

The RSS Data Science Section

EFSPI Statistical Leaders' Meeting

1st July 2021



Introduction

The Data Science Section of the [Royal Statistical Society](#) is the membership group representing data scientists in the UK. It was established in 2017 to ensure the long-term success of data science as a profession.

Our organising committee includes Data Science and AI leaders from organisations like Unilever, the Alan Turing Institute, AstraZeneca, the Office for National Statistics, Microsoft and The Economist. We have over 3000 members



What have we been up to in the last 4 years?

- Published report on 2018 workshops on “[The Industrialisation & Professionalisation of Data Science](#)”
- Produced a “[Guide for Ethical Data Science](#)” + Ethics “happy hours”
- Conducted [surveys of practising data scientists](#)
- Run sessions at the RSS conference, e.g. CYOA
- Influenced public sector policy – e.g. [UK government AI strategy](#)
- Worked on professional standards and accreditation for Data Science
- Working with core RSS to identify specific Data Science offerings
- Hosted numerous in-person & online events & [blog posts](#)
 - [Including on “Data Science vs Statistics”](#)



What has changed (or not) in 4 years?

- The rise of “AI” – both as a buzzword and a field
- A focus on ethics & governance
- Emerging regulation
- Continued lack of a completely clear definition of data science
- More CDO / CDSO / CDS / CDAO roles in companies
- My role! Head of Advanced Analytics → VP of Data Science & AI
- Data-centric & high performance technology architectures
- Huge competition for talent
- More evidence of genuinely impactful and scaled solutions, as opposed to one-offs

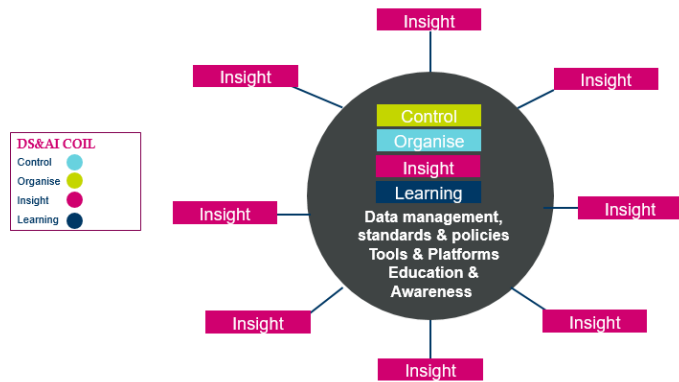


RSS Data Science Section shortly to be renamed to “Data Science & AI section”



Case study: Data Science & AI @ AstraZeneca

Hub and spoke model in R&D



Clear and aligned strategy

Data

- Focus on making R&D data FAIR: Findable, Accessible, Interoperable & Reusable – as well as ethical
- Prioritising the data domains that have greatest impact on the science through AI

Technology

- Building tech platforms to enable delivery of scaled, transformative solutions
- Making AI available at our employee's fingertips via apps & tools

People

- Creating great careers and training for new and existing employees
- Driving the cultural change required for the organisation to fully embrace and realise the benefits of AI

Agreed scientific focus areas

BioPharma	Oncology				
 Optimising our development programmes <ul style="list-style-type: none"> Maximising eNPV via PTRS & speed* 	 Accelerating & streamlining our research <ul style="list-style-type: none"> AI-driven targets & molecules 	 Transforming the science for our patients <ul style="list-style-type: none"> Reimagined diagnosis & prediction 	 Maximize Success and Speed Across Portfolio <ul style="list-style-type: none"> Using Internal Data, Real World Evidence, and Competitive Intelligence at speed 	 Faster Drug Discovery and Development <ul style="list-style-type: none"> Optimize Candidate Drug Investment Decisions 	 Seize the white space for Transformative Growth <ul style="list-style-type: none"> Broadening the Value Proposition for New Business Models
Enabling	Data & tools available: go from weeks to days	New AI apps available through app store		Ramp up Data Science Academy and Symposium	

Validated projects & impact

Direct Financial Impact over 500M in 1H to date

Q1: \$184m
Q2 to date: \$343m
Total: \$527m

Wide range of contribution

35 projects valued

Hub service is pivotal in maximizing productivity of DS&AI

- Improve productivity between **20% and 100%**
- Enabled analytical projects to be delivered otherwise would have been rejected