

## **Enterprise and entrepreneurship - IET**

The Engineering industry makes up nearly one-fifth of the UK economy and employs over 4.5 million people. The UK is still the worlds seventh biggest manufacturer. Engineers have embraced new technologies and materials to create alternative energy sources, such as, wave power (from the sea) and credit card sized computers that plug straight into your TV (Raspberry Pi). To be at the leading edge of engineering development, it is important for engineers to share their ideas. This is where the Institution of Engineering and Technology (IET) plays a vital role. The IET is a world leading professional organisation with the vision to share and advance knowledge, promoting science, engineering and technology across the world.

Engineering skills are particularly effective when combined with enterprise. An entrepreneur is someone who is prepared to sacrifice their own time, effort and money to turn a good idea into a marketable product. James Dyson is an example of a modern engineer entrepreneur. He invented the ball wheelbarrow and the Dyson Dual Cyclone Vacuum cleaner. Entrepreneurism is not for everyone because it requires hard work, long hours and the ability to keep going in difficult times.

Nature of reward	Description
Personal satisfaction	The opportunity to do something different. To choose your own career path.
Financial	The opportunity to reap a profit from your hard work and enterprise.
Independence	The opportunity to make your own decisions. As an owner you can set your own targets and standards.
Self-fulfilment	Being able to use your own skills and abilities. What you enjoy becomes your career.

The key to being a successful entrepreneur lies in the ability to take an idea and then, through the process of innovation, develop it in such a way that it becomes a marketable product or service. Research indicates that there are a number of characteristics that are quite likely to be present in high-achieving entrepreneurs:

- The ability to learn from others. entrepreneurs tend to be good at networking. They benefit from being members of organisation like the IET where they can learn best practice ideas from others.
- " Self confidence. a belief in their own abilities and ideas.
- "Being innovative/inventive. being able to generate ideas, either for new products/services or new ways of applying them.
- "Self motivation and determination. the drive to keep going and see things through.
- "Showing initiative. it is necessary to have not only the ideas for the business, but also the detailed plans to achieve objectives (both thinking and doing).
- "Analytical abilities . capable of researching and evaluating each aspect of the business, from development, through finance, production, to marketing and sales.
- The ability to make decisions and to take (considered) risks.
- " A focus on results that ensures products are sold for a profit.

The combination of many of these skills and qualities, with the right support, ensures ideas do not just remain as dreams but become viable businesses. Starting up a business involves a number of steps:

- **Step 1:** Generating good business ideas.
- **Step 2:** Market research in order to find out information such as whether potential customers like the product or service, how they would use it, how often they would use it and how much they would be willing to pay.
- **Step 3:** Identifying the target audience and the characteristics of the typical customer for the new product.
- Step 4: Identifying suitable sources of finance.
- Finally, all start-up businesses need a well worked business plan.

Matt Wilson is an engineer, an entrepreneur and regards himself as a pioneer in cloud based communications. After finishing school Matt became unemployed. His dad convinced him to use his interest in electronics to take an apprenticeship in electrical engineering. At the same time Matt set up the small company that was to become Crosby Communications PLC, a highly successful business. The toughest challenge Matt faced was getting the finance he needed to get the business off the ground. Once established, Matt turned his attention towards self-development, seeking to get himself and the company recognised for the technical abilities that he and it possessed. To gain this recognition he joined the IET and in the summer of 2010 Matt achieved IET Fellow status. Matt is now an active member of the IET, working on local committees and mentoring a number of new engineers in his area.



## Questions

1.	What is an entrepreneur?	
2.	Describe the reasons why people may become entrepreneurs.	
3	Explain three main characteristics of entrepreneurs.	
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4.	Analyse the challenges for new entrepreneurs when starting up a business.	

## Task

*Research* . in pairs or small groups carry out some research into an entrepreneur of your choice. Create a presentation which covers the following points:

- What was their motivation?
- What skills and qualities do they possess that have helped them to succeed as an entrepreneur?
- What challenges did they face?

Present your findings.

## What have you learned?

Pair up with a partner. Have a discussion about the learning from the session. Between you, decide on the five main points you have learned about enterprise and entrepreneurs.