

Launch

EPC ENROLMENT SURVEY RESULTS 2019

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About the survey

- An EPC membership service
 - Providing an early temperature check of the health of HE undergraduate and postgraduate engineering enrolments
 - Giving us all a sense of the enrolment trends in engineering across UK HEIs this autumn
 - Enabling individual members to understand their relative experience
- Our survey is the only place you can gain this insight
 - Official information for 2019/20 entry to UK universities is not collected or published by HESA for many, many months.
 - The undergraduate admissions (not enrolments) slice will be available from UCAS much sooner but is only part of the picture.



About this year's collection

- ✓ Better EPC communication
 - ✓ Fewer multiple submissions from a single university
 - ✓ Better coverage from more discrete disciplines (193 +13%)
- ✓ Solid information
 - ✓ Above average number of students (c30K)
 - ✓ Good data quality
 - ✓ Some pockets of missing data (sex, mode of study)
- ✓ Good understanding
- ✓ Covered all countries and regions of the UK and all mission groups
 - ✓ Just under 1 in 2 were Russell Group
 - ✓ Slightly non-Russell Group heavy

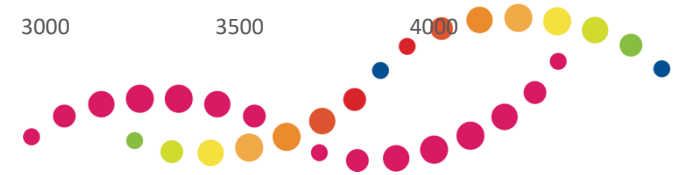
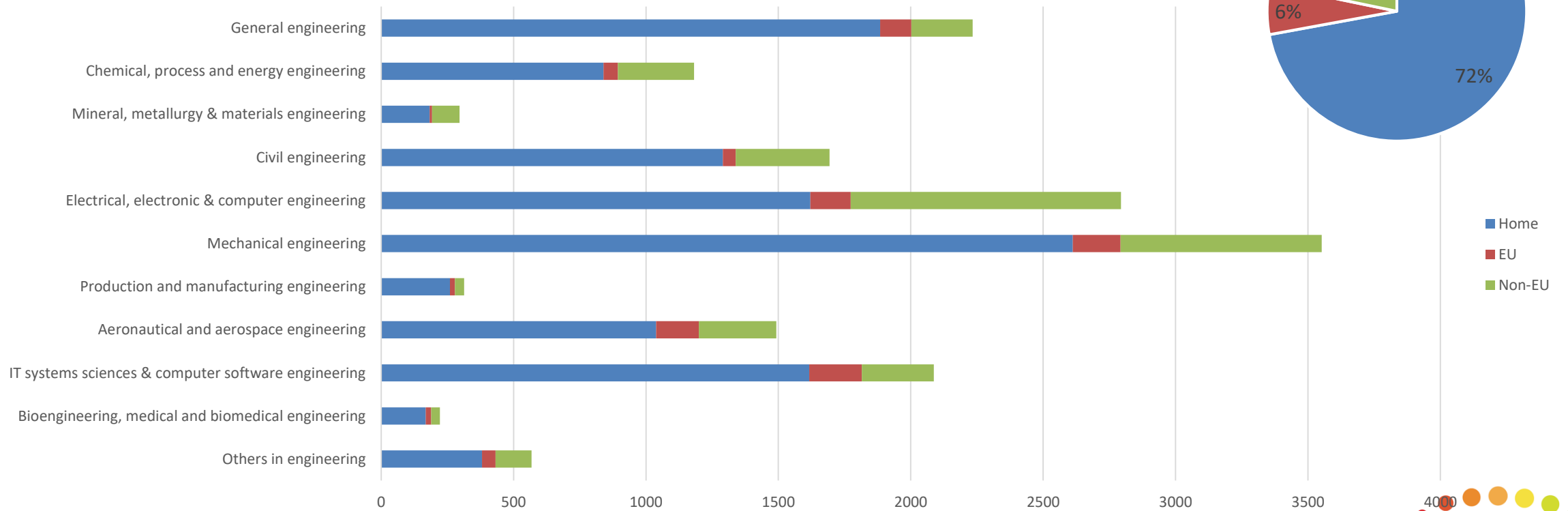


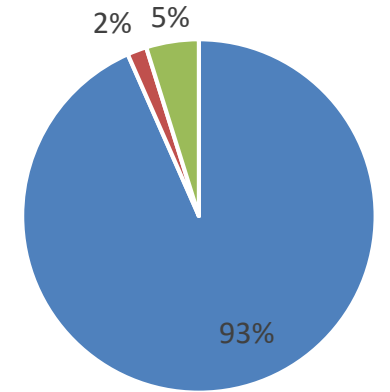
About this year's collection

- It's a survey, not a data collection
- Sample year on year comparisons not ideal
 - Some subject changes with HECOS in mind
 - Separated first degree and other UG
 - Some EU/Home limitations
- Sector pressures have impacted this year's survey
 - (Temporary) staff shortages
 - Restructuring
 - Other priority deadlines
- Lower than usual member engagement
 - Only half of our members participated this year
 - From fewer discrete universities (41 -16%)

