Data Science @ BEDS
Some Lessons Learnt

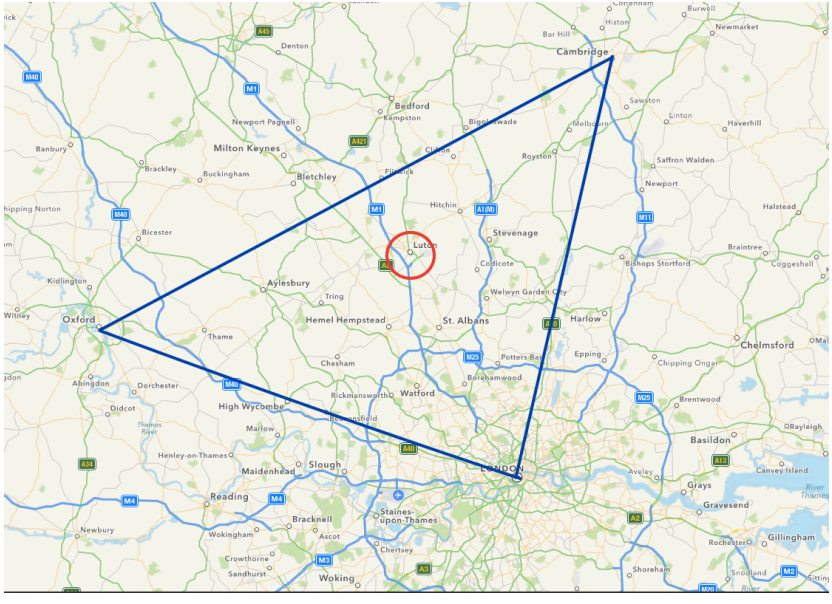
EDISON Champions Conference
Madrid

Ingo Frommholz
Marc Conrad

University of Bedfordshire
Luton, UK

University of Bedfordshire

- Main campus in Luton (half-way between Oxford and Cambridge); DS currently in Milton Keynes
- About 15,000 students at the University in total.
- Within the Department of Computer Science: about 700 Undergraduate and 150 postgraduate students.
- ‘Post 92’ University: application oriented, vocational, access and opportunity, widening participation.
- Links with (local) industry; also various research projects.



Data Science Programme

- BSc (Hons) Data Science
- Official web site:
  - http://www.beds.ac.uk/howtoapply/courses/undergraduate/next-year/data-science
- Course specification ‘Course Information Form’:
  - https://bapps.beds.ac.uk/sites/studentcourseinfo/Shared%20Documents/CATS_CIF_BSDSCADF_LIVE.pdf
- Units (aka Modules) are defined in ‘Unit Information Forms’
- Focus on application and industry collaboration

Lessons Learnt

- We might have a labelling problem
- Renamed our programme to **Computing and Data Science** (MK campus)
- Our Information Systems programme went ‘date scienc-y’; renamed to **Information and Data Systems** at Luton campus
- Reflects our engineering approach to data science
- Adheres to BCS criteria (mathematics, security)
- Streamlined with our existing curriculum
- Approval event in February 2017 (period review)

Computing and Data Science Modules

Year 1 (Level 4, 30 credits)

- Introduction to Software Development
- Principles of Programming
- Mathematics of Data
- Computer Systems Structure

Year 2 (Level 5)

- Operational Information Security Management
- Distributed Data Management and Semantics
- Computing and Data Science Placement

Year 3 (Level 6)

- Data Engineering, Presentation and Retrieval
- Research Methodologies and Emerging Technologies
- Social Professional Project Management and Ethics
- Undergraduate Project

(subject to approval)

Information and Data Systems Modules

Year 1 (Level 4, 30 credits)
- Introduction to Software Development
- Principles of Programming
- Mathematics of Data
- Computer Systems Structure

