Engineering enrolments survey

2018/19

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About the survey

- An early temperature check of the health of HE undergraduate and postgraduate engineering enrolments
  - Official information for 2018/19 entry to UK universities is not collected or published by HESA for many months.
  - The undergraduate admissions (not enrolments) slice will be available from UCAS much sooner but is only part of the picture.
- The membership service gives us all a sense of the enrolment trends in engineering across UK HEIs this autumn.
  - Our survey is the only place you can gain this insight.
- And enables individual members to understand their relative experience.

More targeted collection

✓ Improved member engagement
  - Increased response rate (61 +7%)…
  - From more discrete universities (49 +2%)

✓ Better coverage
  - More discrete disciplines (171 +22%)

✓ More information
  - Many more students (c33K x2)

✓ Improved data quality

✓ Better understanding

✓ Strong basis for future surveys

✓ Covered all countries and regions of the UK and all mission groups
  - Approx. 1 in 2 were Russell Group
  - Balanced non / Russell Group comparisons.

✓ Reliable sex and mode of study data.

− Sample year on year comparisons not a good idea

− It's a survey, not a comprehensive data collection
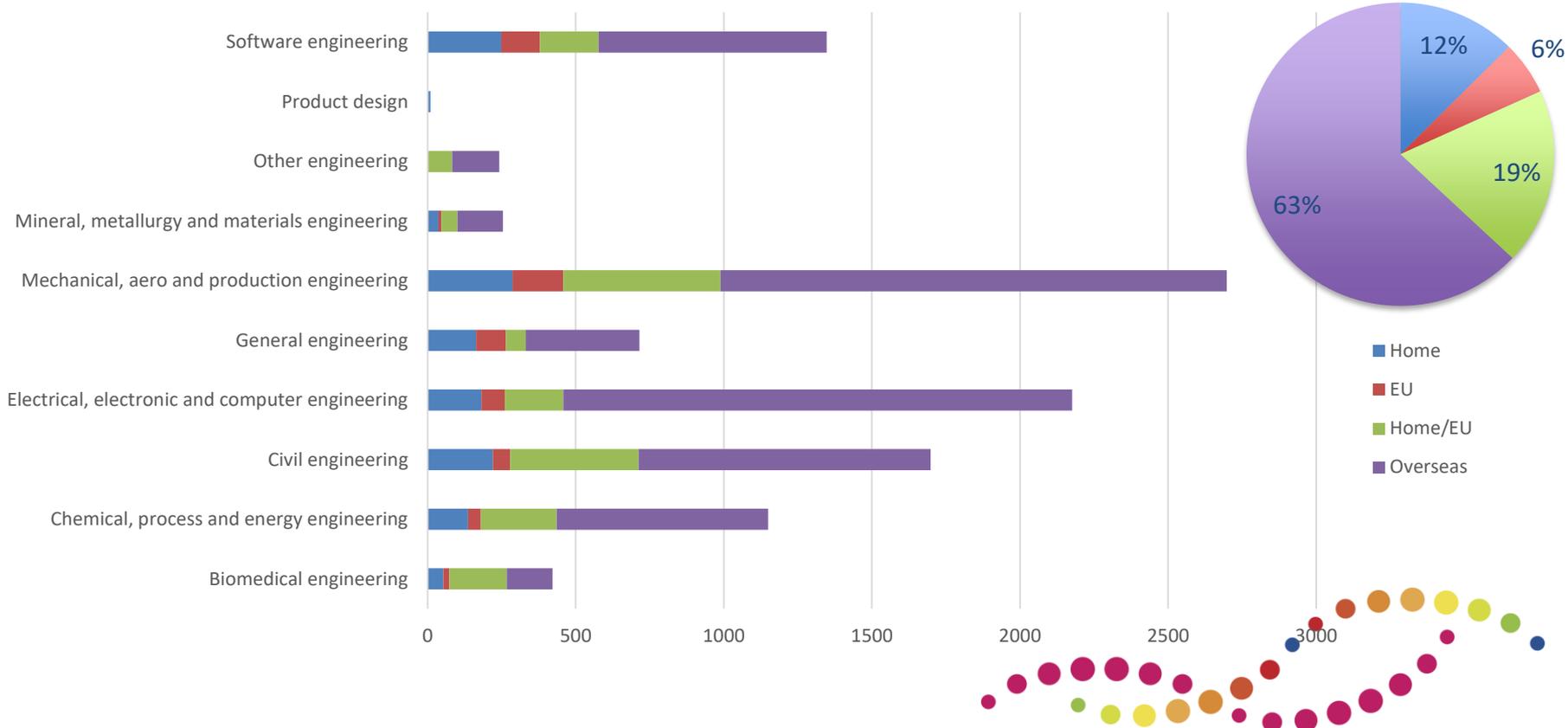
Our survey said…

- The shape of the enrolment pattern, including home enrolments, is consistent to what we've seen previously
    - The data is sound!
    - Enrolments overall appear stable
- There are some stand-outs
    - Mechanical engineering remains the sector superstar (official data shows undergraduate numbers doubled in a decade); and I'm told the engineering applicant field is strong
    - Civil engineering continues to strengthen
    - Software engineering has developed more prominence

Undergraduate enrolments 2018/19
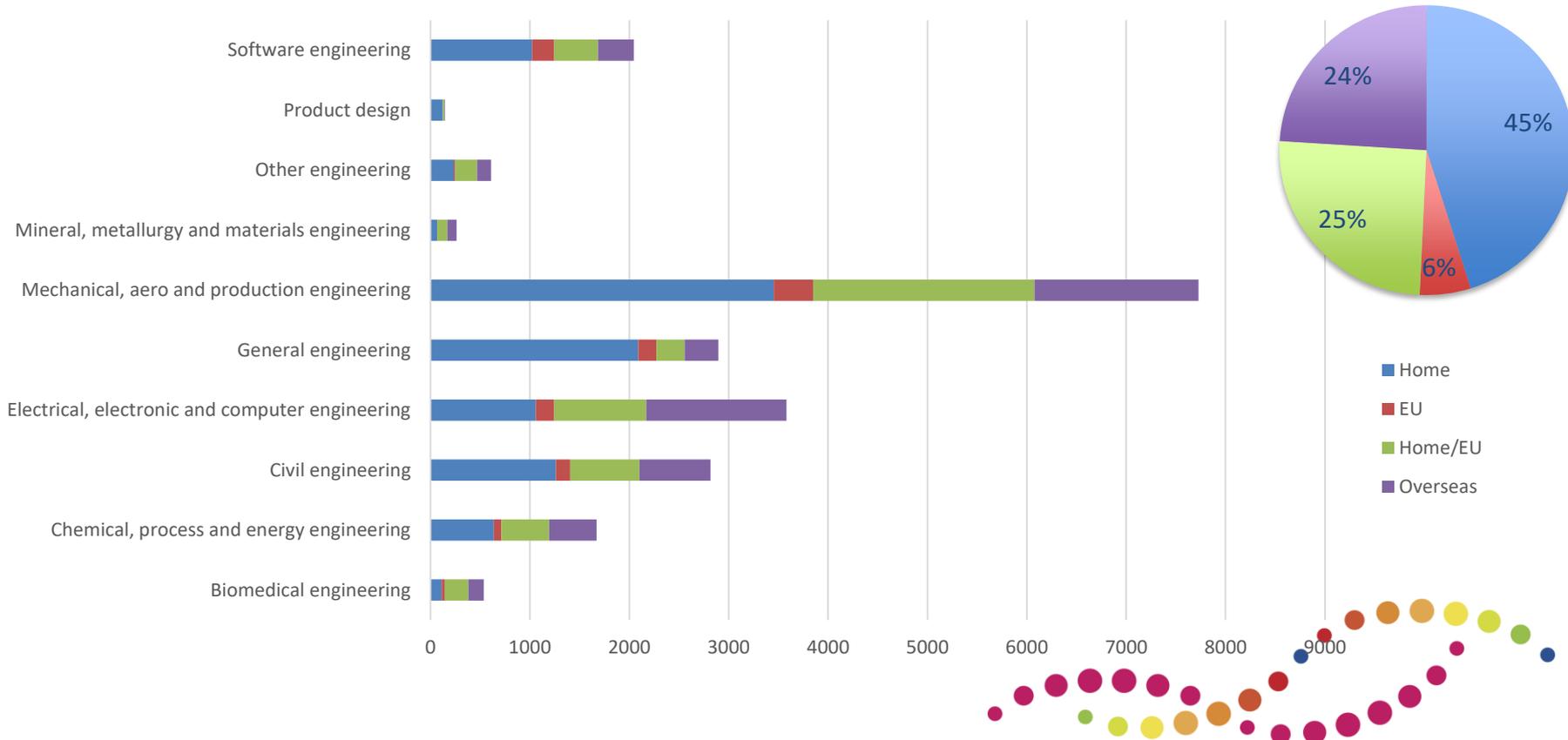
Postgraduate enrolments 2018/19

Focus on: Software engineering

- Does our survey represent sector burgeoning?