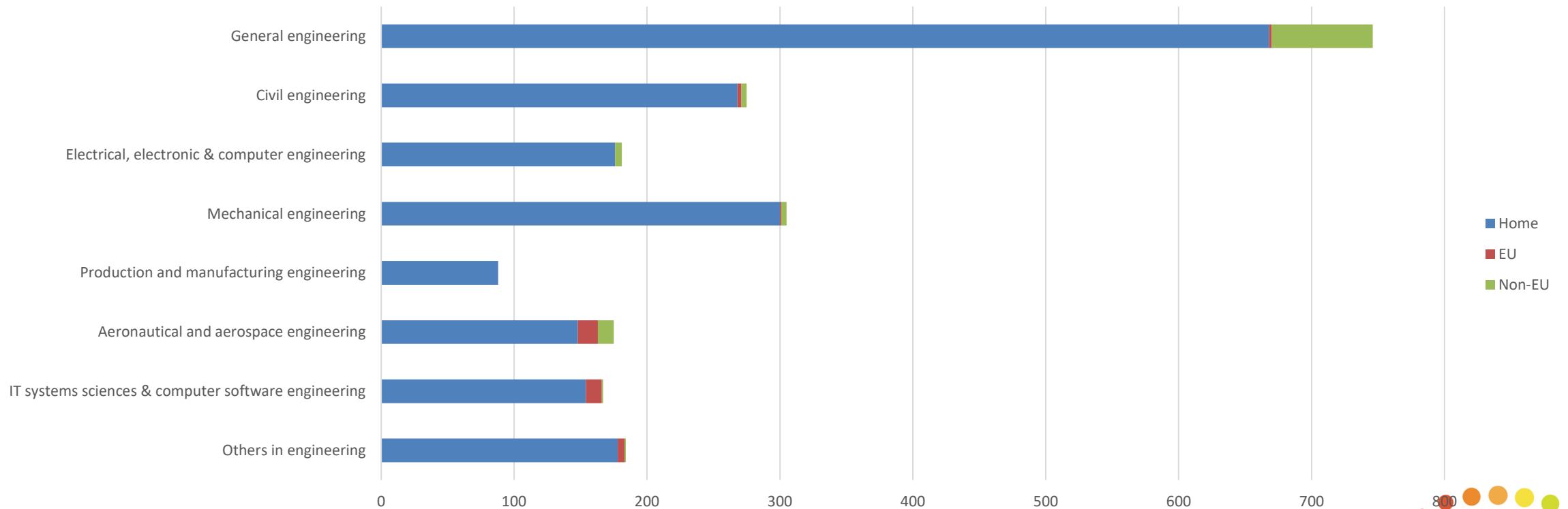


First degree enrolments 2019/20

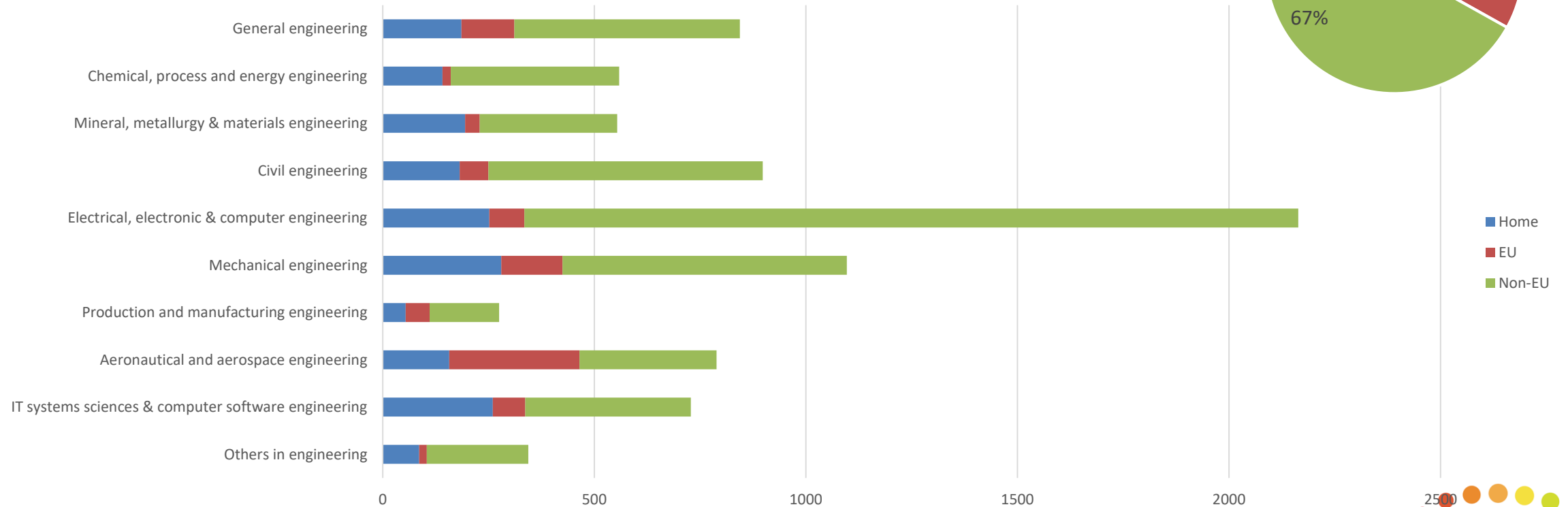




Other undergrad enrolments 2019/20



Postgrad enrolments 2019/20



Headline distributions

- Less than 1/4 of first degree enrolments were international (the survey suggests this is a decline)
- Other undergraduate enrolments were almost exclusively home students
- 2/3 of postgraduate enrolments were international
- Mechanical engineering remains the sector leader for UG enrolments
- Other UG dominated by General engineering
- Postgrad dominated by Electrical, electronic and computer engineering

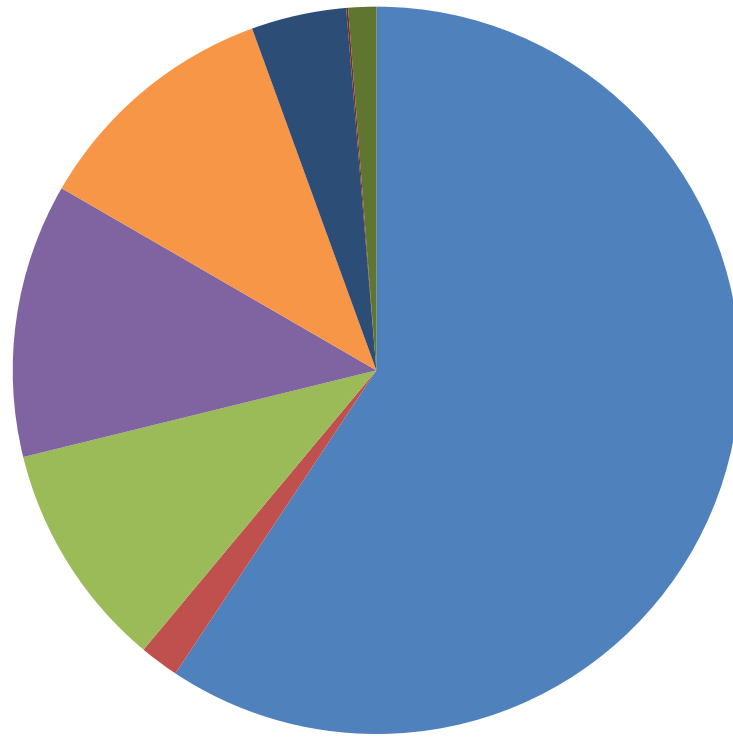


Focus on: Electrical engineering

- Electrical, electronic and computer engineering dominates our postgraduate sample for the first time this year and is closing in on Mechanical, aero and production engineering at UG level.
- Enrolling at $\frac{3}{4}$ of responding universities.
- Electrical, electronic and computer engineering is proportionally the singularly most internationally dependent discipline in our sample (accounting for more than 4 in 5 PG enrolments and 1 in 3 first degree).
- Does our survey represent sector international growth in this discipline? Last year I was advised that attracting Electronic and electrical engineering students continues to be challenging. Are these all computer engineering courses?
- Electrical, electronic and computer engineering had a lower than average female: male ratio in our UG sample; and a higher than average female: male ratio in our PG sample.
- 95% full time – higher than average.
- A handful of DAs and Foundation.



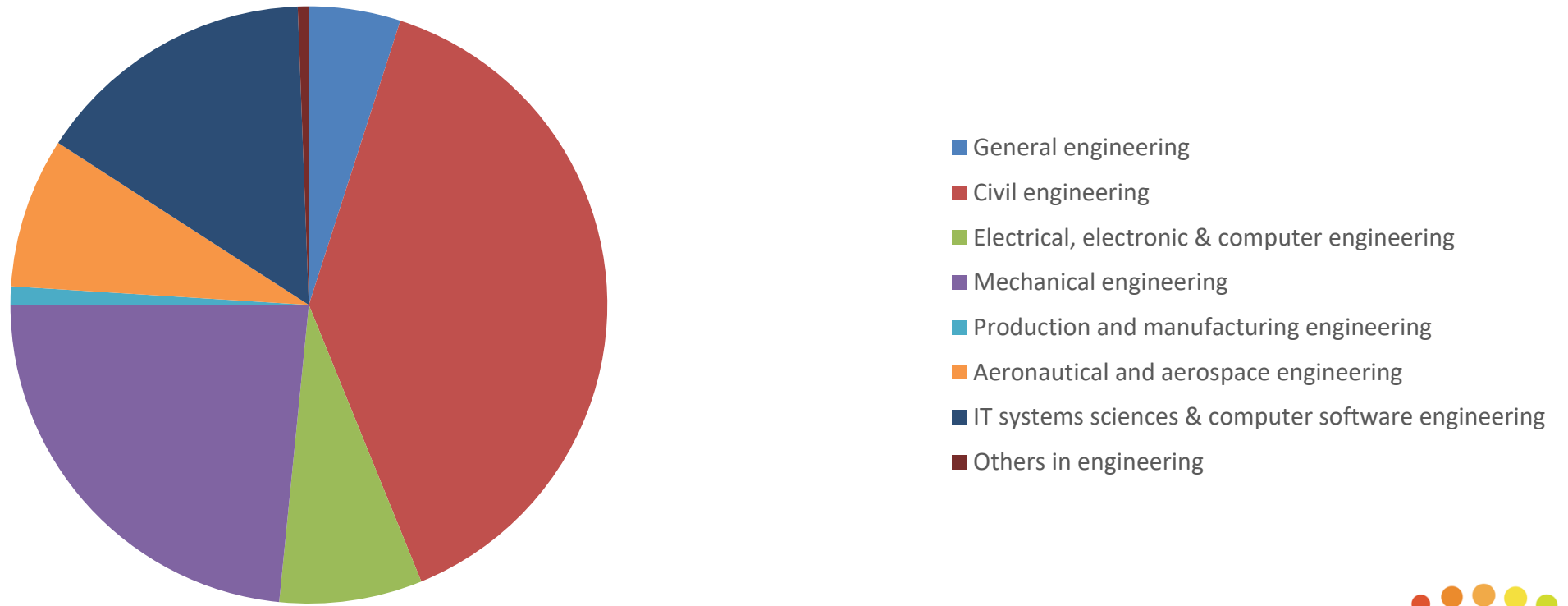
Foundation by discipline



- General engineering
- Civil engineering
- Electrical, electronic & computer engineering
- Mechanical engineering
- Production and manufacturing engineering
- Aeronautical and aerospace engineering
- IT systems sciences & computer software engineering
- Bioengineering, medical and biomedical engineering
- Mineral, metallurgy & materials engineering



