Your Future **me** Design Thinking Problem Brief

Department:
Department of Strategy, Enterprise and Sustainability (SES) & Accounting, Finance and Banking (AFB)

Opening question:

How can technology help to address the issues of climate change?

Context:
In 2020, concentrations of global greenhouse gases reached new highs, and real-time data point to continued increases. As these concentrations rise, so does the Earth's temperature. Tackling climate change is an essential component of the global sustainability agenda. We need to change the way we think about climate change to reduce greenhouse gas emissions and meet the targets set out in the Paris Agreement. Energy efficiency and switching to renewable energy is only half of the story. To reach net-zero, we also need to change the way we make and use products, materials, and food. Significant changes are needed at societal and industrial levels, thus governments and corporations are increasingly turning to technological innovations to meet net-zero emission targets. The World Economic Forum report identified the significant role that digital technology can play in improving resilience to global warming related natural hazards, reducing emissions and enhancing the ability for humans to take the necessary steps to realise net-zero.

Starting points/ prompts:
- By 2050, almost half of the emission reductions required to reach global net-zero may need to come from technologies that are currently at the demonstration or prototype stage, according to the International Energy Agency. What can be done to accelerate the development and uptake?
- How can digital technologies help to automate and significantly improve the efficiency of industrial, manufacturing, and agricultural processes?
- What role will artificial intelligence-based systems play in reduction of global emissions?
- How can fintech sector contribute to reducing emissions, achieving net-zero agendas, and enabling climate action?
- What is the role of climate fintech companies in facilitating climate action?
- How are disruptive technologies enabling transition towards circular economy to tackle climate change?
- Is new technology the only solution to combat climate change? What other enablers at macro, meso and micro level are needed for climate action?