- Interim UCAS UG data doesn't suggest an engineering surge, so if software engineering is really taking off, which areas are declining?

- At undergraduate level, software engineering is proportionally the singularly most EU dependent discipline in our sample (50% home).

- Software engineering had a poor female: male ratio in our sample; only Mechanical, aero and production engineering fared worse.

- Relatively strong part-time player. Some degree apprenticeships

Focus on: home grown talent

- At undergraduate level, Non Russell Group universities dominate the home market.

  - The EU share of the undergraduate market has contracted in our survey for non Russell Group universities, while the Home share has expanded.

- Postgraduate engineering courses see a much higher proportion of overseas enrolments, especially within the Russell Group.

- We are seeing 3 undergraduate home students to each postgraduate home student this year.

  - Last year it was 2:1.

- There are huge regional variations.

(Non) Russell Group enrolments 2018/19
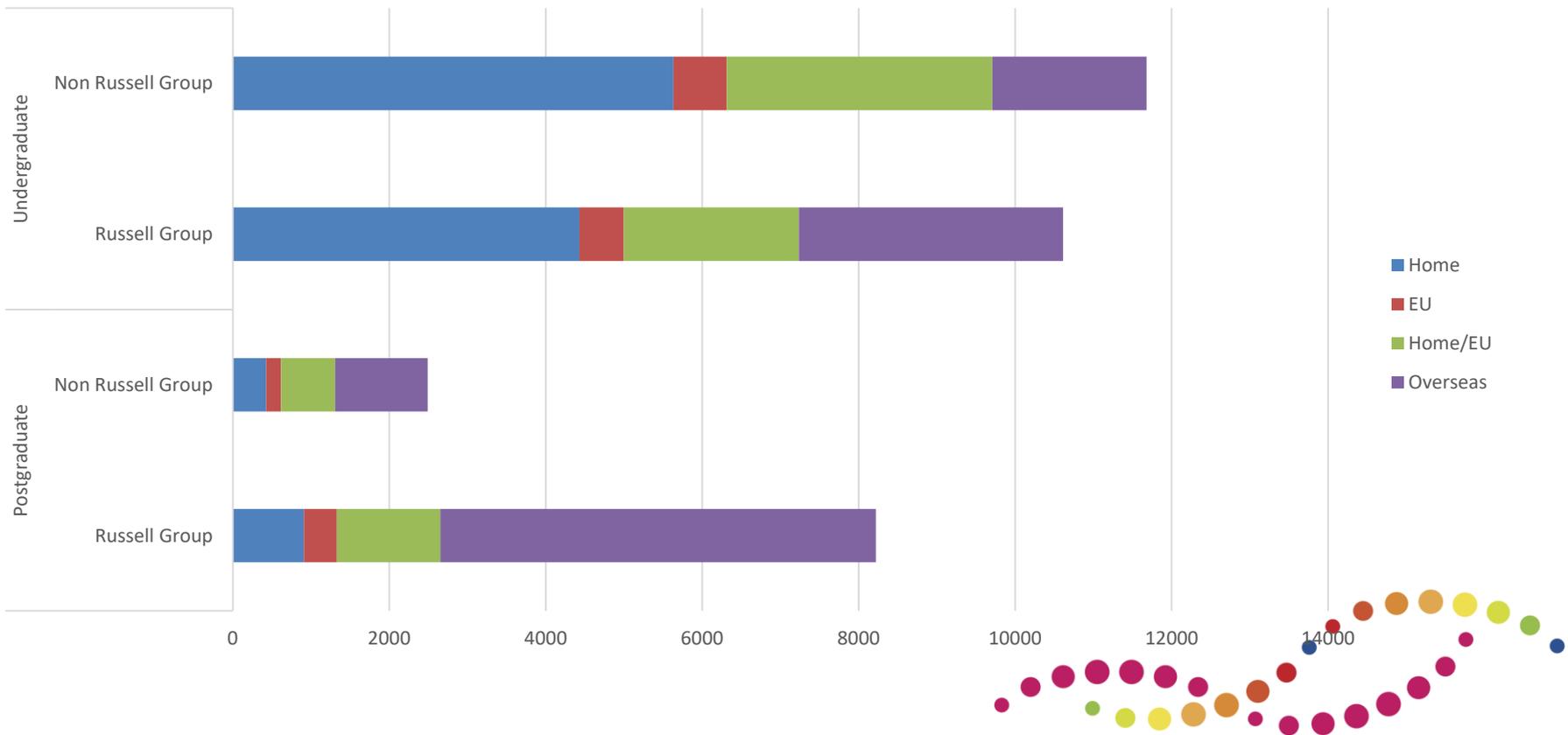
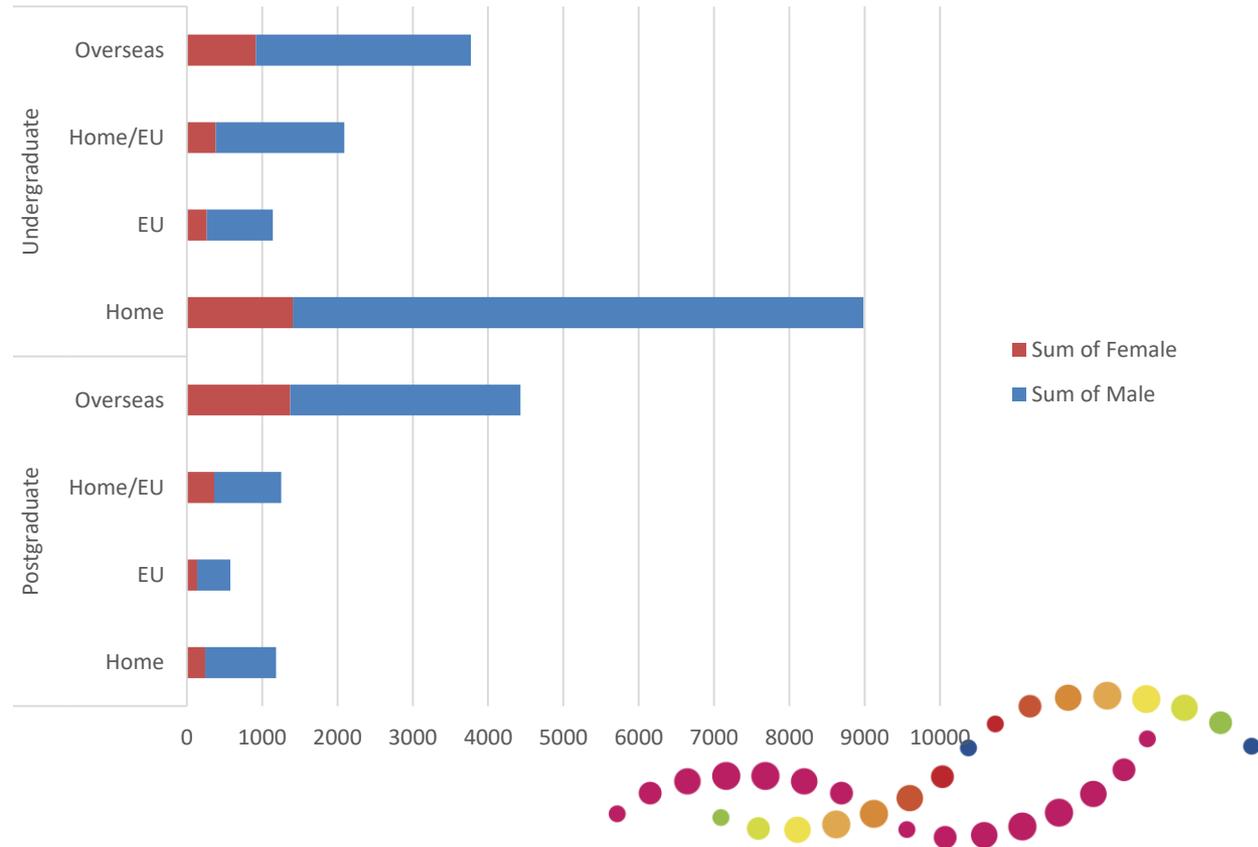# Regional enrolments 2018/19
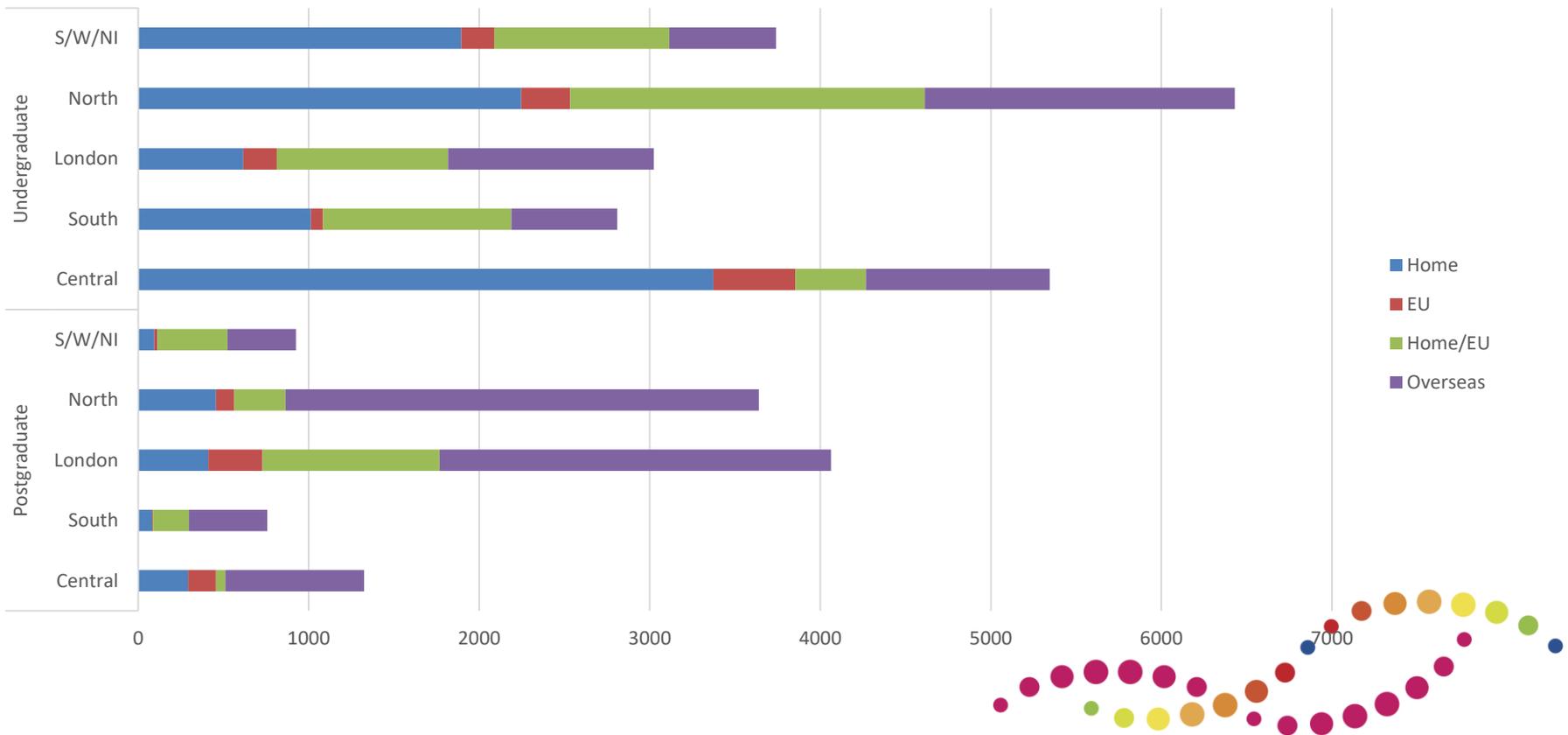
Focus on: women in engineering