Degree apprenticeships by discipline

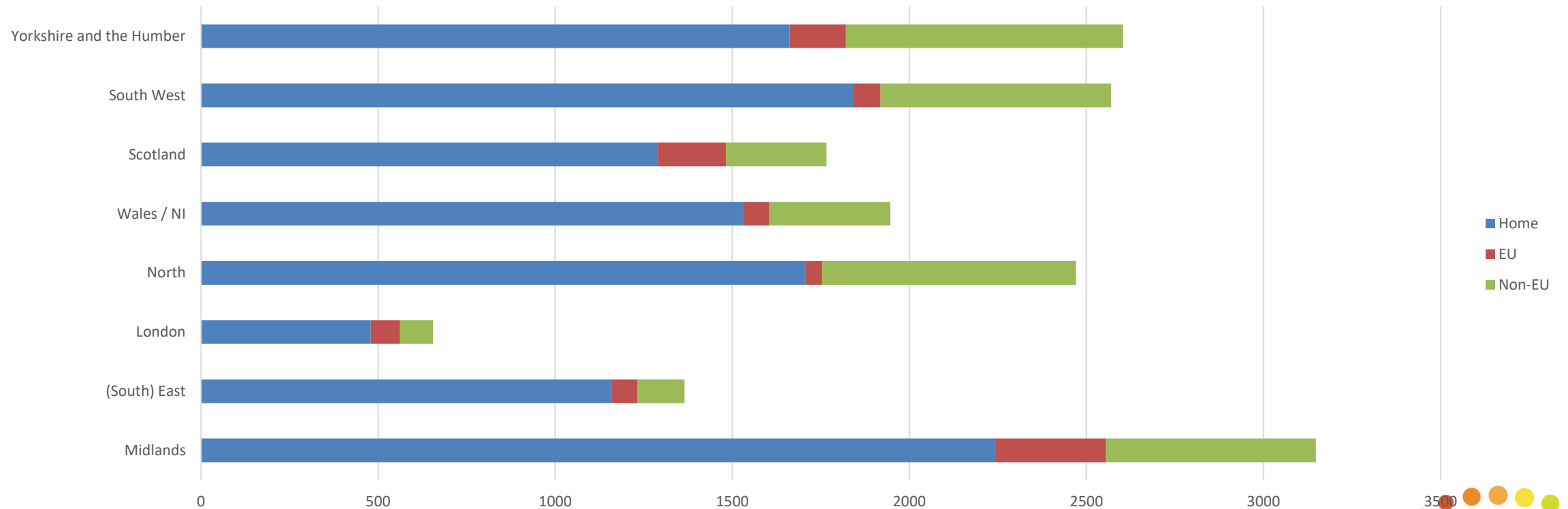


Focus on: other undergraduate enrolments

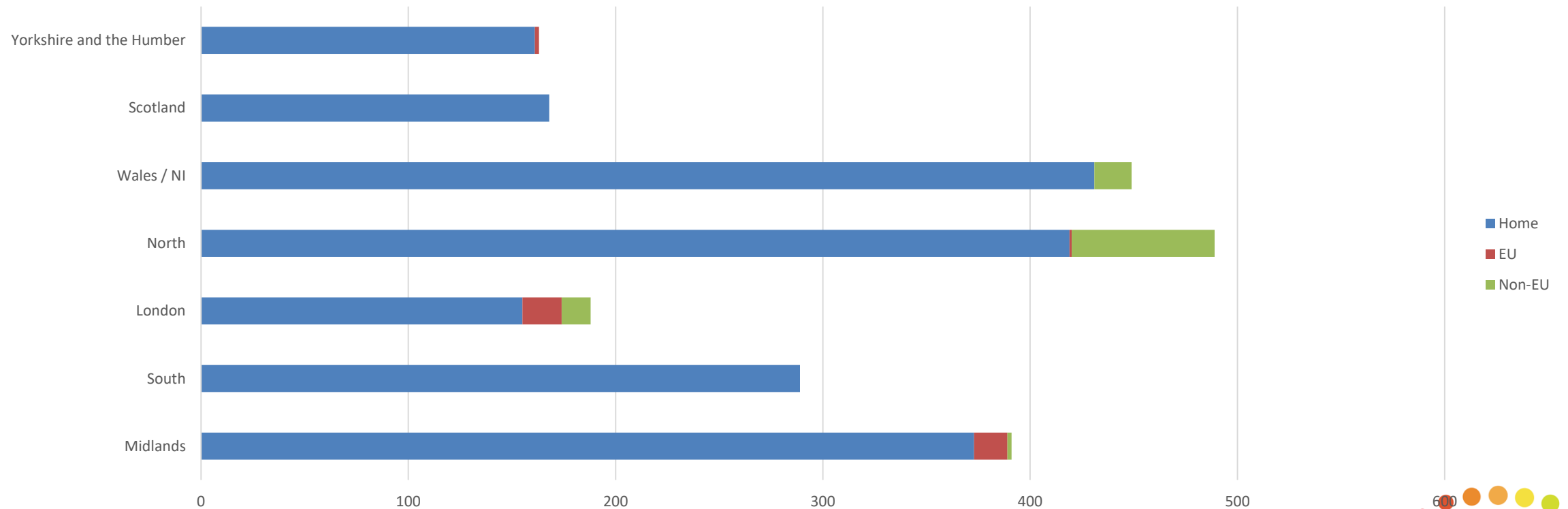
- New this year, enrolments returned against Degree Apprenticeships, Foundation (and Both)
- Nearly 2,000 students returned
 - 27% degree apprenticeships (exclusively UK domiciled)
 - 64% foundation (90% UK domiciled)
 - 9% both (>90% UK domiciled)
- Majority of Other UG course were in General Engineering: foundation
- Civil engineering dominated Degree Apprenticeships
- 15.5% Foundation and 19.4% DA were female
- More than 4 in 5 Foundation courses were in pre-92 universities
- More than 4 in 5 Degree Apprenticeships were in post-92s
- 83% of DAs and 63% of Foundation in English universities
- Again, only a handful of Degree Apprenticeships at PG level



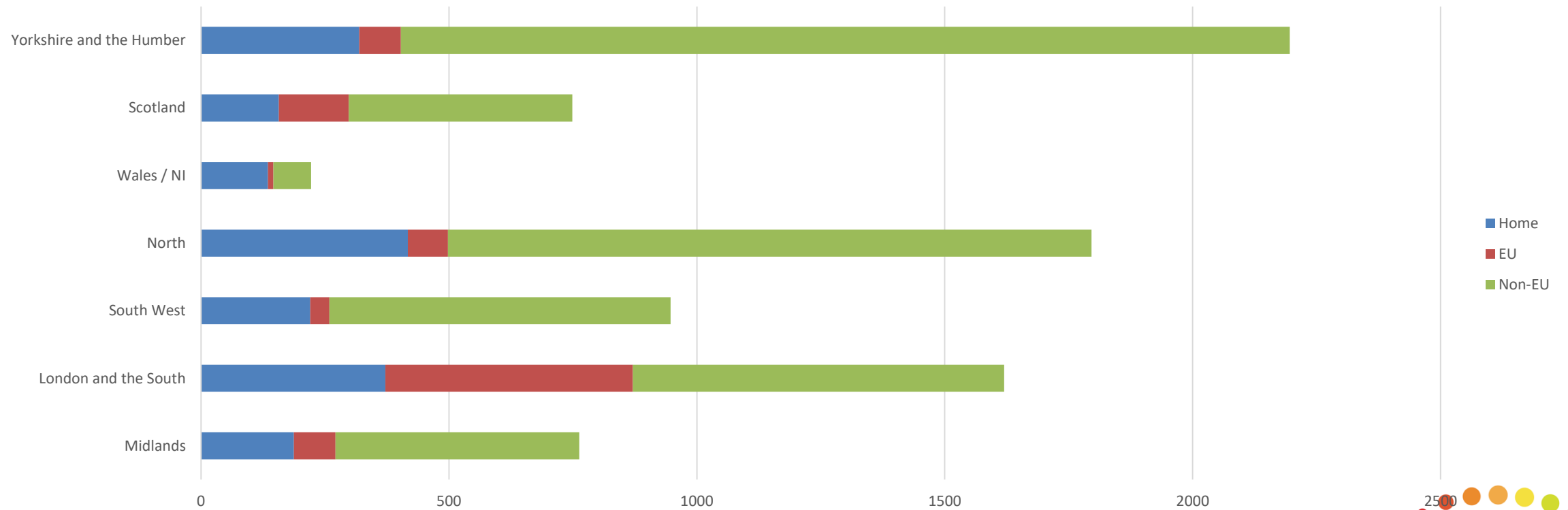
Regional enrolments, first degree, 2019/20



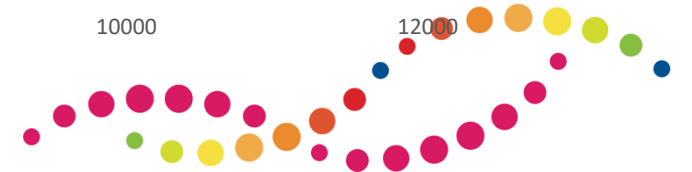
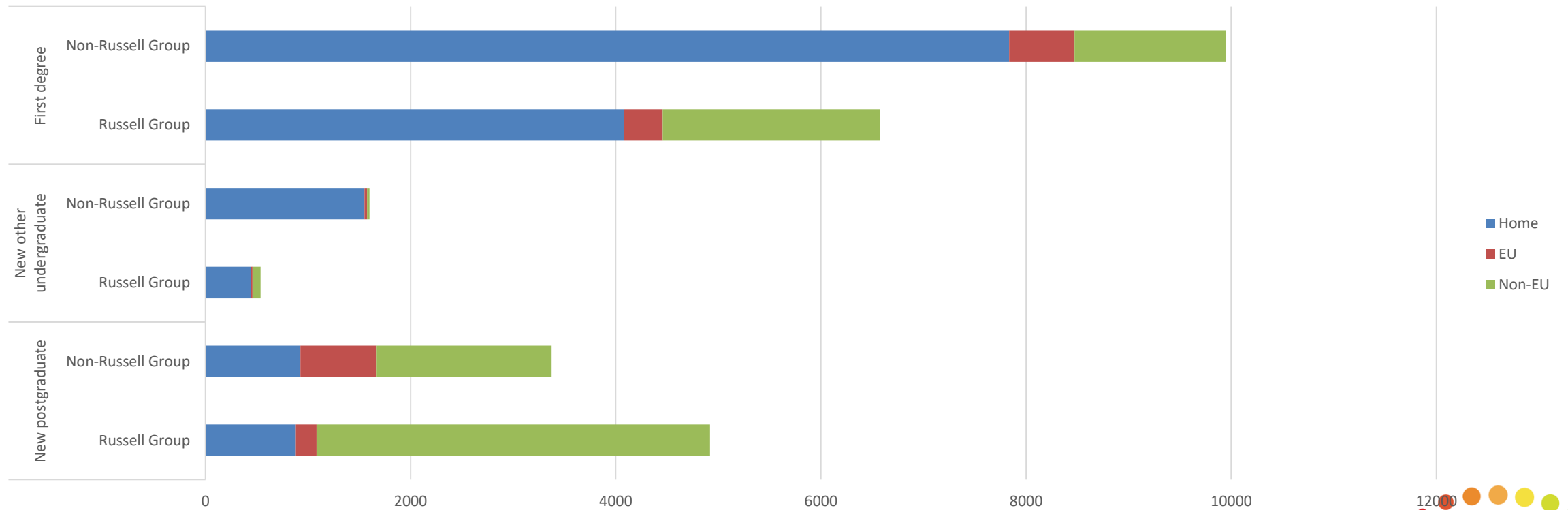
Regional enrolments, other UG, 2019/20



