## **CAREER READINESS**



## **Reading Lesson**

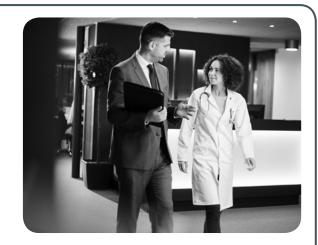
## **B1+** Business: Scientists Make Science, Businesspeople Make Business

#### Reading

Read the text. Who takes care of the business of science?

### Scientists Make Science, **Businesspeople Make Business**

One common image of a scientist is of someone who is in search of pure knowledge, someone who is outside the day-to-day concerns of other people. It is, of course, a myth. Scientists have always needed money to conduct their research and to live on. In the past, this might have come from a rich patron, who would give money or other rewards to a scientist in order to have their name connected with the latest discoveries. For example, when Galileo discovered the four brightest moons of Jupiter, he presented the discovery as a gift to



the Medici dukes. In return, he was given the position of court philosopher and mathematician. These days, funding is more likely to come from institutes and other organizations, who often want to see real-world applications of the science they pay for. Increasingly, scientists need to think about ways in which their research can be turned into a business to make money.

There are a number of challenges to be faced. Few scientists have the necessary business skills to get the most out of their discoveries. While they are very experienced at coming up with hypotheses that they then test, they often have little understanding of how markets work or who their potential customers are. Scientists are also used to being the smartest people in the room, and it can sometimes require a change in culture for them to realize that they need to rely on other people with a better understanding of how business works. Another difference in culture between science and business is that scientific advances often depend on sharing information between colleagues, whereas in business it can be very important to protect commercial information and prevent it from becoming known by your competitors.

The process of turning a scientific advance into a profitable business begins with recognizing the opportunity. With some research, such as the development of a new drug, the commercial possibilities may be clear. However, the applications are not always so obvious, and sometimes scientists need the advice of business consultants who are more familiar with the commercial world. Some universities have "technology transfer offices" which specialize in this area with the aim of making money for the organization that can then pay for more science.

Once the application has been identified, it becomes important to protect your intellectual property. The normal method is through patents. By taking out a patent, you make sure that no one else is legally allowed to use your idea or your technology, unless they pay you for a license to use it. This may sound like a simple process, but if your patent is valuable, other businesses will look for ways around it. The patent needs to be very carefully defined and then protected by legal means. The threat of legal action plays a larger part in the world of business than it does in the world of science.



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It is then necessary to use all the usual business tools to be successful: market research, marketing, and advertising, among others. Scientists who are focused on their own discoveries can easily fall into the trap of thinking that the world is just waiting for their products and that the benefits of their ideas are obvious. However, just as with many other successful products, it may take time and a lot of marketing before people are prepared to buy.

Another way of approaching the idea of making money from science is to start with a problem and design the science to solve the problem. One company, Deep Science Ventures, based in London, England, identifies problems in, for example, energy or healthcare and then puts together teams of scientists to find solutions to the problems. In theory, it should be easier to turn those discoveries into successful products because the demand has already been identified.

intellectual property (n): an idea or invention that is yours and which no one else is allowed to sell patent (n): an official document that gives you the right to sell a particular product

#### Vocabulary

Complete the sentences with words from the box.

		commercial	experienced	legal	pure	valuable	
1.	Something that is	is worth a lot of money.					
2.	The w	e world is the world of business and trade.					
3.	Something that is	nething that is is not mixed with anything else.					
4.	The world is the world of law and justice.						
5.	Somebody who is in an area knows a lot about it.						

#### Comprehension

Choose the correct option.

- 1. Scientists in the past could do their research because they ...
  - a needed less money for their work than today.
  - **b** found official positions that gave them the freedom to work.
  - **c** relied on rich individuals to pay for their research.



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- 2. One problem with scientists in business is that they are not used to ...
  - a working with people who know more than they do.
  - **b** sharing information.
  - c testing their ideas properly.
- 3. It's important to find commercial applications because they may help to pay for ...
  - a the advice of consultants.
  - **b** further research.
  - c cures for some diseases.
- **4.** Compared to science, people in business need to be more prepared to ...
  - a take people to court.
  - **b** define things carefully.
  - **c** follow the law.
- 5. Turning science into business may be helped by ...
  - a waiting until people demand a product.
  - **b** trying to solve a known problem.
  - c identifying companies that are possible customers.

#### **Thinking**

Should scientists focus on pure research or on research that has commercial value?