- Overall, the EU student sample doesn't support the cause
  - This is surprising given Europe's track record in this space.
- Recruiting from further afield (other overseas) does
  - Particularly if you're in the Russell Group…
  - And enrolling postgraduates!
- (And the data we collected on this just keeps getting better)
  - Hugely improved coverage at both PG and UG level
  - Almost complete for Home undergraduate enrolments
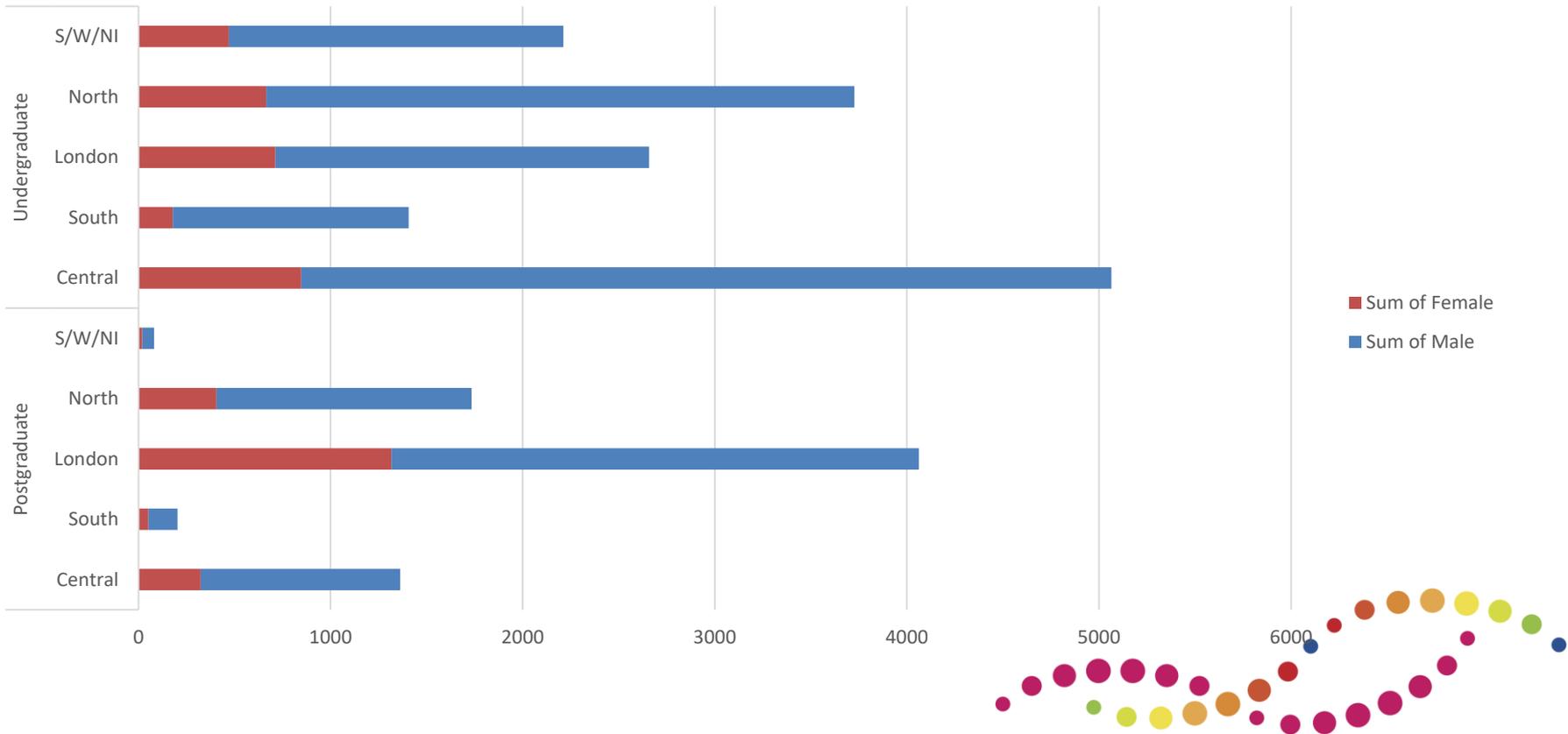- Varies by region (see the South) and discipline
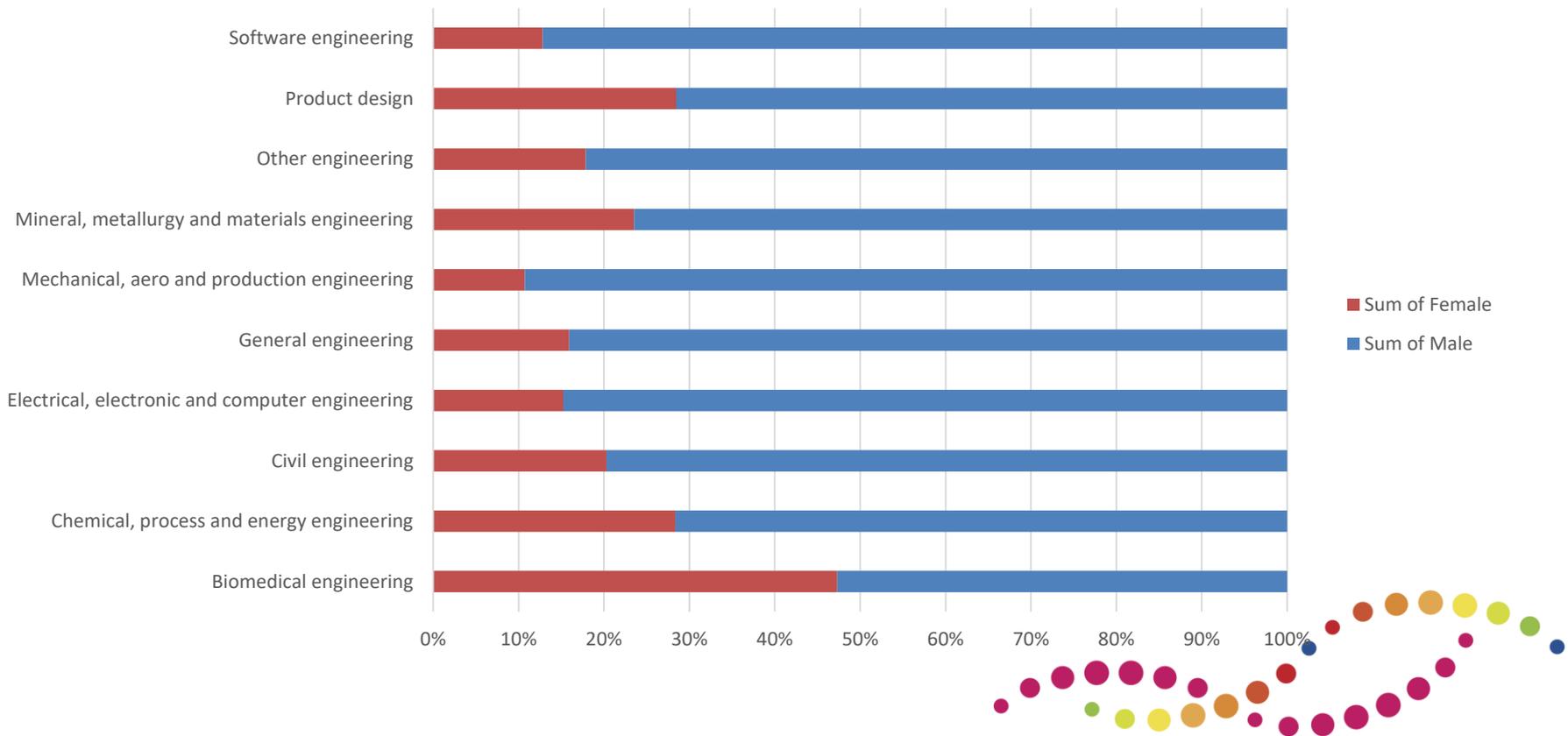
Female enrolments 2018/19

