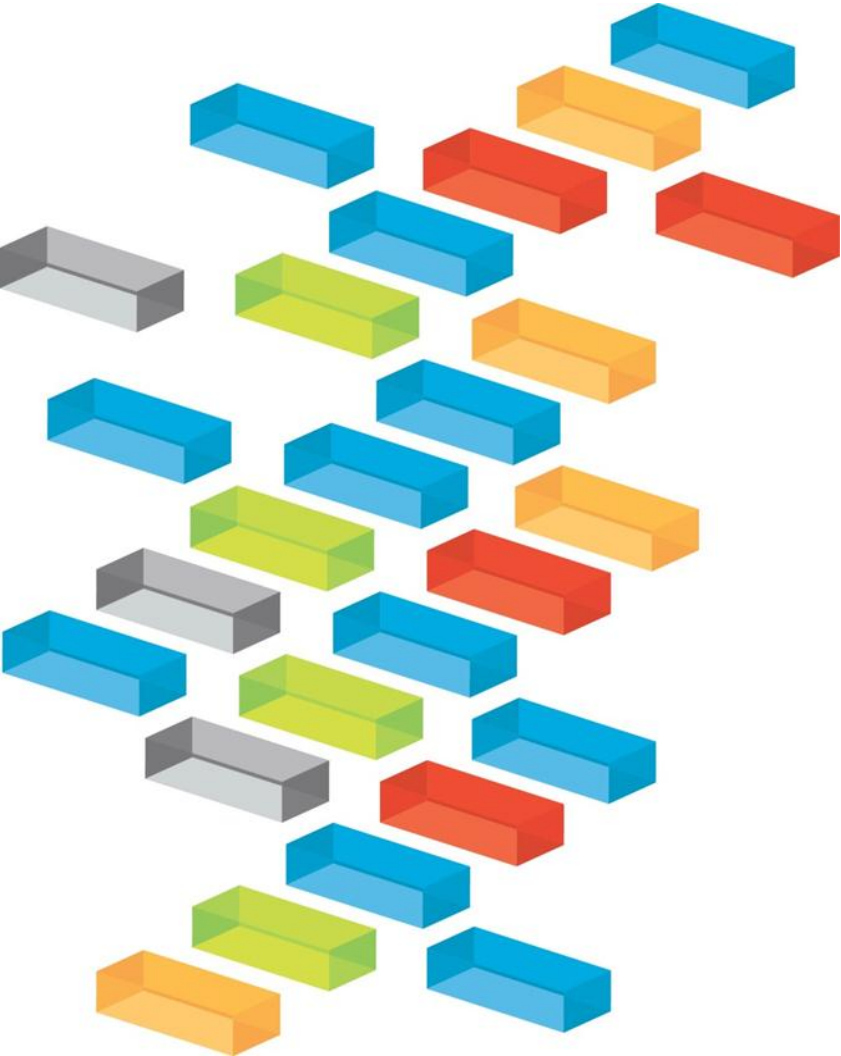


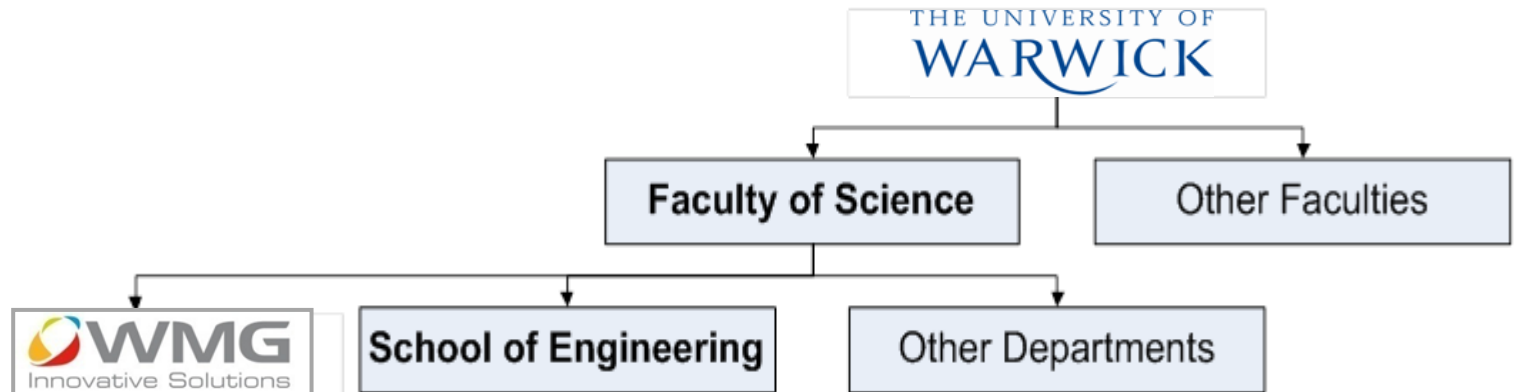
An Overview of WMG at the University of Warwick, UK



Dr Steve Maggs
Principal Teaching Fellow
Steve.maggs@warwick.ac.uk

The University of Warwick

- Founded in 1965 on a green field site
- A premier division and research-led university
 - University of the Year 2014-15 (Times and Sunday Times)
 - 65% of Research rated world leading or internationally excellent
- International Partnerships
 - Monash University, New York University (NYU) and CUSP
- Total number of students ~ 23,000
- Total number of staff ~ 5,000



University Campus



WMG: “facilitating technology transfer and knowledge for industry”