Regional enrolments, postgrad, 2019/20



(Non-)Russell Group enrolments 2019/20

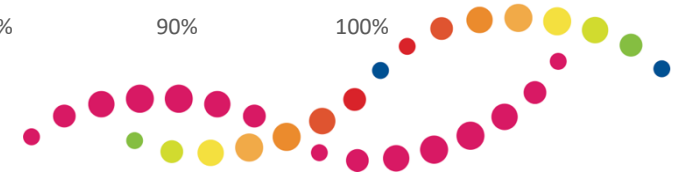
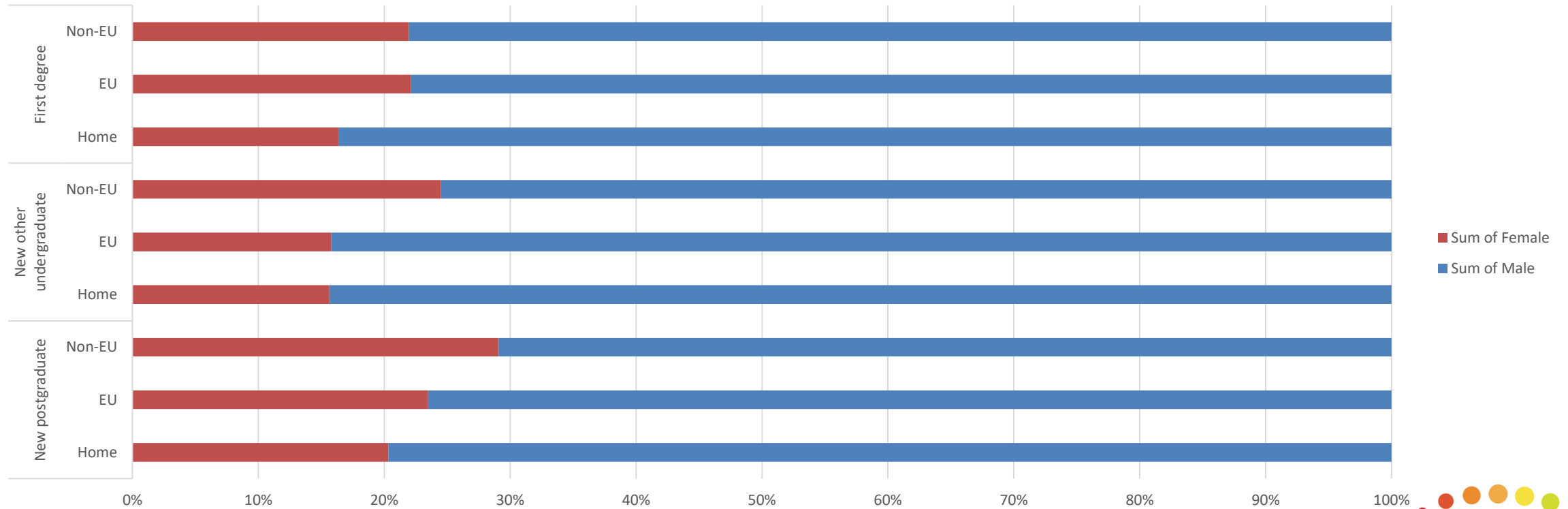


Focus on: International enrolments

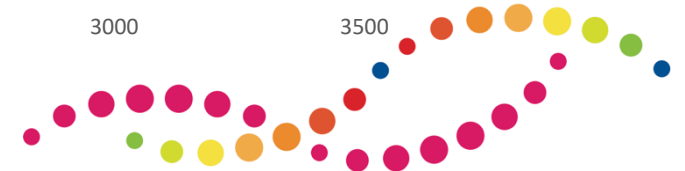
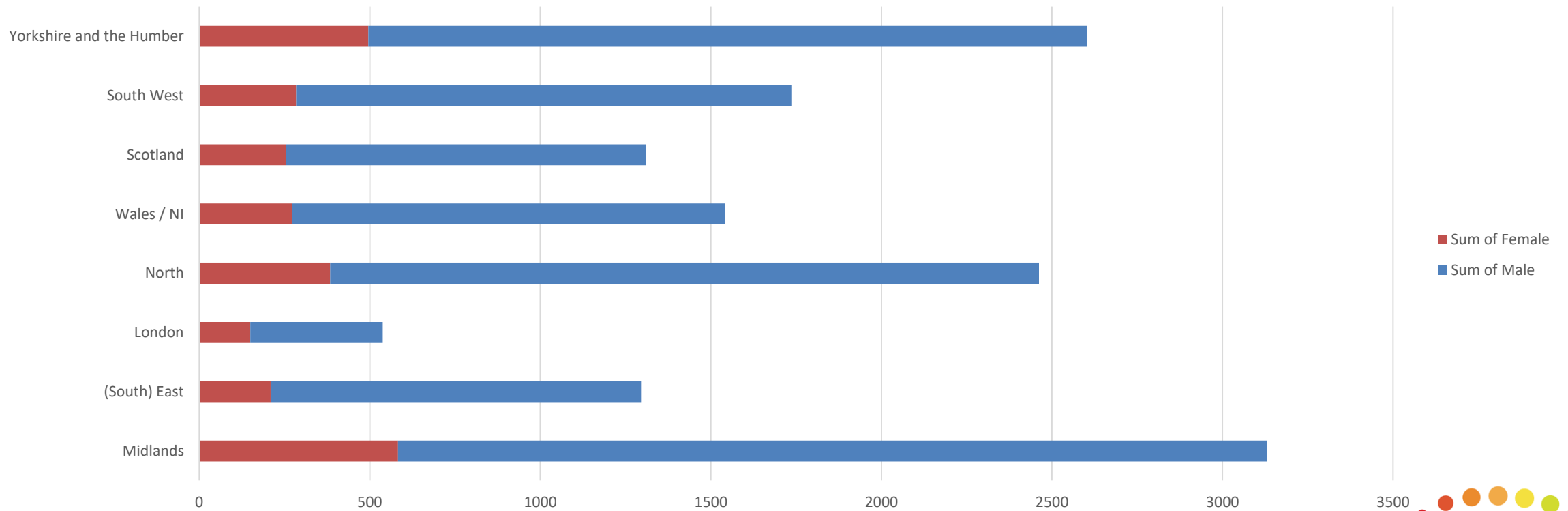
- Smaller proportion of undergraduate enrolments were from overseas compared with last year's survey
- Postgraduate engineering courses see a much higher proportion of overseas enrolments, especially within the Russell Group (who see higher international enrolments overall).
- Nearly 1 in 3 international enrolments overall were in Electrical, electronic & computer engineering. This true for both men and women.
- The proportion of international women enrolling in Mechanical engineering is half of the proportion of international men.
- Chemical, process and energy engineering shows the converse pattern