- Next, a canter through the headline sex data for home enrolments…
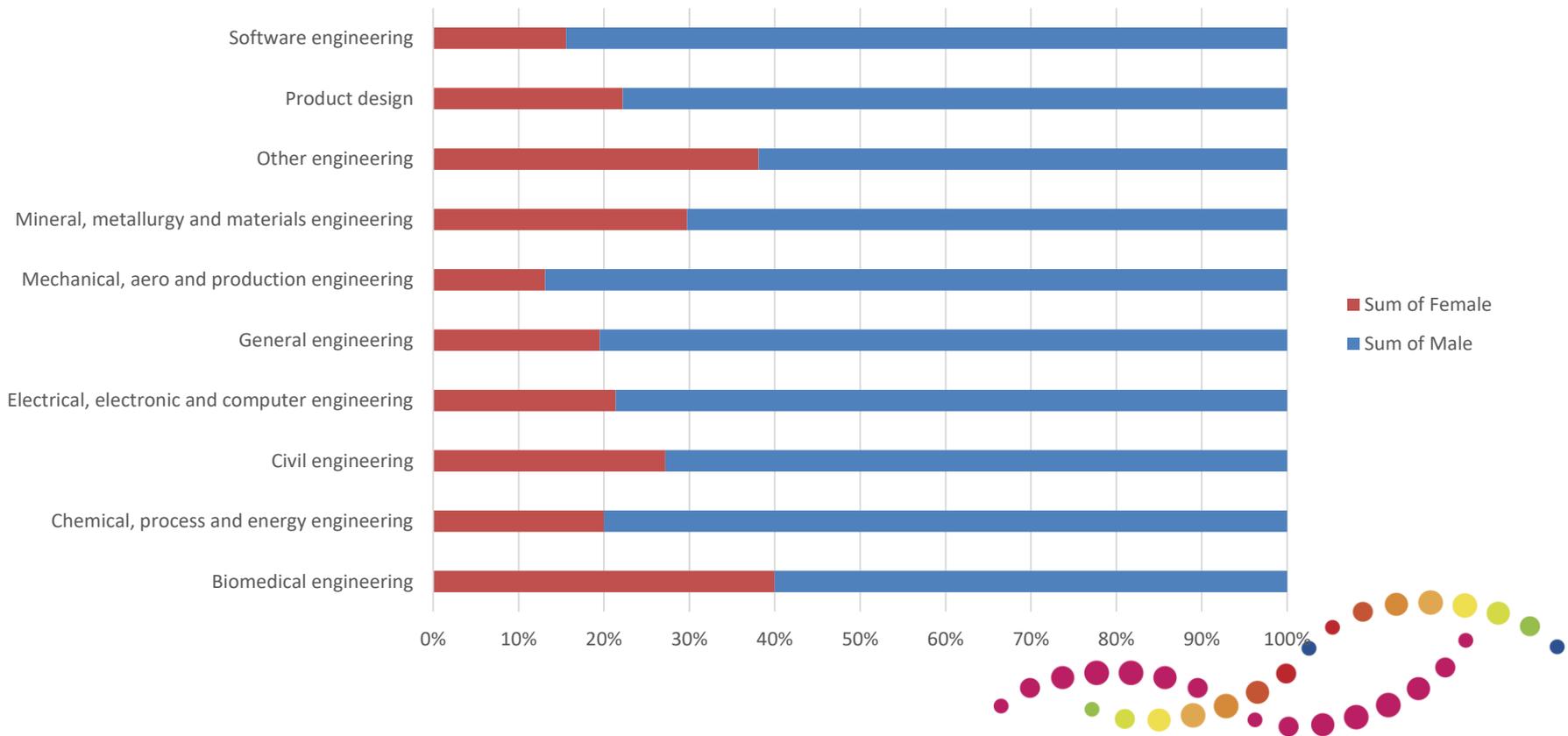
- And part-time data for the same cohort
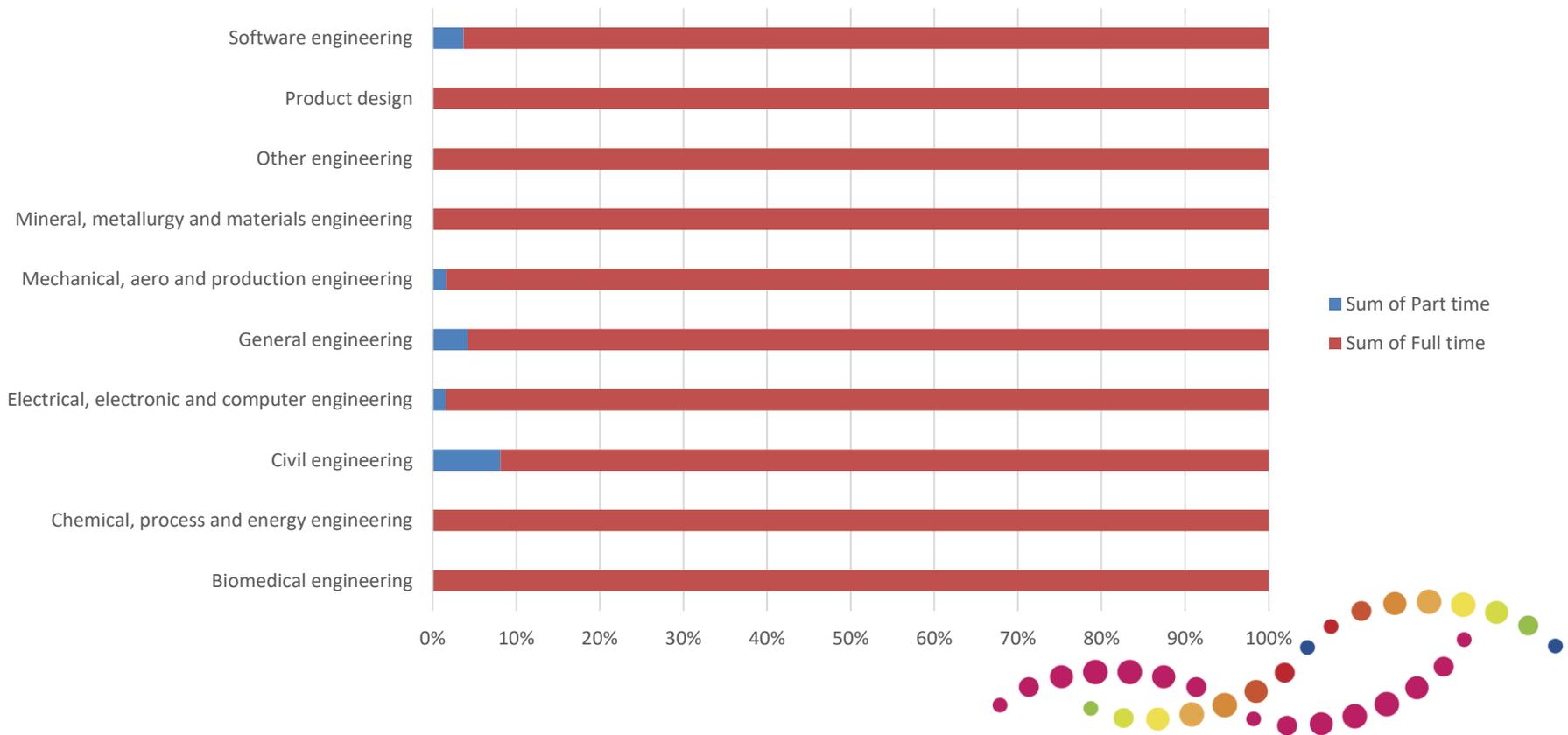
Female enrolments by region 2018/19

