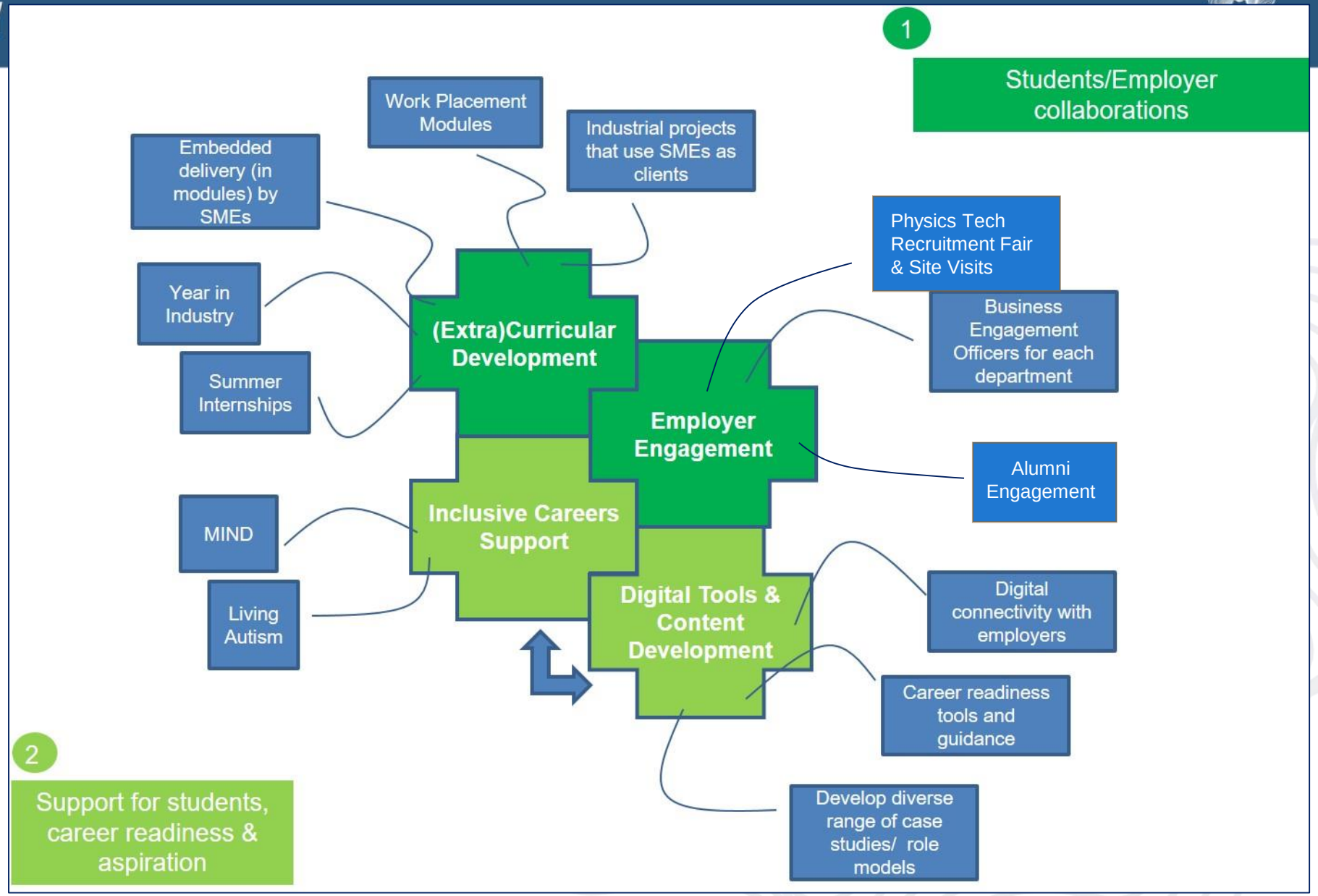
Key aim: (a) Improve links between academic physics departments and industry & **(b)** Prepare UG students for a technical career.

Four key approaches: Curriculum Development, Employer Engagement, Careers Support and Digital Career-decision tools

Core WRIPA Team – catalysing change

- ~25 individuals – academic, careers-focused, business engagement & web and content development staff
- Catalysing change in the physics curriculum is driven by academic colleagues in partnership with professional staff
- Careers guidance contextualised in physics and mathematics
- Built a ‘physics-relevant’ employer network ~900 employers