Education

- **1,500 individuals on postgraduate and post-experience education** from over 45 countries
- Centres in UK, India, China, Cyprus, Malaysia, Singapore and Thailand
- **Custom programmes**, e.g. for Rolls-Royce, AstraZeneca, Network Rail, JLR, Lloyds Banking Group, Ericsson, BAE Systems, UTC Aerospace Systems
- **Part-time open MSc and BEng programmes**
- EngD and PhD Research Degrees
- WMG Academies for Young Engineers (in Coventry with an additional centre opening in Solihull)

Research

- Covering 5 main themes:-
 - Design; Materials; Manufacturing; Systems; Business
- Contributes 20% of the University’s total research activity
- R&D Testing Facilities
- High Value Manufacturing Catapult
- Plus the new £1 billion/10-year Advanced Propulsion Centre Hub located at Warwick

WMG: 450 staff across six buildings on campus, £180m annual programme

- Engineering Doctorate
- Part time, Professional Programmes (masters)
- Custom Programmes
- Full Time MSc
- Undergraduate (Degree Apprenticeship)
- Schools

WMG Professional and Executive (part-time) Programmes

- High-quality, residential courses delivered by WMG
- Intended to develop **high-potential employees** and to extend the capabilities of **business managers/leaders**
- Designed to be **adaptable** to meet the needs of the business and employee
 - Scale: a **single module up to a full MSc**
 - Modules: typically 4.5 days or 2.5 days in duration
 - Content: **wide range of subject areas**
 - Schedule: **high degree of flexibility**
- Improve the capability of the employee and the organisation
 - Student led **company-based projects**
- Master's level streams
 - Engineering Business Management
 - Programme and Project Management
 - Supply Chain and Logistics Management
 - Service Management and Design
 - Manufacturing Systems Engineering
 - International Trade, Strategy and Operations

Some of our Custom Programmes:

- **UTC Aerospace Systems - 'GOLD'**
 - A Postgraduate Award (PgA) in Business Leadership, with employees completing modules in Financial Analysis and Control Systems, Leading Performance, Creating Change Capability and a company based project

- **BAE Systems - 'Developing You' Programme**
 - Over a 13 year period, WMG delivered the Procurement 'Developing You' programme to over 1,100 employees. It improved the purchasing skills of individuals in the supply chain and company measured business benefits ran into tens of millions of pounds

- **Supply Professionalism Programme**
 - A Postgraduate Certificate for supply managers in AstraZeneca, Fuji DB, PZ Cussons, GSK and Syngenta. Running for 15 years and regularly refreshed, it is currently at cohort 40

- **Jaguar Land Rover - 'Technical Accreditation Scheme'**
 - WMG leads a consortium of universities to deliver a unique portfolio of taught postgraduate courses to employees working in future vehicle technologies and virtual engineering

- WMG Full Time Masters portfolio consists of 12 MSc degrees.
- Designed to develop skills in leadership and management
- Suitable for careers within technology-led industries
- Integrated and flexible in both module and dissertation choice
- Practical and applied so students engage actively with their studies
- Industry input into design, development and delivery of course material
- Substantial support in developing research and analytical skills through major project/dissertation
- Strong international mix: Currently 762 MSc students based at WMG where 60 different nationalities are represented

Cyber Security and Management

E-Business Management

Engineering Business Management

Innovation and Entrepreneurship

International Technology Management

International Trade, Strategy and Operations

Management for Business Excellence

Manufacturing Systems Engineering

Process Industry Business Management

Programme and Project Management

Supply Chain and Logistics Management

Service Management and Design

Applied Engineering Programme (AEP)

- **Part-time 'Open' company sponsored undergraduate degree**
 - **BEng degree in Applied Engineering**
 - Modular format with block release
 - **Company based assignments and projects**
 - **Support between blocks** via VLE (Virtual Learning Environment) and from Tutors
 - **Allows for a non-traditional entry route** (for those not possessing A-Levels)
- Common programme path during Years 1 & 2
- Engineering specialisation during Years 3 & 4
 - Manufacturing Systems
 - Product Creation
 - Business
 - Rail
 - Other streams under discussion

- 640 students ages 14 - 19
- Studying Engineering with Digital Technology/ICT
- Curriculum driven by employers
- 40 employers engaged including JLR, National Grid, Prodrive, Ricardo, Bosch, Tata, Dassault and SMEs
- New build, opened September 2014
- Sited near the University
- A second WMG academy is planned to open in 2016



WMG's UK Education and R&D Centres



International Manufacturing Centre

- Engineering Technology Hall
- Product Evaluation and Customer Interface Technologies Centre
- Research: Automation Systems; Cyber Security, Digital Lifecycle Management; Metrology; Visualisation
- Postgraduate Education (Full-Time Masters; Research Degrees)
- Undergraduate Education (AEP)



International Digital Laboratory

- WMG centre High Value Manufacturing Catapult
- Institute of Digital Healthcare
- Research: Energy and Electrical Systems; Engineering Materials and Manufacturing; Materials Processing and Electrochemical Engineering; Sustainable Materials and Manufacturing
- Jaguar Land Rover Research and Advanced Engineering

WMG's UK Education and R&D Centres (cont.)



International Automotive Research Centre

- Energy Innovation Centre
- Battery Manufacture Scale-Up and Test Facility
- Tata Motors European Technical Centre
- Tata Steel R&D Centre



International Institute for Product and Service Innovation

- SME Programmes
- Research: Business Transformation; Experiential Engineering; Multifunctional Systems
- Technology Hall and Demonstrators
- Host to Advanced Propulsion Centre

WMG's UK Education and R&D Centres (cont.)



International Institute for Nanocomposites Manufacturing

- Characterisation laboratories
- Wet chemistry laboratory
- Processing Hall
- Applied Research in aerospace; automotive; electronics; pharmaceuticals; medicine; security; telecommunications



Engineering Management Building

- Part-time Professional and Executive Education Programmes
- Teaching and Learning Facilities
- Arden Conference Facilities