Engaging with (local) employers

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Outline

- Introduction

  - Employability at Lancaster
  - Why local employers?

- Physics based initiatives

  - Industrial Group Projects
  - PLACE
  - (WP) interns
  - Guest lectures

- Faculty based initiatives

  - FST internship scheme
  - FST careers fair
  - EDF placements

- Summary

Employability at Lancaster

- Most activities (employer talks, workshops, recruitment fairs *etc.*) 'branded' as

Physics Employability Booster Program

Employability Champion:
Dr Sam Jarvis

- 4th in UK for graduate prospects (Complete University Guide 2020)

- 89% positive destinations (Complete University Guide 2020)

Why local employers?

- Many of our students want to stay locally after graduating

- Local engagement is part of Lancaster University's strategic plan

3 **Priority 3**
Engage actively with students, businesses and our communities

"Lead on renewal and growth of our local community to create value for Lancaster and the North West region"

"We will strengthen these [HEBCI] ties, building innovative and interdependent relationships that inform and stimulate our research and teaching"

- Teaching/training-led engagement activities often 'spill over' into research (& vice versa) (numerous examples)

- (KEF and TEF, maybe REF)

Industrial Group Projects

- Introduced in 2012/13 following a call from the IOP (STEM funding)

- The first group project module in Lancaster Physics: soon followed by theory, particle physics, cosmology and (very recently) astrophysics for students on themed degrees

- 30 credits (largest in the UK)

- Practical part runs Week 1 to Week 15 (=1.5 terms), (at least) 1 full day per week

- Kick-off on first day with industrial partners

- Informal presentations by student teams at the end of each lab session

- Planning document submitted after Week 4 session

Industrial Group Projects

- *Individual* report (50%)

- CA mark assigned by supervisor (MH)

  - Log book (10%)
  - Group mark (4×5%)
    - Management
    - Planning
    - Milestones & deliverables
    - Resources

- Viva (10%)

- PLACE (10%)
More on this shortly...
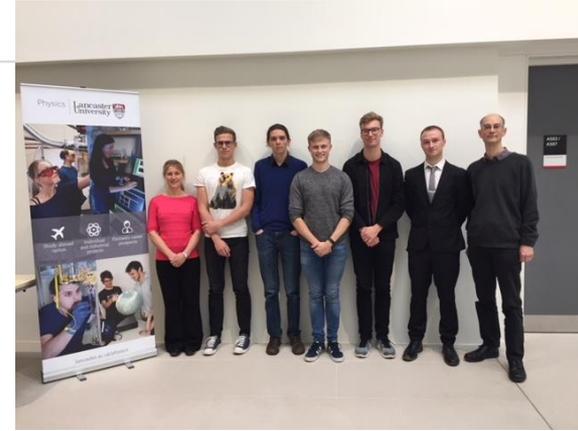
Industrial Group Projects

Year	# of IGP students	# BSc IGP students	# MPhys IGP students	Companies
2012/13	10	6	4	Tyco, Unilever
2013/14	9	2	7	Tyco, Technical Fibre Products [TFP]
2014/15	12	3	9	BAE, Kleentec, DefineX
2015/16	17	10	7	Econova, Norvap, TCL Cumbria, TFP
2016/17	21	8	13	ABBE, Econergy, Exova, Extreme Low Energy, TFP
2017/18	7	7	0	TFP, Precision Polymer Engineering
2018/19	10	6	4	Scalebreaker, Siemens Subsea, TFP
2019/20	26	10	16	Forsberg Services, Siemens Subsea, TFP…?

All local companies apart from Tyco

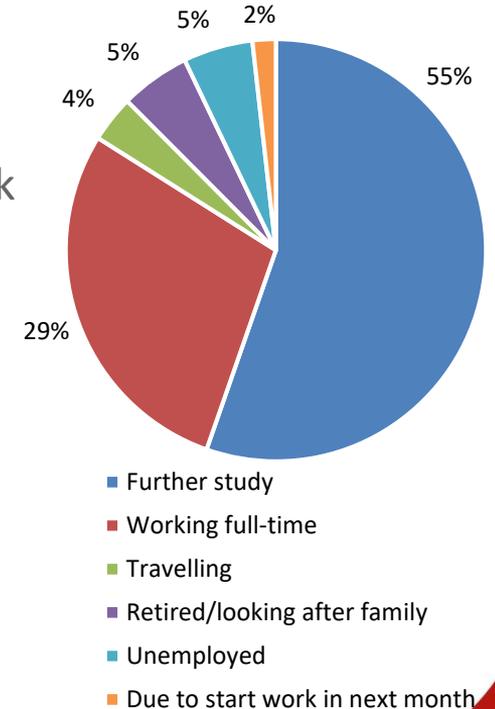# Physics at Lancaster Annual Conference and Exhibition (PLACE)