WRIPA's Approach

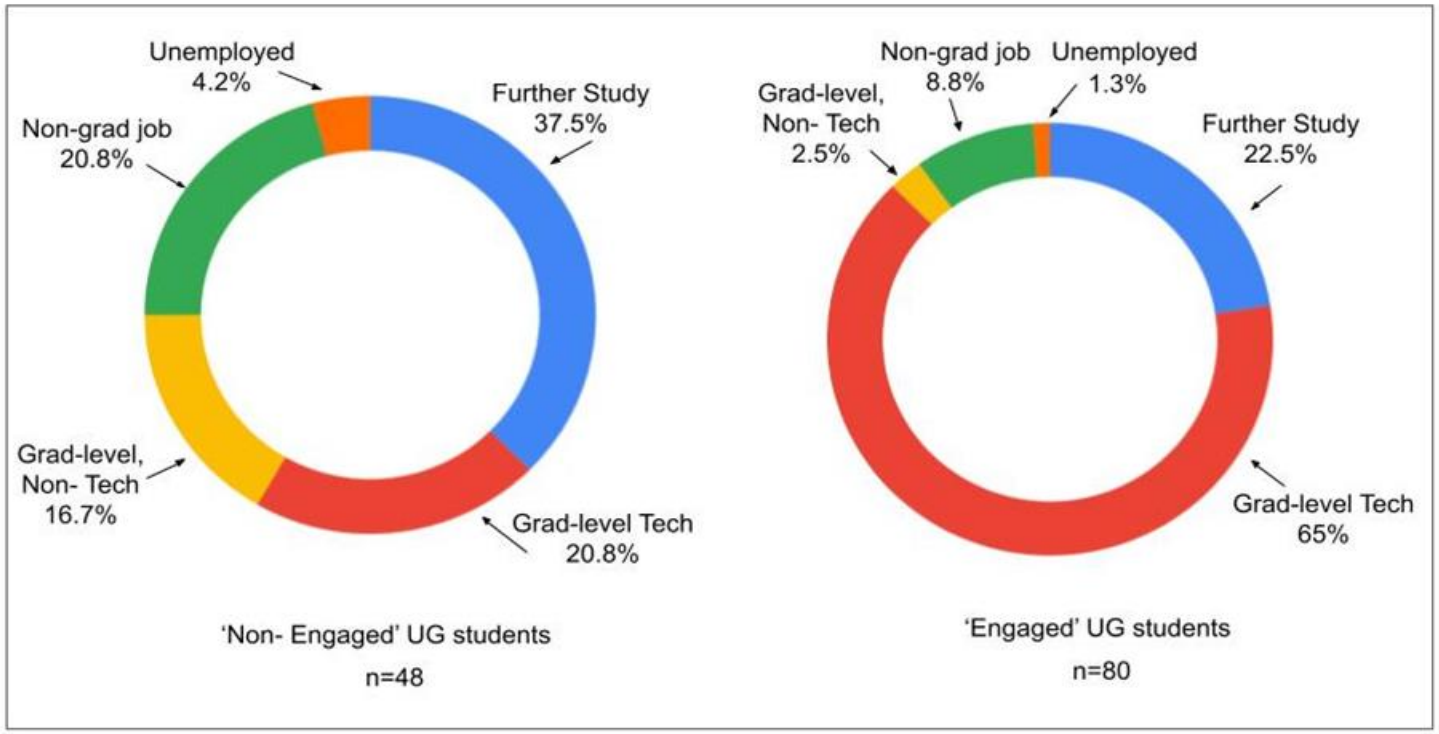


Number of students and employers involved in WRIPA project activities (Sept 2019 – Dec 2022)

STUDENTS		EMPLOYERS	
How many (individual) students were involved in the various curricular activities which were run as a result of this funding?	~1503	How many (individual) employers were involved in the design and delivery of curricular activities run as a result of this funding?	**100 (28)** – parenthesis indicates regional employers
How many (individual) students were involved in the various extra-curricular activities which were run as a result of this funding?	~9172 (this includes 6.4K users to the WRIPA website)	How many (individual) employers were involved in the various extra-curricular activities run as a result of this funding?	**202 (79)** – parenthesis indicates regional employers

- 238 students in work-based learning
- 147 in regional employment
- 77 employers consistently engaging with WRIPA to undertake curriculum development activities

Snapshot of WRIPA Impact – University of York



'Engaged students' (90%) more likely to be in graduate level roles than non-engaged students (75%)

'Engaged students' more like to be in graduate-level technical work

'Engaged students' have a higher level of career readiness reflected in the lower fraction of students in non-graduate jobs compared (8.8%) with 'non-engaged' students (20.8%).

York physics graduate outcomes determined from LinkedIn for graduating years 2021 & 2022.

Student Feedback – changing students' mindset

"Before enrolling in University, I was quite sure that I wanted to do a bachelor's, a master's, and a PhD. However, I used the WRIPA Physics Careers Discovery Tool to help narrow down my choices. Technical Author immediately jumped out at me. I looked into the field extensively and deemed that it was a perfect combination of writing (which I love) and employing technical skills on a daily basis, while constantly learning. WRIPA quite literally changed my life."

What is there still to do?

Equitable by design – how do we support all our students to develop professional experience/skills?

Physics students have a strong affinity to the discipline - “I only want to learn physics”

Disparity in graduate outcomes – the anchor of emotional geography

Any Questions?

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