# Career Route Map for Engineering in England

# Tomorrow's Engineers

## Where do I start?

## School / College / Workplace

- GCSE 3-1 (D-G)
- BTEC Level 1 / NVQ 1
- Traineeships: For 16-23 year olds qualified below Level 3

# School / College / On-the-job training

- Apprenticeship (Intermediate): Engineering, IT, Construction, Built Environment, Manufacturing
- GCSE / IGCSE 9-4 (A\* to C):
  Maths, Science (ideally triple science)
  (Useful subjects: D&T, ICT, Computing, Engineering)
- BTEC Level 2 / NVQ 2: Engineering,
  Construction & Built Environment, Science, ICT

# 6th Form / College / On-the-job training

- Advanced Apprenticeship: Engineering, IT, Construction, Built Environment, Manufacturing
- A level: Maths, Physics (Useful subjects: Chemistry, Computing, D&T, Further Maths)
- **IB Diploma:** Higher Level Maths, Physics Chemistry for chemical and biomedical engineering
- Tech Level Qualifications (T-levels), e.g.
  BTEC Level 3 / NVQ 3: Engineering,
  Construction & Built Environment, Science, ICT

# What next?

## **Training and Education**

#### **Advanced / Higher Apprenticeship**

- Available in a variety of industries including: Advanced Manufacturing, Aerospace, Automotive, Power, IT, Construction, Sustainable Technologie
- Combine workplace training with study
- Typically 3 to 4 years
- Can include vocational aualifications or a degree
- Approved by the Engineering Council

#### Higher National Certificate (HNC) / Diploma (HND)

- Vocational higher education qualifications, often taken whilst in employment
- Can be taken at F.E. colleges and universities
- Typically 1 to 2 years

#### **Foundation Degree (FD)**

- Usually undertaken as a part time audification whilst in employment
- Typically 2 years

Further learning to Bachelor's level required for IEng registration

#### **Degree Apprenticeship**

- Combine workplace training with studying towards Bachelor's or Master's dearee
- Typically 3 to 6 years

#### University Degrees

- In general engineering, a specific field of engineering, computer science manufacturing or technology
- Accredited by the Engineering Council

#### Bachelor's Degree (BEng / BSc)

- 3 to 4 years
- Can include a year working in industry / a year abroad
- Can be followed by a 1-year MEng/MSo to register as a Chartered Engineer

#### Master's Degree (MEng / MSc)

- 4 to 5 year.
- Can include a year working in industry a g year abroad

# **Progressing to...?**

**Professional Registration** 

Engineering Technician (EngTech) or ICT Technician (ICT Tech)

**Incorporated Engineer (IEng)** 

**Chartered Engineer (CEng)** 

Visit the Engineering Council's website at www.engc.org.uk

For details of all routes into engineering, go to: www.tomorrowsengineers.org.uk

Where you can also find: Case studies, quizzes, careers leaflets, posters, activities and postcards.

and lots more...









LEVEL

LEVEL

2

LEVEL