Timothy Leighton is Professor of Ultrasonics and Underwater Acoustics at the Institute of Sound and Vibration Research at the University of Southampton. He undertakes fundamental research in acoustics, and then takes them through to products, including numerous inventions for healthcare, ocean exploration, catastrophe relief, and industry. As regards sound in the sea, these include methods to use sound to study the transfer of gas between atmosphere and ocean, a key component of the carbon budget and a vital factor in predicting climate change; theories on how whales might form 'nets' of sound to capture fish, and how dolphins might use advance mathematics to hunt with their sonar; and theories on how we might explore the oceans of other planets using sound. He was trained as a theoretical physicist, and finds it particularly fun to produce, from this research, outputs in the real world, which include new sonar and radar systems, sensors to detect leaks from carbon capture and storage reservoirs, devices used to monitor the effectiveness of shock wave kidney stone treatment, input to guidelines for safe exposures when ultrasound is used to form ultrasonic images of foetuses, and ultrasonic devices used to clean surgical tools between operations.