

## 5.8 Research and development (HL)

# The importance of meeting needs

Early in this course, you learned that businesses have a key role in meeting human needs within the boundaries of the planet and solving real problems. This was represented in the following question, a variation of the one being asked in cities around the world as they apply the Doughnut Economics model to improve development.

How can our business support thriving people, in a thriving place, while respecting the wellbeing of people worldwide and the health of the whole planet?

The question assumes that businesses can and should support human and environmental thriving at both the local and global scale. To meet human needs and solve problems, businesses need to know what those needs and problems are. They can find out about needs and problems through their own market research and the research of scientists. Creative entrepreneurs and their businesses can then combine human, physical and financial resources to improve society and the environment through core business activities and business designs. You may recall the concept of generative (regenerative) businesses, which was explored in [Section 1.5.6 \(/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/generativeregenerative-business-id-36546\)](#) and in the video by Kate Raworth in [Section 1.3.5 \(/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/strategies-and-tactics-id-36521\)](#).

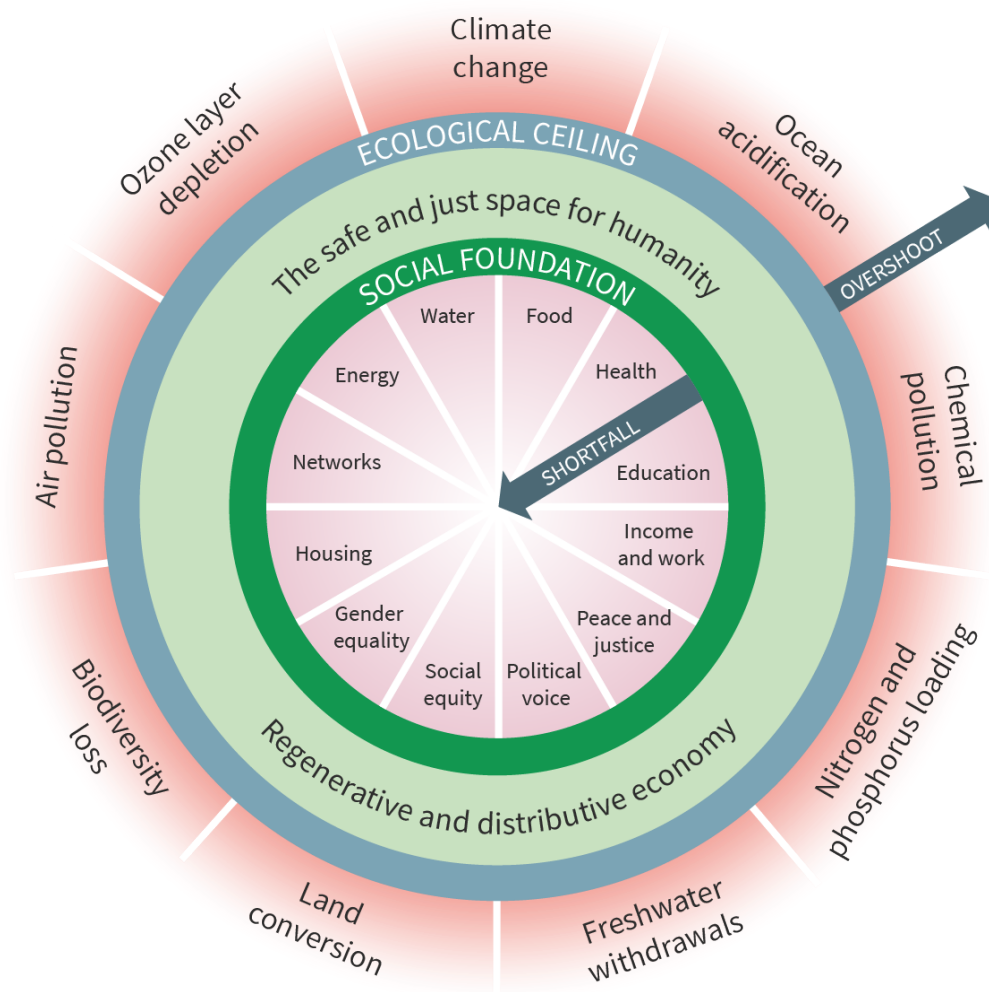
## Gaps in the market

An unmet need is a particular issue, desire, function or problem that has not been addressed by society. It could be that a solution has not been found. Or it could be that a solution is not yet affordable. There are many categories of unmet needs and unsolved problems. The UN Sustainable Development Goals (**Figure 1**) capture 17 categories of needs and problems that individuals, businesses and governments around the world are trying to address. The Doughnut Economics model (**Figure 2**) also frames human needs and planetary boundaries.