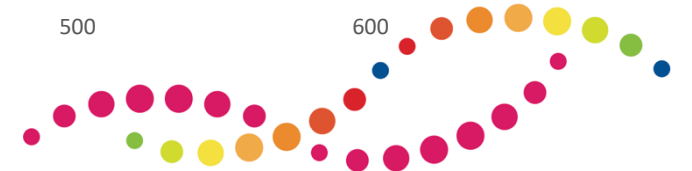
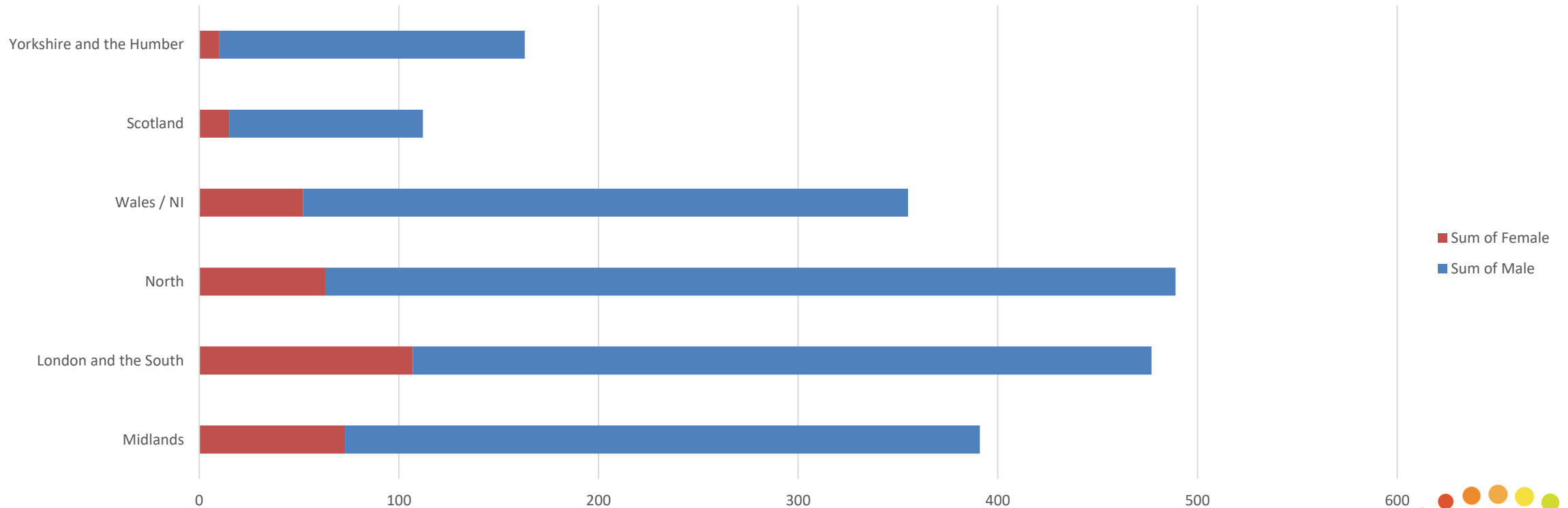
Female enrolments 2019/20



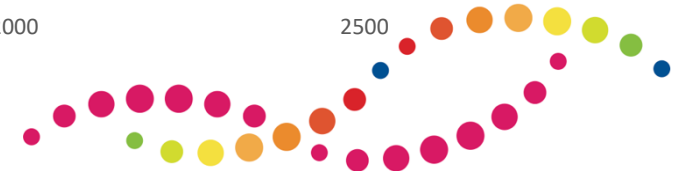
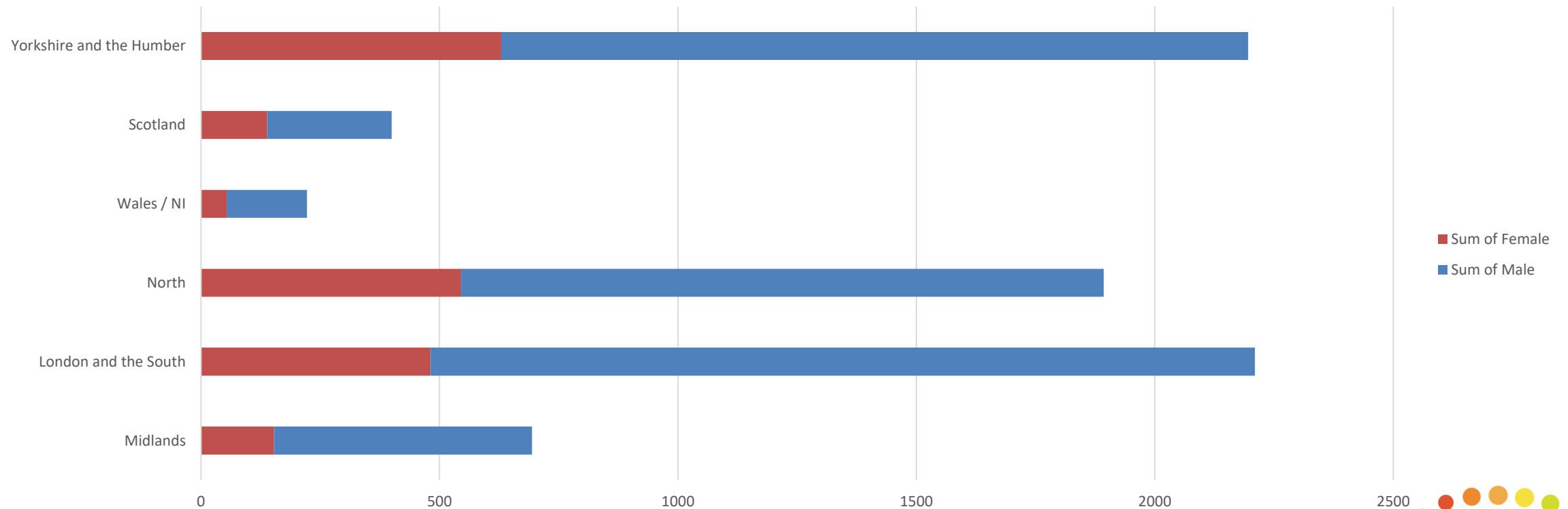
Female enrolments by region: first degree



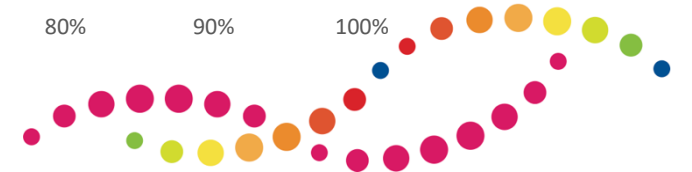
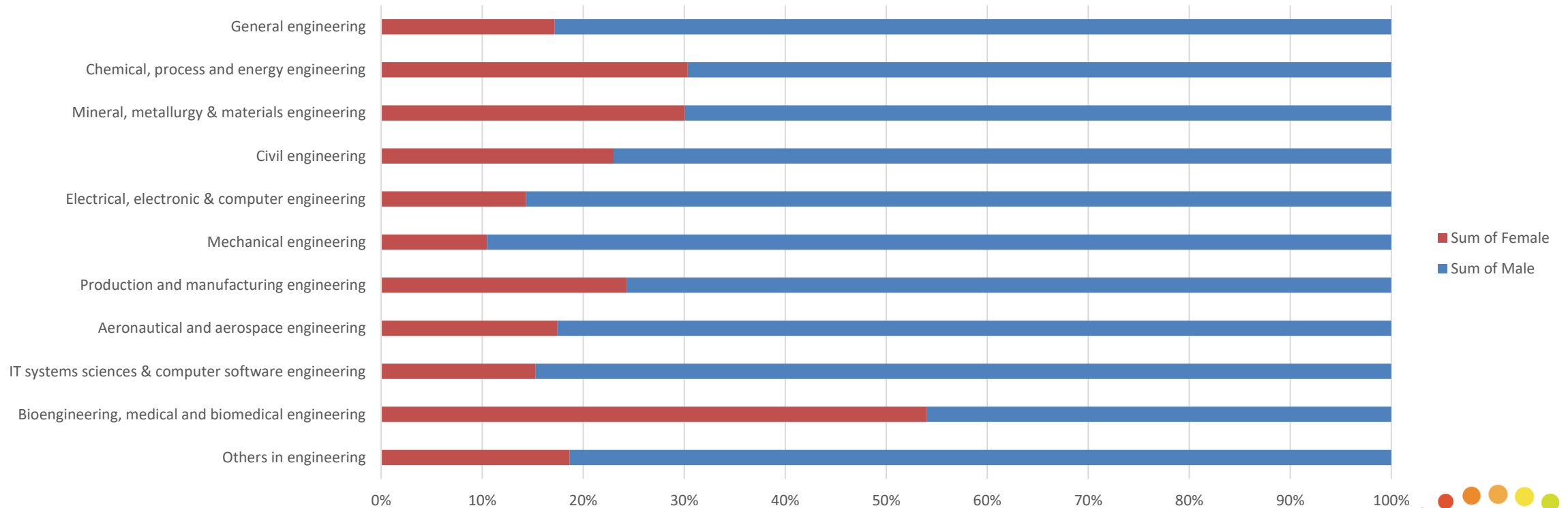
Female enrolments by region: other UG



