Unit 202: Changing practices over time

# Case study 1

**Case study: The Senedd**

This case study centres around The Senedd, the iconic home of the National Assembly for Wales located in Cardiff Bay and its emphasis on sustainability in construction. The Senedd is a renowned architectural masterpiece designed by the architect Richard Rogers and constructed between 2001 and 2006. It serves as the home of the National Assembly for Wales and symbolises Welsh democracy and sustainability. The building features a distinct design that incorporates sustainability principles to reduce its environmental impact and promote responsible construction practices.

**Passive design strategies**: The Senedd utilises passive design strategies to optimise energy efficiency and to reduce reliance on mechanical systems.

**Energy efficiency**: The Senedd utilises an efficient heating, ventilation and air conditioning (HVAC) system and features an energy management system to monitor and control energy usage.

**Renewable energy generation:** The Senedd showcases a commitment to renewable energy generation.

**Water management**: The project implements various water management strategies to minimise water consumption and promote sustainable water practices. The Senedd is a building that prioritises the use of sustainable and locally sourced materials, such as sustainable timber, recycled materials and low VOC paints and finishes.

It also integrates principles of biodiversity and ecological conservation into its design, such as native plant species, green roofs and vegetated areas. Additionally, the building actively engages with the public, promoting sustainability and raising awareness of environmental issues. It hosts educational programmes, guided tours and exhibitions that highlight sustainable construction practices, renewable energy and environmental stewardship.

The Senedd is an iconic example of sustainable construction, demonstrating the feasibility and benefits of incorporating sustainability into architectural design and construction practices. It serves as a source of inspiration for future construction projects, emphasising the importance of responsible construction practices and their impact on the environment. It highlights the importance of considering environmental factors, energy efficiency and renewable technologies in construction design.