**Figure 1.** UN Sustainable Development Goals (SDGs).

Credit: yukipon, Getty Images



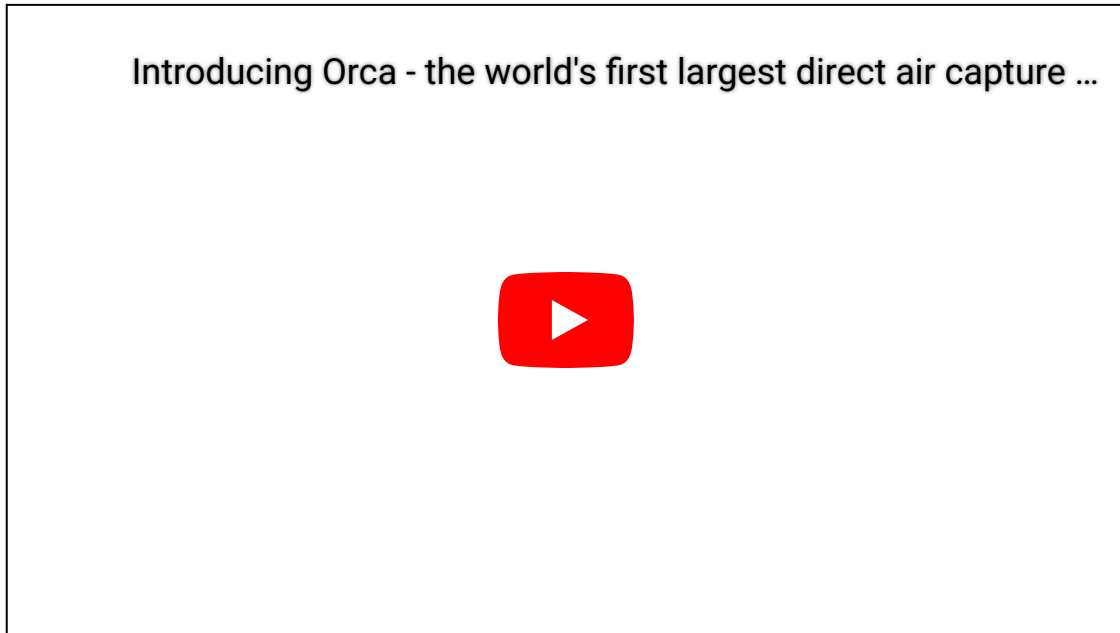
**Figure 2.** The Doughnut Economics model. (Click to enlarge image.)

Credit: [Kate Raworth](http://www.kateraworth.com/doughnut/) (<http://www.kateraworth.com/doughnut/>) and Christian Guthier.

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An unmet need that can be addressed by a business is known as a gap in the market. If a business can find and fill this gap, it may be able to earn a profit by selling a product or service for the unmet need to customers.

An example of a company working to fill a gap in the market is Climeworks (<https://climeworks.com>). Many climate scientists believe that achieving climate goals requires not only reducing CO<sub>2</sub> emissions, but also actively removing CO<sub>2</sub> from the atmosphere. Trees certainly serve this purpose! But there has been a gap in the market for technologies that could capture CO<sub>2</sub> at scale. Climeworks has researched and developed a carbon capture technology that can contribute to climate goals. Individuals and businesses pay Climeworks to offset their CO<sub>2</sub> emissions. **Video 1** explains how the technology developed by Climeworks functions.



**Video 1.** Climeworks is filling a gap in the market for carbon capture technologies.

Another example of a business that has spotted a gap in the market and filled it with its products is d.light (<https://www.dlight.com/>). Globally, more than 2 billion people do not have access to reliable electricity. d.light makes solar powered energy products that provide light and other energy needs to their customers. The company has served more than 100 million – mainly low-income – customers around the world with their products, which meet an essential human need and reduce reliance on polluting and dangerous kerosene lamps.



**Figure 3.** Low cost, reliable electricity is a human need that is being met by innovative businesses such as d.light.

Credit: Westend61, Getty Images

In [Section 4.1.3 \(/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/market-share-and-growth-id-37438\)](#), you learned about the difference between market orientation and product orientation. Both Climeworks and d.light are businesses that are market oriented. They have developed products in response to known human needs and global problems and are focused on their defined markets.

However, you may also remember that some companies are product oriented. These businesses are focused on product development often without a defined market to serve. Though some product-oriented businesses produce frivolous products that waste resources, there are other businesses whose risks and innovations have a huge positive impact on human wellbeing. For example, as you learned in the case study in [Section 4.1.3 \(/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/market-share-and-growth-id-37438\)](#), pharmaceutical companies developed mRNA technologies for years before their use was really understood. These technologies have been critical to COVID-19 vaccine development for a number of companies, including Moderna and Biontech.

## Concept

### Creativity, sustainability and ethics

As mentioned in [Section 4.1.3 \(/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/market-share-and-growth-id-37438\)](#), product orientation is often about imagining things that people do not yet know they need.

This requires enormous creativity from businesses, who do not necessarily have the feedback from customers to guide their direction. Truly creative innovators have the ability to disrupt markets and help solve the world's biggest problems.

However, it is important to remember that businesses have a responsibility to meet real human needs, not needs that are manufactured for the purposes of earning profits. There are significant sustainability and ethics concerns when businesses use the planet's limited resources to develop products that people do not really need. Even worse is when businesses use sophisticated marketing strategies to convince people that they do need them.

## Activity

**Learner profile:** Inquirer

**Approaches to learning:** Research skills (information literacy)

Identify two businesses in your city or region that are meeting a genuine human need or solving a real problem.

- Connect each business to one of the Sustainable Development Goals or to an element of the Doughnut Economics model.
- What risks and rewards do you think the two businesses face by meeting human needs in their communities?