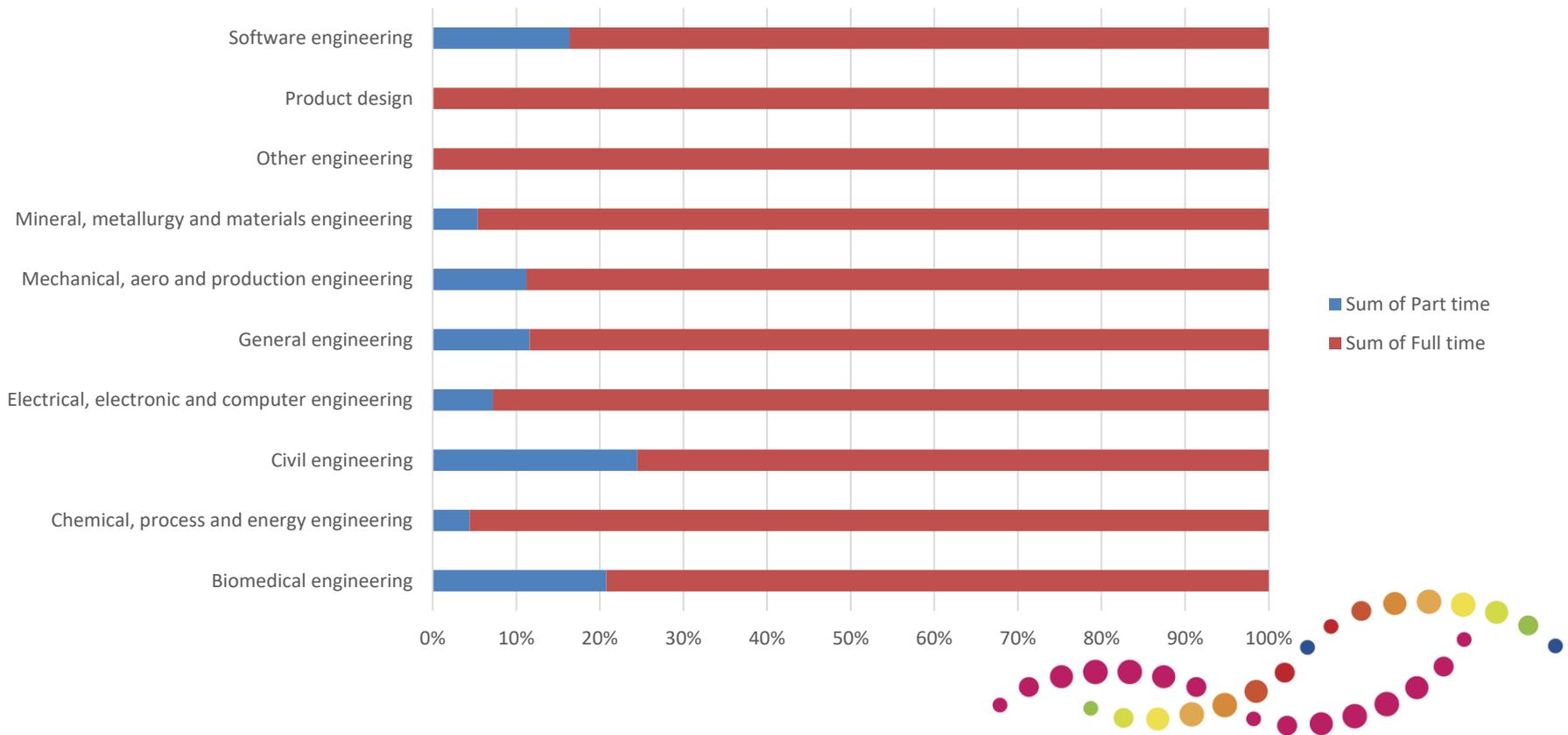# Female enrolments by discipline (UG home)