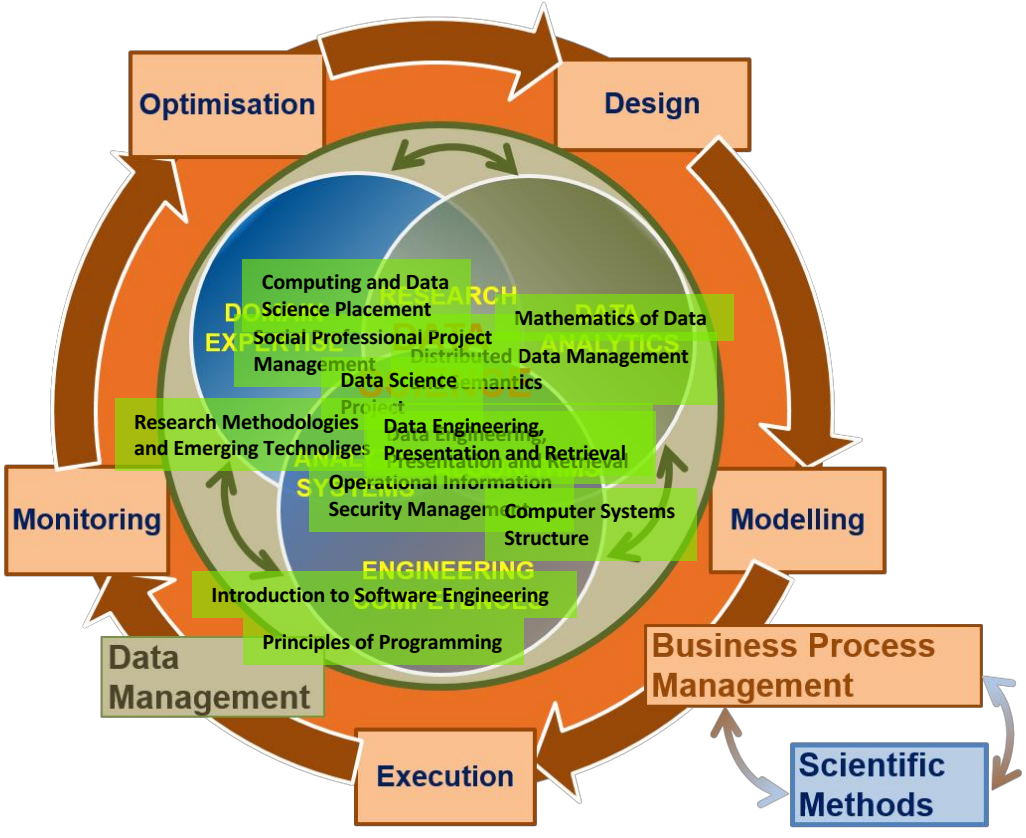
Year 2 (Level 5)
- Operational Information Security Management
- Distributed Data Management and Semantics
- Decision Support Systems and Data Mining
- Systems Development and Modern Database Practices

Professional Practice Year (optional)

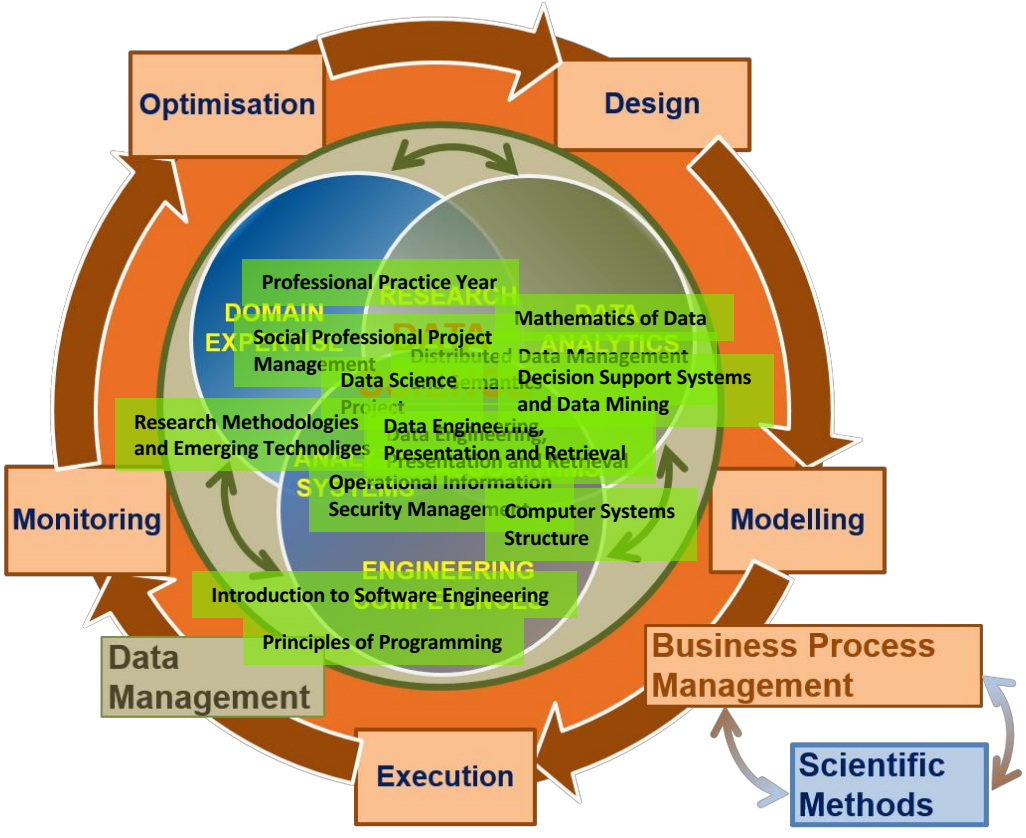
Year 3 (Level 6)
- Data Engineering, Presentation and Retrieval
- Research Methodologies and Emerging Technologies
- Social Professional Project Management and Ethics
- Undergraduate Project

(subject to approval)

Data Science Competence Groups
Computing and Data Science



Data Science Competence Groups
Information and Data Systems



How did EDISON help us?

- Considered EDISON for approval of our programme
  - EDISON's expert knowledge well received
- 'Benchmark' for our programmes (e.g. embedding modules in competence groups)
- Guidance for creating the curricula
- Reassurance (in line with demands of Data Science market)