- Talks by all 3rd and 4th year students
  - 160 talks in 4 parallel sessions
  - 3rd years also write lay summary
- Posters from 4th years
  - Poster sessions on day #2
  - Poster prize by student vote
- Employer's exhibition on day #1
  - 7 exhibitors in 2019
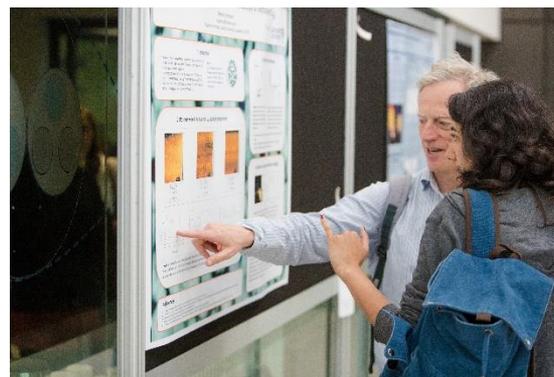
Physics (WP) Internship Programme

- 25% physics graduates (40% Lancaster) go on to PhD

- This makes physics departments important local employers!

- Departmental internships can be a great 'taster' of research work

- Also good work experience for any career path

- We use WP funding to give students, who might need summer work, a chance to have a paid internship

- Supervisors are asked to contribute ~25% (£300) to the cost to allow a few non-WP interns

- Demand (from students) massively outstrips supply from supervisors (6:1)

Lancaster physics graduates destinations

5% 2%
5%
4%
55%

29%

- Further study
- Working full-time
- Travelling
- Retired/looking after family
- Unemployed
- Due to start work in next month

Guest lectures

Idea: Industry expert gives a guest lecture on a topic relevant to the module

Implementation

- Module: PHYS388 'Energy'

- Speaker: James Cornish (MPhys Lancaster 2011), Nuclear Industry Expert

- Additional lecture, but still billed as compulsory

- Guest lecture was followed by free pizza (!) and then a careers/recruitment talk

FST Internship Programme

- One-stop (online) shop for FST students looking for a (local) internship...

    ...or employers looking for an intern

- Open to current students and recent graduates

- Employers can optionally specify subject area

- The Faculty takes care of the paperwork (payment, insurance etc.), to minimize hassle for employers: even shortlisting and interviewing (optional)

- SMEs may be eligible for a grant from Santander Universities

- ~120 students are placed every year (20% from Physics)

FST Careers Fair

- One-stop shop for employers looking for Lancaster STEM graduates

- Has largely replaced/superseded more generic university careers fair

- Appeals to students that complained that the generic careers fair didn't cater for their needs (interestingly, recruiters complained about a lack STEM students…)

- ~70 employers and ~600 students (venue at capacity)

- Held mid-November

Year in Industry?

- Lancaster Physics does not offer a formal year in industry degree programme

- However, students may intercalate for a year in industry

- Generally very small scale up-take, but…

- Lancaster (FST) has an exclusive local internship scheme with EDF and Heysham II power station

- 4/5 places are available each year, and all are open to Physics students

Summary

- There are sound reasons for engaging with local employers (and it will help with *x*EF)

- Engaging with local employers has a low threshold (local, often keen)

- There are a number of ways to engage with (local) employers

- We have found industrial group projects works particularly well with local SMEs (although they are less likely to recruit)

- Even in Lancaster, which is surrounded by sea and countryside, there is scope for finding suitable employers (many of ours are based in Cumbria)

- Other ideas not discussed are a departmental (academic) alumni contact, industrial advisory board, mentoring…

- No one size fits all (KEF), but think along the lines of embedding engagement across all areas of activity