The Future Human Signature Research Theme

Future Human is one of Kent's three Signature Research Themes (SRTs) and are a key part of the University's strategy to further develop its global research profile. Their aim is to enhance cross-disciplinary research activity and environment, establish new research communities, build an international profile, and attract significant external funding. More information on the theme can be found on our website (https://research.kent.ac.uk/signature-research-themes/future-human/) and Blog (https://blogs.kent.ac.uk/futurehuman/).

Future Human is about research and innovation that concerns human augmentation. Human augmentation is the application of tools, techniques, and technologies to improve or restore human performance or function either temporarily or permanently. We also look to understand the wide-ranging consequences this may have in the world in which we live. This is important because the synergies between disciplines like physiology, psychology, engineering, and computing only reflect part of a complex process which defines whether these interventions are adopted. Take the example of a wearable device that tracks various biometrics which facilitate targeted interventions to improve the wearer's cognitive function - consider how these devices might be built and interface with the user, the legal implications in implementing them in the workplace, or who has access to the data. The answer to these questions may need expertise that draw from engineering, computing, psychology, biosciences, law, business, and sociology. Through Future Human we aim to bring together experts from all different fields and stakeholder groups to provide a more holistic approach to human augmentation. **As a technology/product for development or an existing intervention that could be implemented, human augmentation is relevant to and in business, industry and health**.

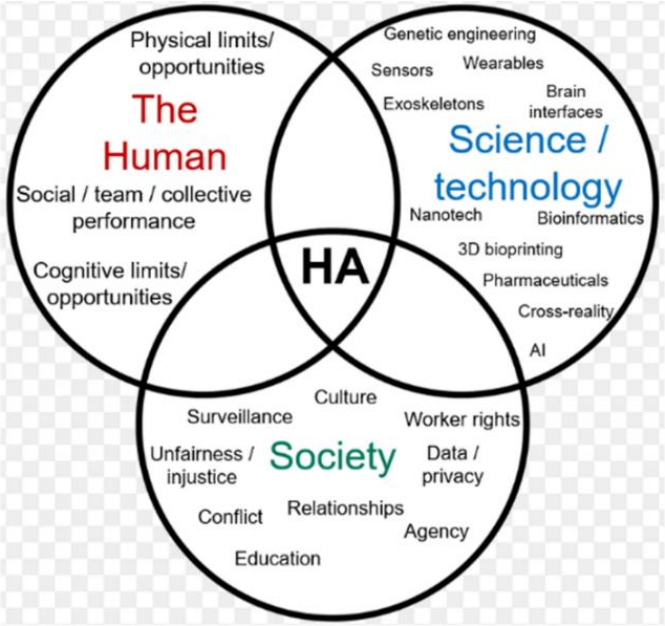


Figure 1. The overlapping areas of The Human, The Science/Technology, and Society that form the basis for understanding Human Augmentation. The disciplines/themes/fields within these areas and the intersections where areas meet form the basis of the huge potential for an interdisciplinary approach.

The diagram on the next page indicates some of the provocative questions/challenges about how human augmentation might be important in health, everyday life, the workplace, and in elite/occupational performance. It is a multidisciplinary field, and it's not just about what we can do and how we might do it, but also the wider implications this might have in across society.

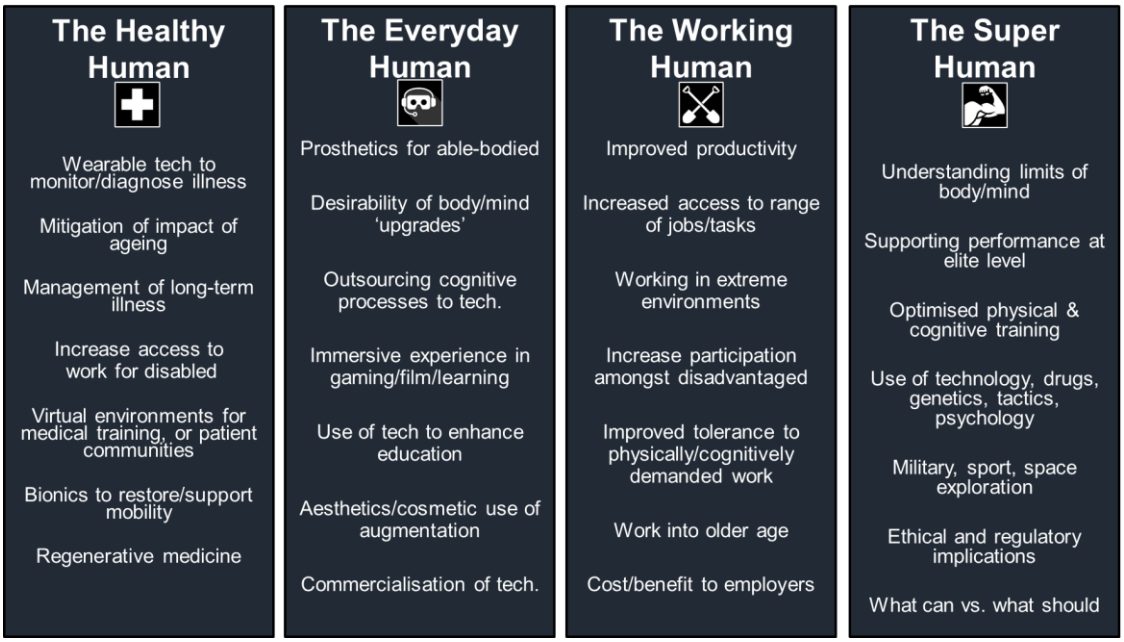
The Future Human Industry Sandpits

Sandpits are essentially extended workshops that bring together researchers, practitioners, end-users and industry from different institutions and disciplines to discuss a specific topic or problem and to co-design solutions to those questions/problems.

The process of the Sandpit will build trust between those in the room and will **support the forming of cross-disciplinary academia-business teams that have identified a research/innovation/industry challenge and a pathway to address it**. At the end of the Sandpit, we will invite those teams to share their ideas, and a **funding pot of up to £15,000** will be made available to support a selection of those teams to start work on solving the challenge they put forward. Future Human will continue to support all the teams beyond the sandpit event, to facilitate further networks and apply for external funding (e.g. Innovate UK, NIHR, UKRI, KTPs).

Through the Future Human sandpits, we want to bring together a total of 20-35 participants from academicia (from the University of Kent) and industry, health and social care and Third Sector who are involved with or have an interest in human augmentation (i.e. human enhancement or restoration of function). For example, **this might be an academic or business working in science/technology that relates to human augmentation** (e.g. AI, robotics, human nutrition, pharmacology, smart material etc.) and are looking to further develop their research/product. Or it might be **an organisation that would benefit from testing or integrating some form of human augmentation in their business** (e.g. novel training methods, technologies that augment workers, human-machine teaming) and would benefit from collaborators that could optimise this approach, the impact on employees, or conduct a feasibility analysis on the implementation.

The Sandpit will run on 1st and 2nd March 2023. Please see accompanying information (Sandpit Advert, Flyer) on how to apply, and scan the QR code below to access the website and the **digital application form**. For informal enquiries please contact the Future Human team (Dr Sarah Hotham and Dr Lex Mauger) on futurehuman@kent.ac.uk .



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Link to Sandpit website and digital application form