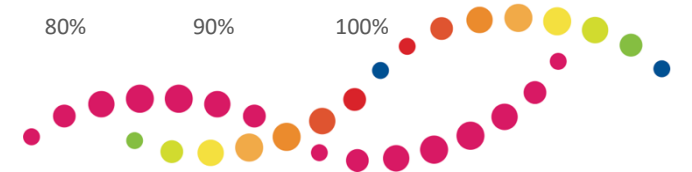
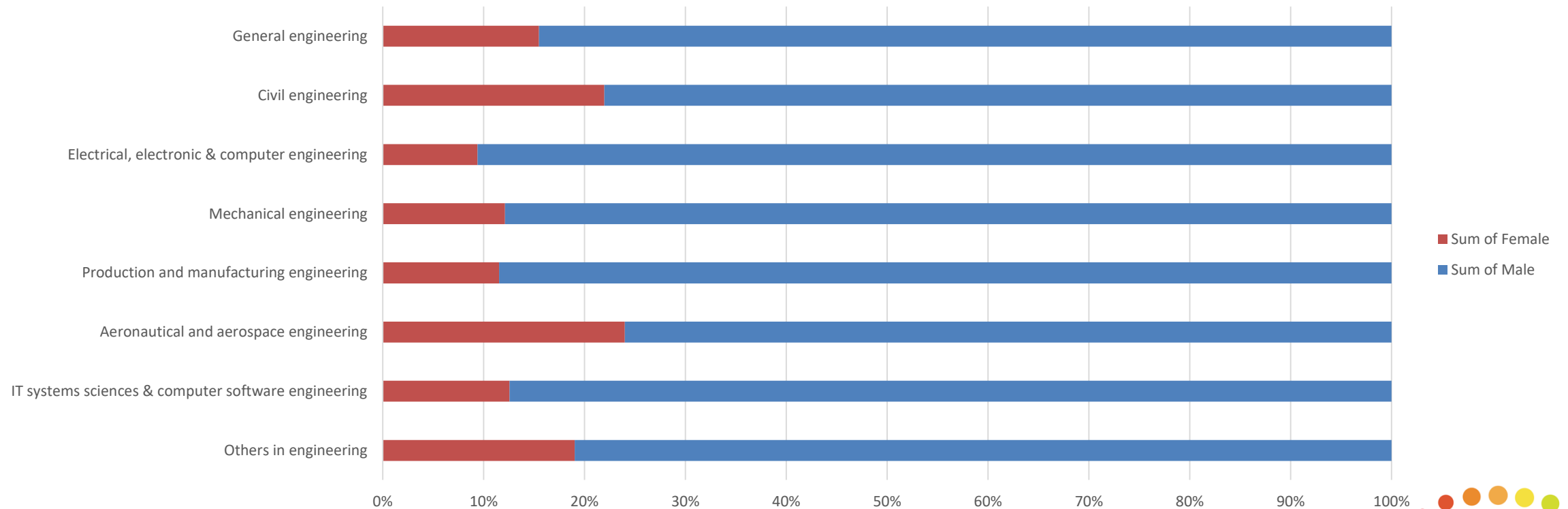
Female enrolments by region: postgrad



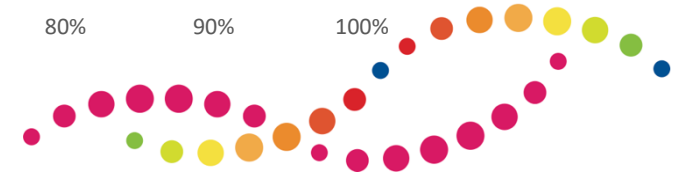
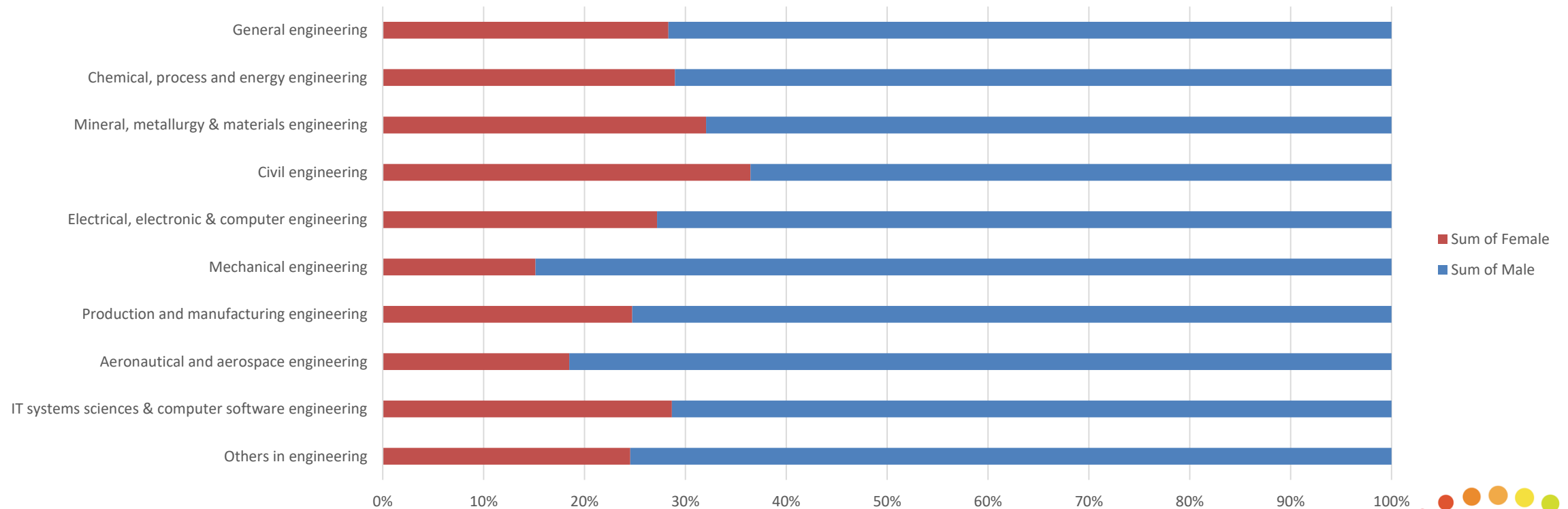
Female enrolments by discipline: first degree



Female enrolments by discipline: other UG



Female enrolments by discipline: postgrad

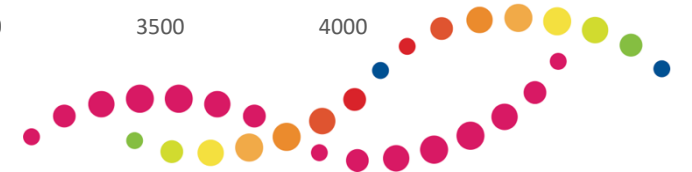
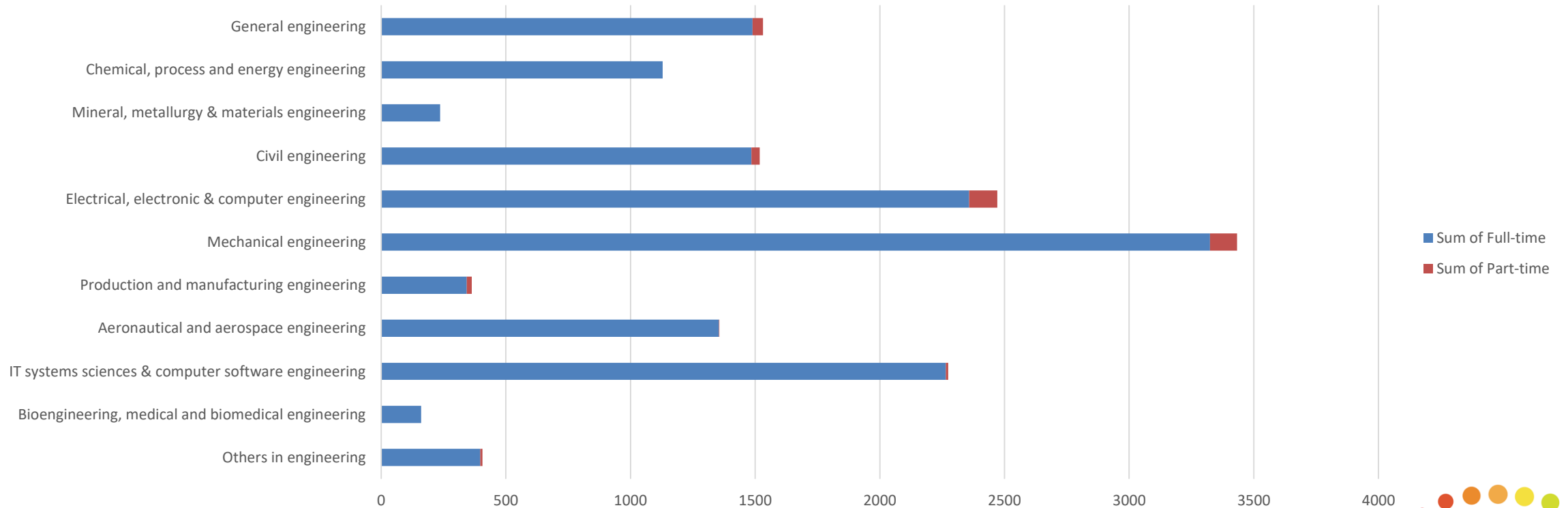