Female enrolments by discipline (PG home)

Part time enrolments by discipline (UG home)

# Part time enrolments by discipline (PG home)

Focus on: degree apprenticeships

- Total 572 students returned
  - 3.5 x more than last year
  - By 1/4 respondents
  - Approx. half were in addition to the enrolment figures submitted
- Dominated by Mechanical, aero and production engineering and Civil engineering
  - Not good and a bit better for women, respectively?
  - And in all disciplines excepting Biomedical engineering, Chemical, process and energy engineering, Product design
- 3% of these were at postgraduate level, in
  - Mechanical, aero and production engineering, Software engineering, Other engineering

Degree apprenticeships

- Civil engineering
- Mechanical, aero and production engineering
- Software engineering
- General engineering
- Electrical, electronic and computer engineering
- Mineral, metallurgy and materials engineering
- Other engineering
- Biomedical engineering
- Chemical, process and energy engineering
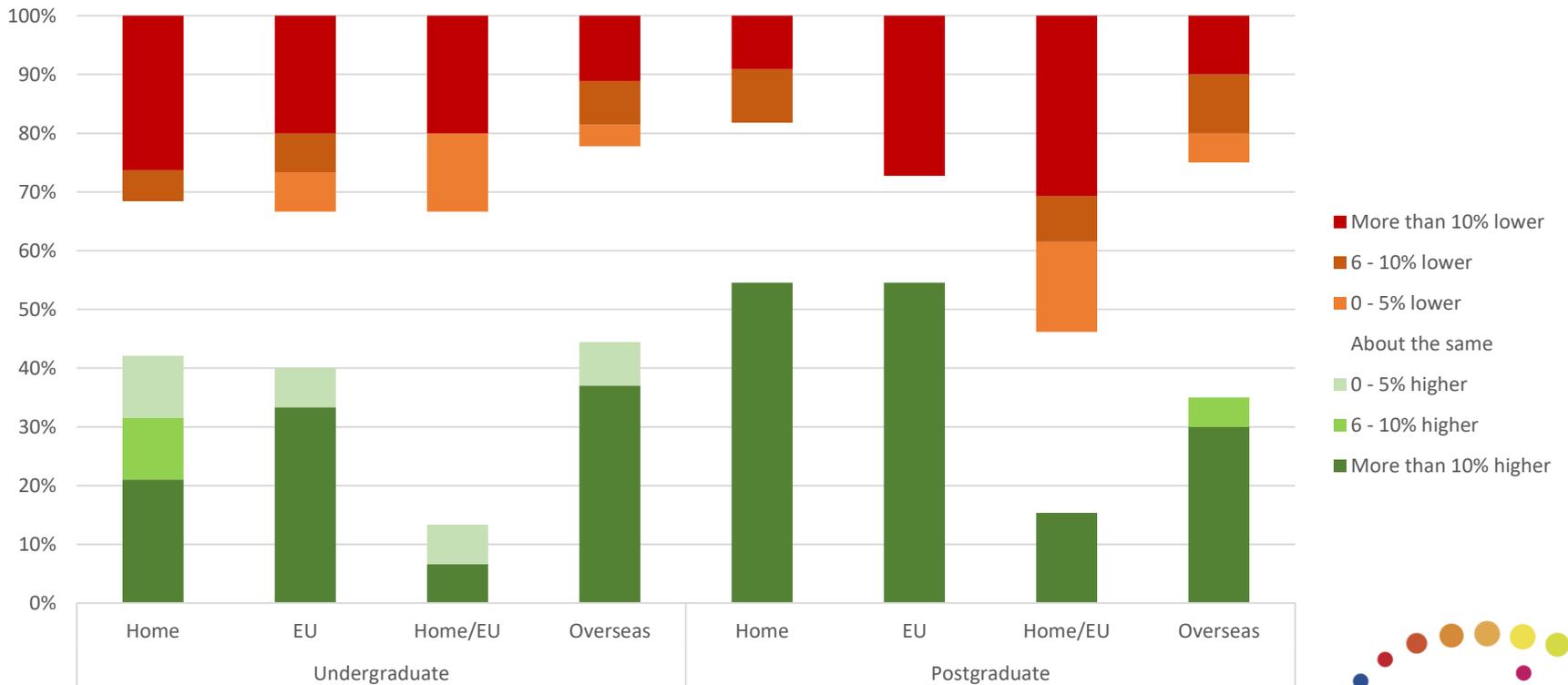- Product design
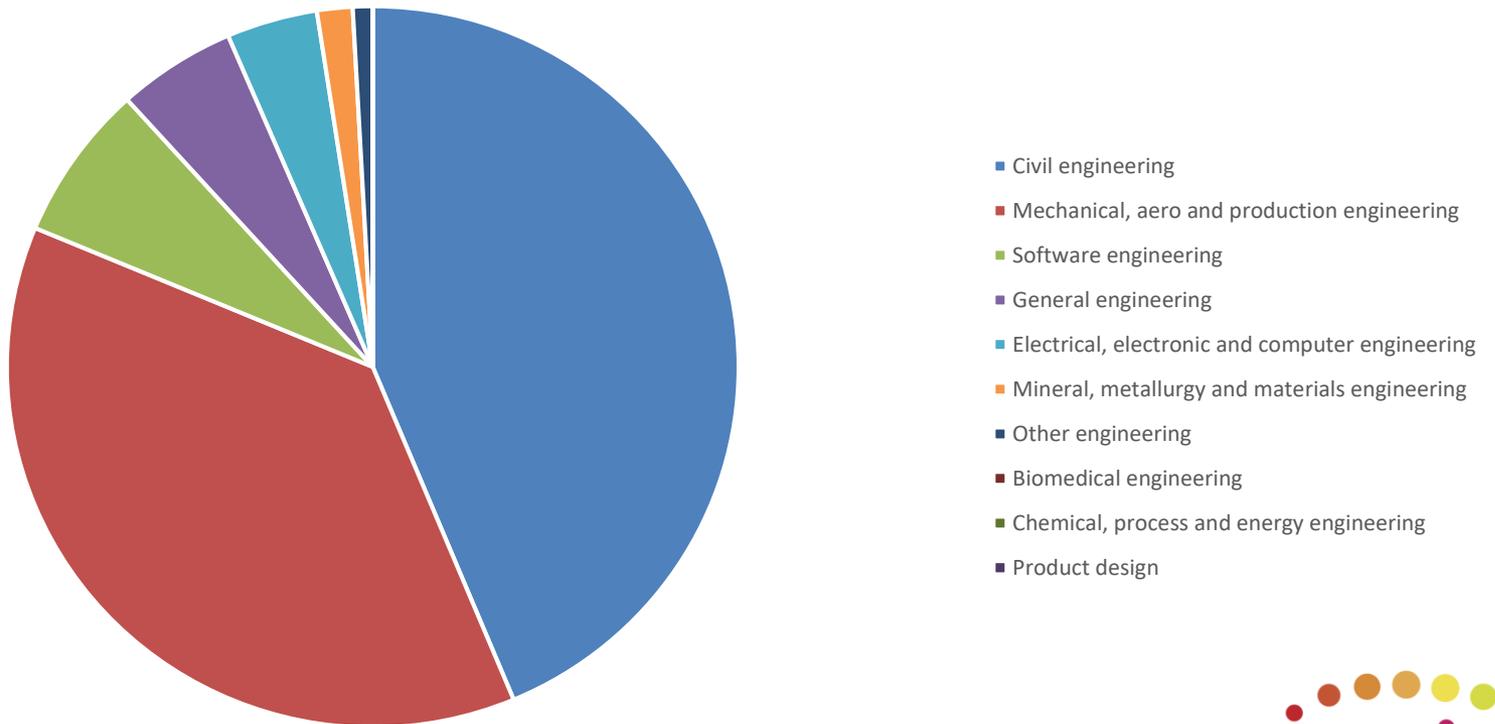
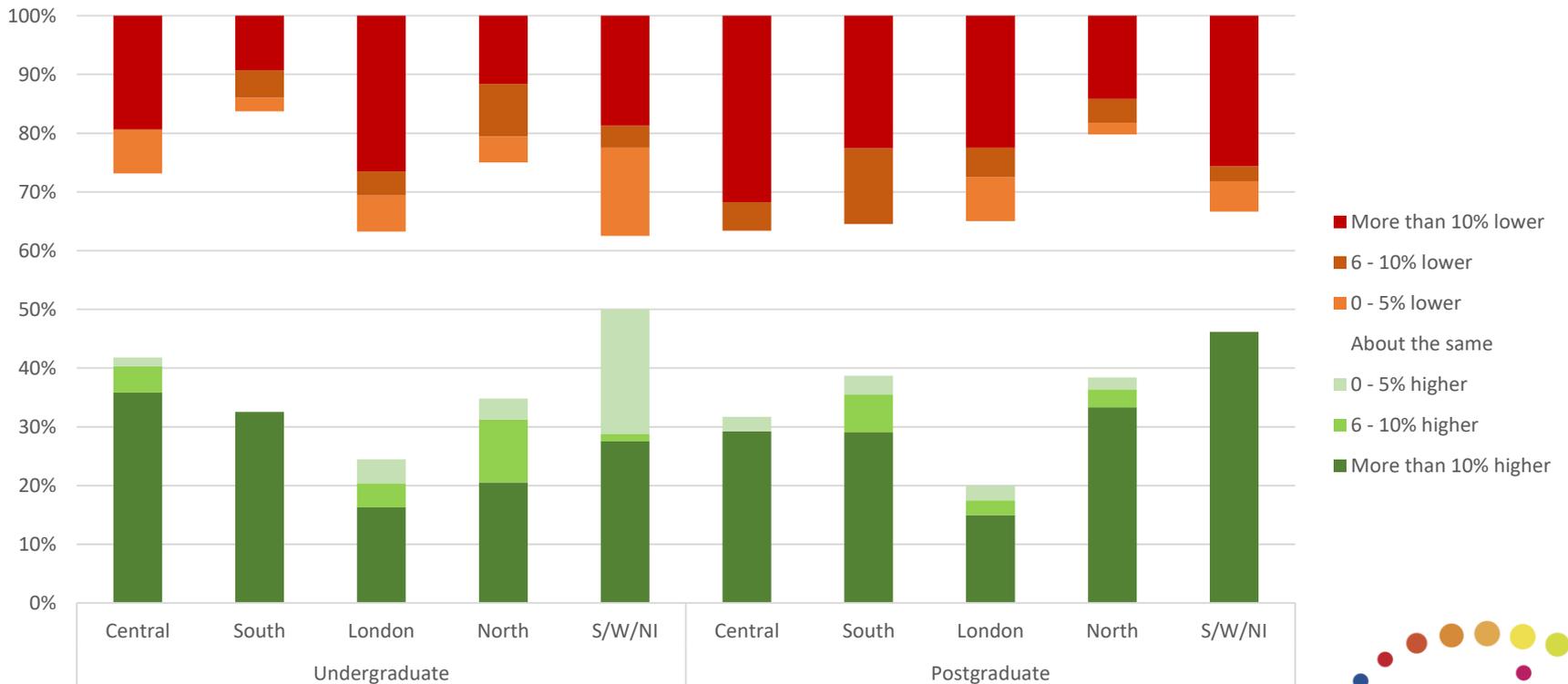# And finally, higher or lower headlines

- Summary
- Regional
- Russell Group
- Discipline
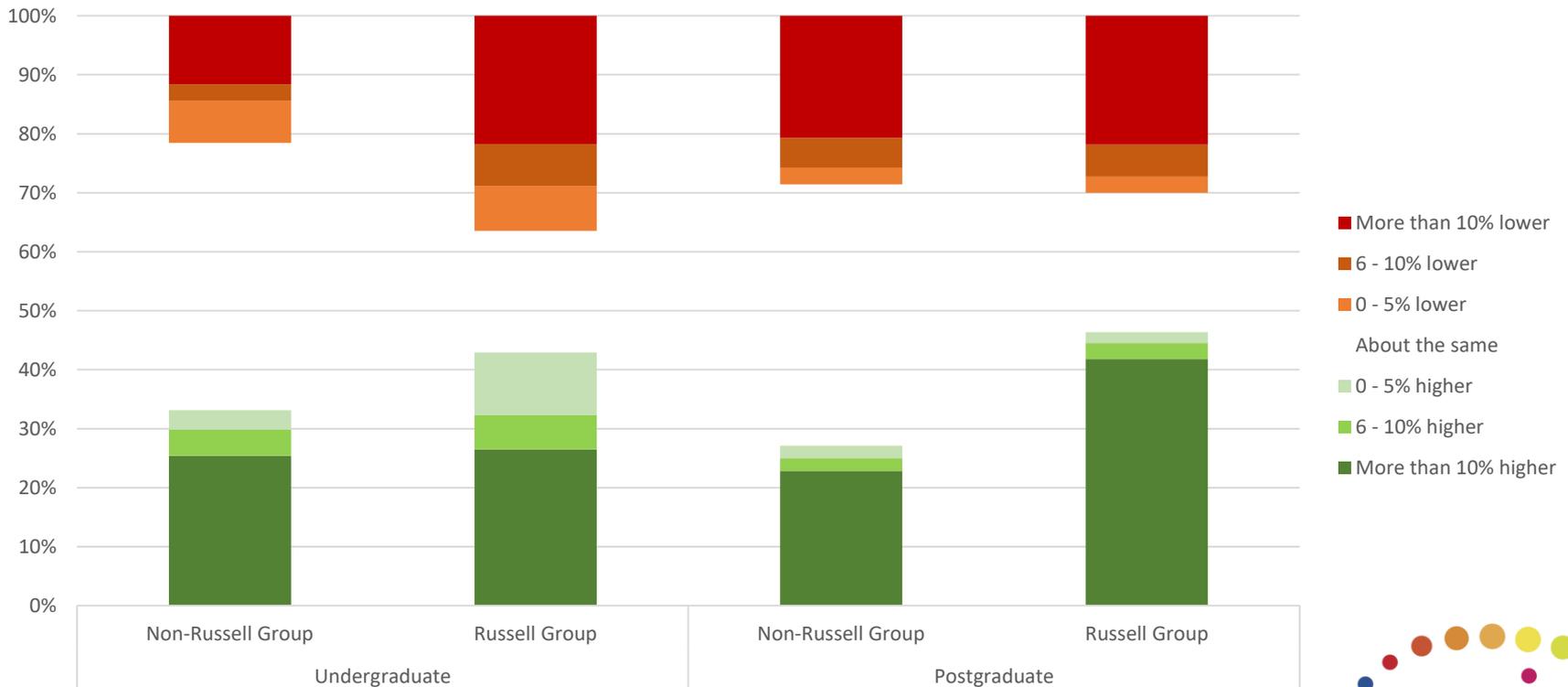 - Undergraduate
  - Postgraduate