Focus on: women in engineering

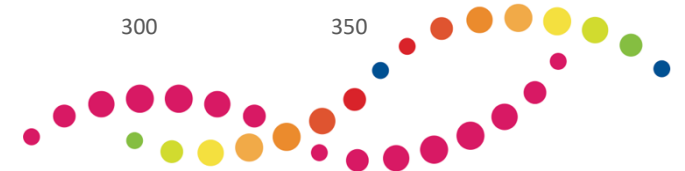
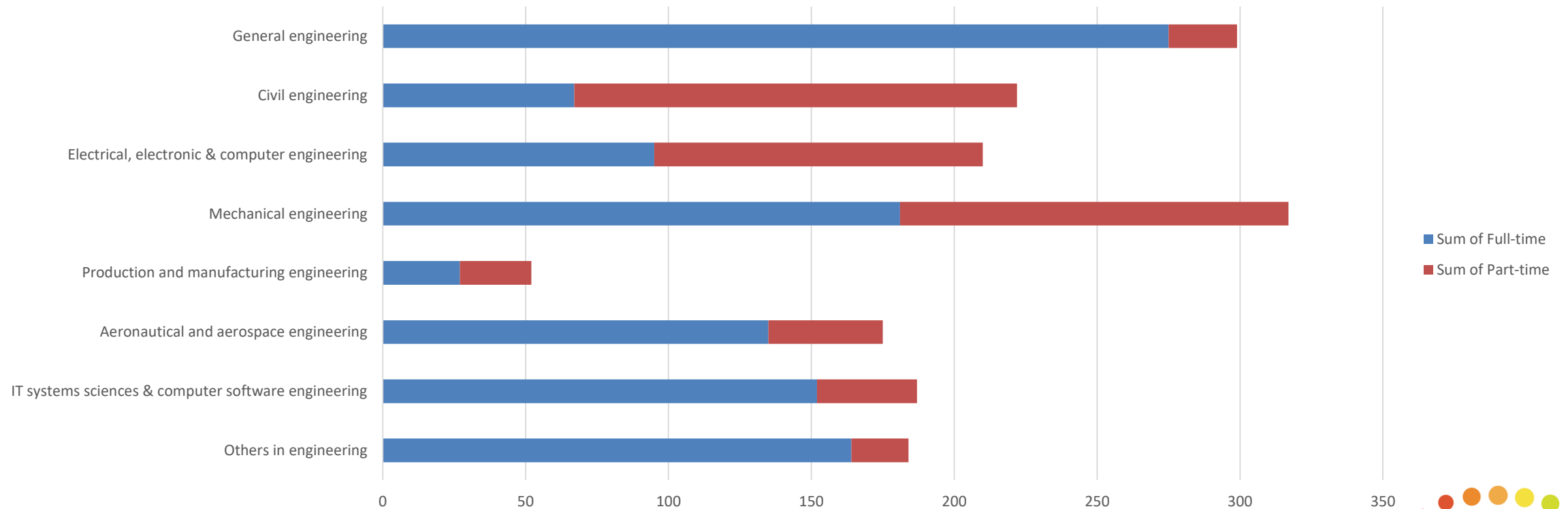
- Recruiting from further afield increases female enrolments
- Particularly if you're in the Russell Group...
- And enrolling postgraduates
 - Just over half of the women enrolled in our sample were at RG universities.
 - Females were more dominant in the RG sample at PG level; it's fewer than half at UG level
 - Over 2/3 of males in our sample at first degree level of study were at RG.
- Other undergraduate courses not attracting women as well.
- General and civil engineering accounted for 1 in 3 of all home female enrolments.
- EU females favoured Aeronautical and aerospace engineering, true at UG and PG (but more of a PG phenomenon)
- Over half of first degree enrolments sampled in Bioengineering, medical and biomedical engineering were female.



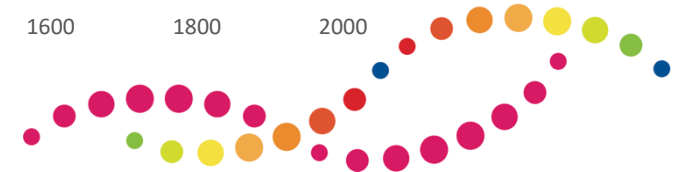
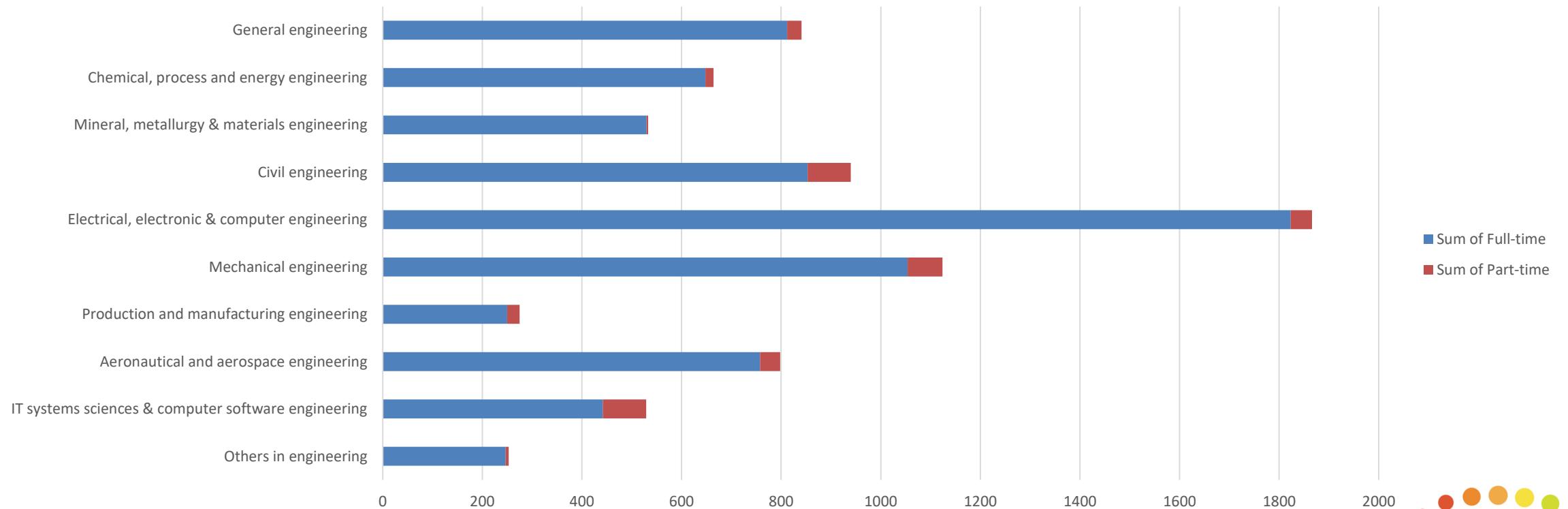
Part-time enrolments (discipline): first degree



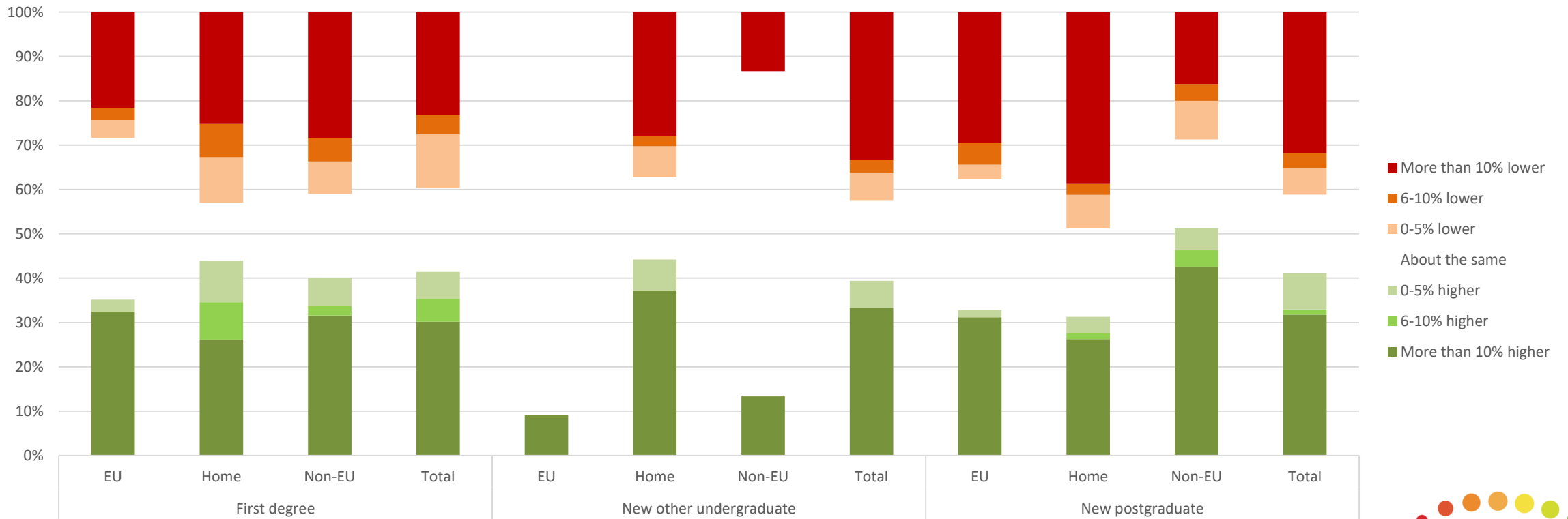
Part-time enrolments (discipline): other UG