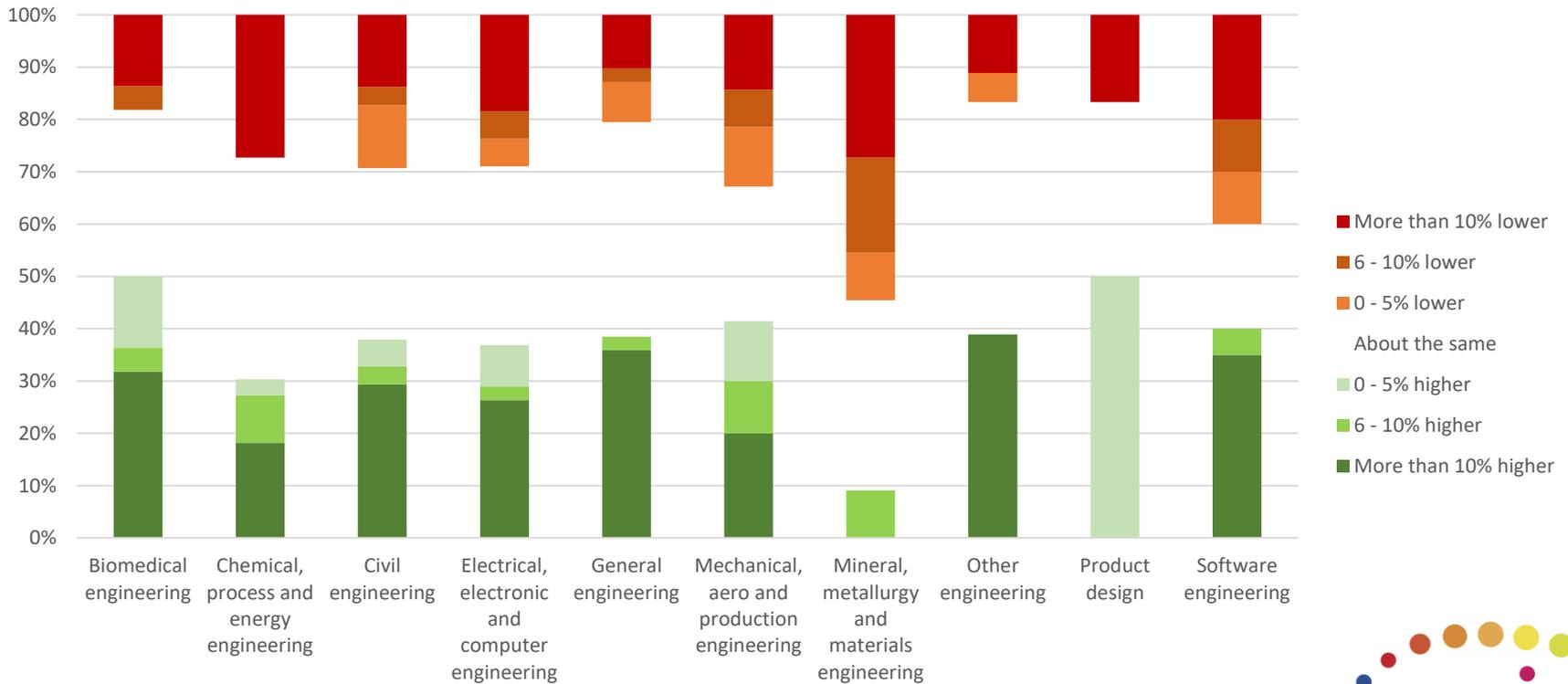- Introducing the headline data…

Higher or lower enrolments summary
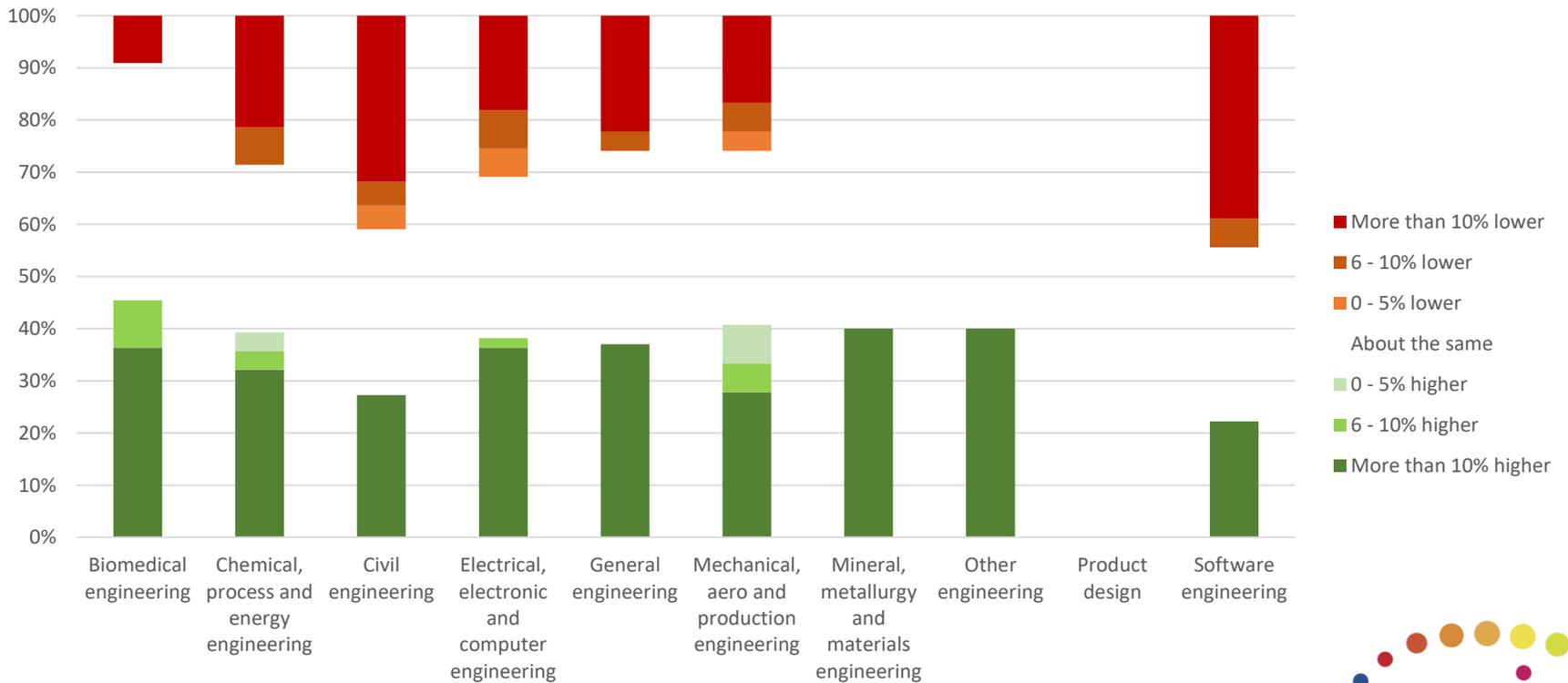
Higher or lower regional enrolments

Higher or lower Russell Group enrolments

Higher or lower enrolments by discipline (UG)

Higher or lower enrolments by discipline (PG)

What more do we know?

- Recruitment / selection is made in the context of institutional strategies and targets (which, of course, vary!)

- Attracting core Electronic and Electrical Engineering students continues to be challenging

- Some (non-EU) overseas markets are struggling

- Recruiting WP students continues to be a problem in engineering

- Attracting women remains a priority (but HE outreach alone not enough)

Let's share (please padlet)

- What are your insights?
- Why do you engage (or not) with the survey?
- What benefits do you gain from this analysis? How do you use it?
- What would make it easier for you to respond?
  - Earlier or later collection
  - Format
  - More detailed guidance
  - Better communication of the benefits
- Should we be collecting other information?
- Is there more we can do to help you in this space?

Or questions (over to you)

- I will share my slides with you
- I will publish my initial finding and a summary of the data on the EPC website
- I will continue my work to identify a lead point of contact for this exercise in each university
- And some reassurances:
  - We already pay due diligence to GDPR
  - Some variables are grouped to reduce small numbers in presentation
  - Cells with fewer than 5 students not presented (else 0)
  - %s used when necessary to retain institutional confidentiality