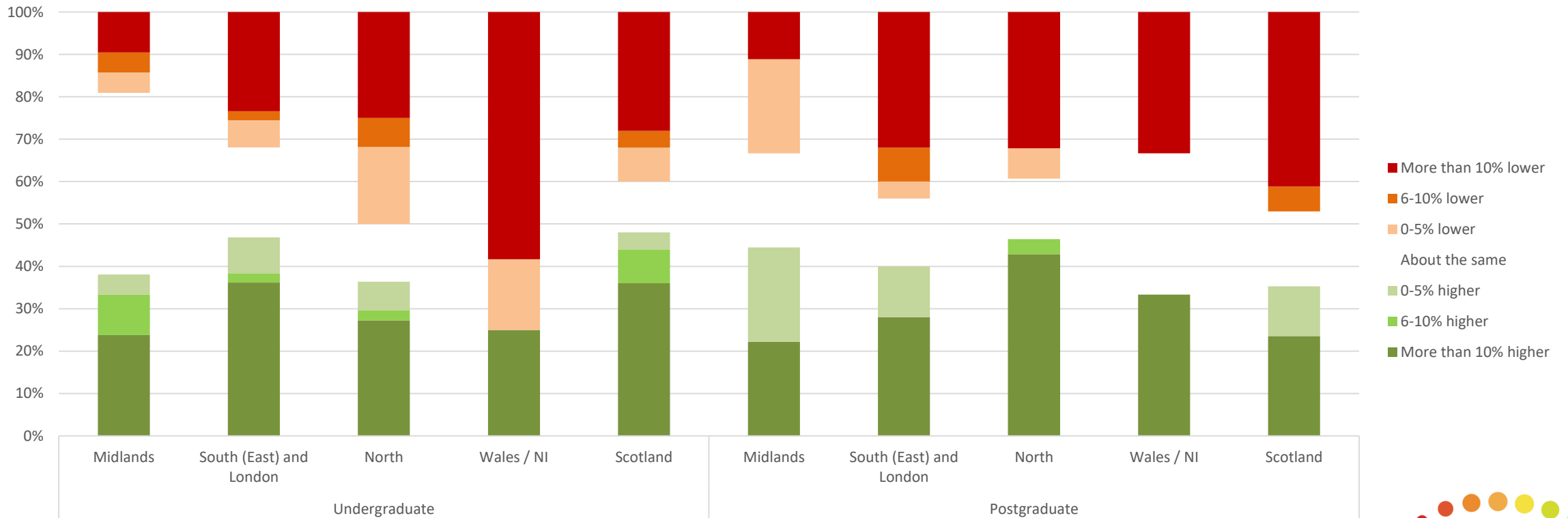
Part-time enrolments (discipline): postgrad



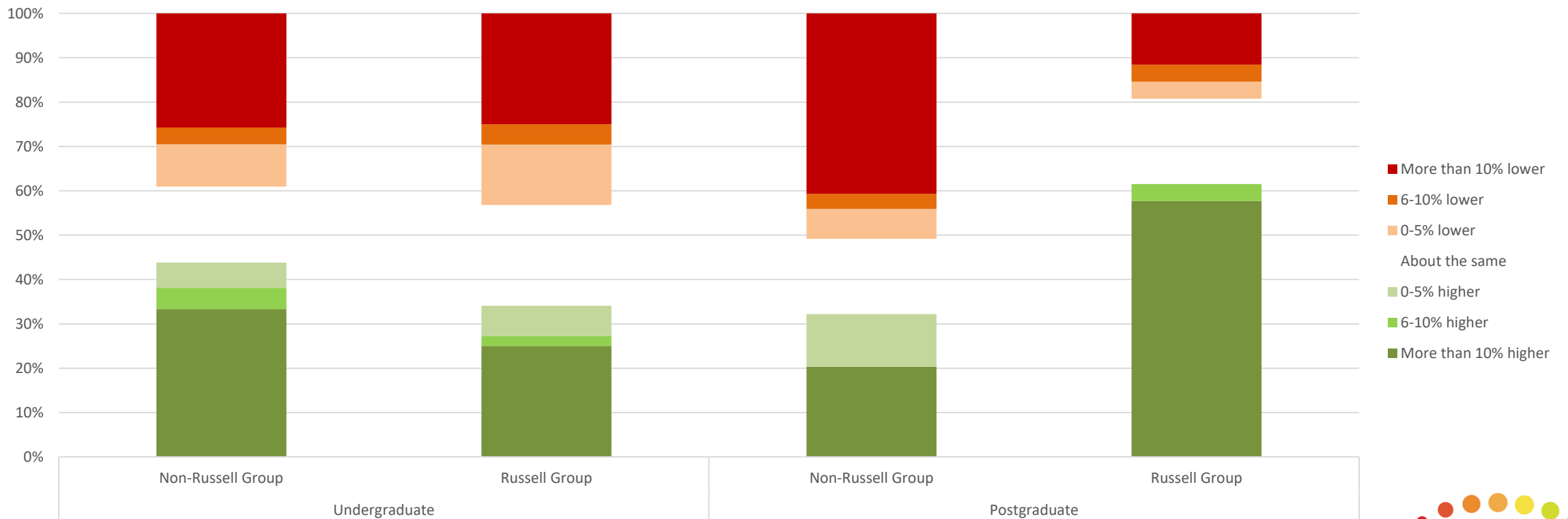
Higher or lower enrolments: domicile



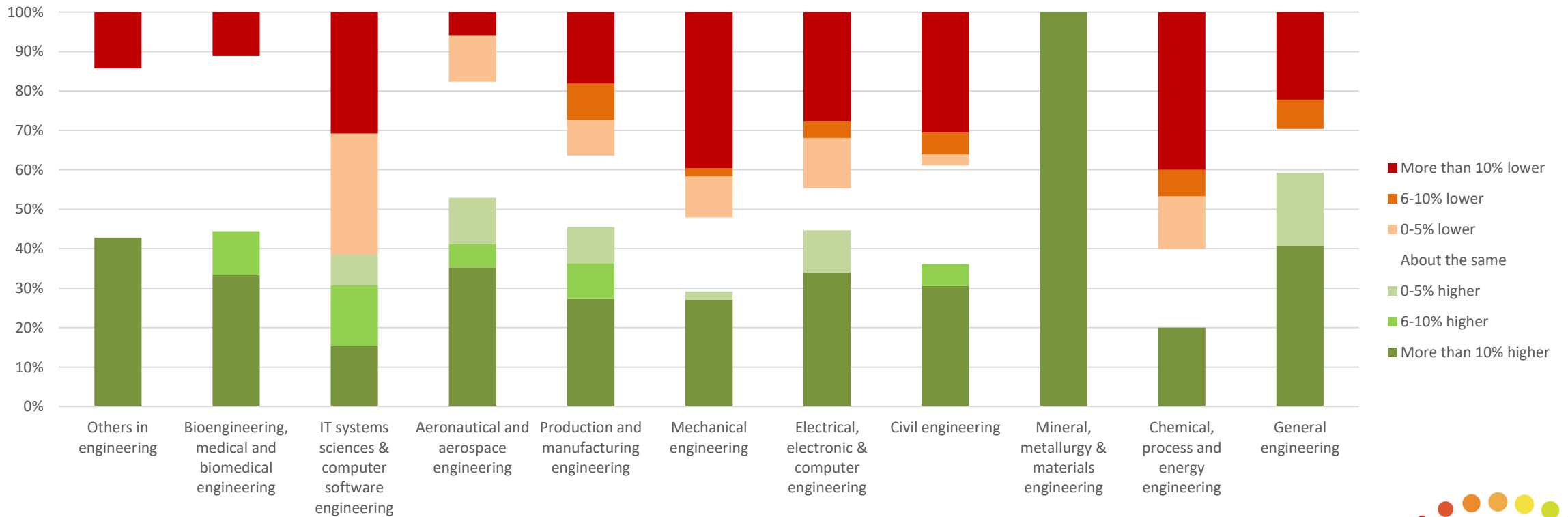
Higher or lower enrolments: regional



Higher or lower Russell Group enrolments



Higher or lower enrolments by discipline



Closing remarks

- Recruitment / selection is made in the context of institutional strategies and targets, which, of course, vary!
 - E.g. some of the fluctuations in numbers are a conscious decision to reduce cohort size, rather than solely fluctuations in market.
- Is the value of this survey greater than the burden to contribute to it?
 - Engagement has been compromised by other factors this year, just a blip?
 - How can we help?
- Questions



Thank you

- I will share my slides with you in .pdf format
- 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 assurances:
 - We already pay due diligence to GDPR
 - Some variables are grouped to reduce small numbers in presentation
 - Bars with potentially identifiably small numbers are suppressed
 - %s also used to protect institutional confidentiality



Please feed back

- 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?

