



5G Innovation Challenge

Challenge Brief

If you require further information or guidance, please contact:
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Our challenges are in three broad areas

Challenge Area 1 : Access to Health and Social Care

This challenge will look at overcoming issues around the limitation of accessing vital services and technology and making health and social care accessible to all. The challenge would encourage individuals to use technology rather than relying on human resources while still remaining mindful of the social isolation implications of technology.

Challenge Area 2: Digital at Home to enable Home Monitoring and Self-Management

We are interested in companies that can propose a 5G enabled solution to address issues around:

- Enabling self-management of chronic conditions at home.
- Using digital tools to enable people and partners to deliver care more efficiently.
- Independent living and enhances quality of life.
- Support for informal care givers.
- Enhanced home environmental monitoring.
- The replacement of analogue to digital in connectivity.
- Digital being a choice.

Challenge Area 3: Sharing Information and Transparency

The challenge will look at 5G as an enabler to connect all solutions used by a service provider. With a focus on enabling the sharing of information while ensuring the safety of software in an interfaced, network-enabled clinical environment.

We are keen to receive applications from companies that can address issues around:

- Implementing a method for unambiguous patient identification.
- Developing and implementing decision support which improves safety.
- Identifying practices to safely manage information technology system transitions.
- Developing real-time methods to enable automated surveillance and monitoring of system performance and safety.
- Establishing the cultural and legal framework/safe harbour to allow sharing information about hazards and adverse events.
- Developing models and methods for consumers/patients to improve health information technology safety.

What might projects look like?

The guidance provided below is for illustrative purposes only and should be viewed as non-exhaustive. In general, we have no preconceived ideas of what innovation looks like. We exist to support the successful development & deployment of your products and/or services.

A 5G product or service might;

- Support the uptake of digital health tools to the general public by utilising data and communication channels to promote the benefits of digital health tools.
- Support the review how the personal budgets programme could better support the uptake of personal digital technology.
- Provide health and social care professionals in the community with 5G technology, particularly in rural areas with limited health and social care provision, where consumer options for getting online are also limited.
- Provide solutions which allow users to view and interact with data from assistive living devices installed in people's homes.
- Support technology enabled care services and experience of digital transformation to deliver operational improvements, new revenue streams.
- Incorporate smart packaging technology, allowing for increased connectivity.
- Provide practical, affordable digital solutions, which are replacing the analogue telehealth technologies which will be turned off in by 2027.
- Providing a secure, fast, reliable connection to a support network or expert advice, which might be miles away e.g. through connected devices or tools.
- Help tackle loneliness and social isolation, through virtual collaborations, virtual social interactions, gaming or integration.

- Provide solutions that enable home care centres to provide immersive interactions between patients and their families when physical interaction is not possible.
- Improvements to the delivery of social care to patients at home improving security, safety and creating new types of jobs and revenue streams.
- Create solutions that improve utilisation of human resources focusing on where they are needed the most while using technology to deliver care.
- Be a smart or connected device or product which monitors usage / act as reminders.
- Facilitate 24/7 monitoring of people in their own homes or care environment, through sensors and/or wearables.
- Be an applications that interacts with connected devices and enable near real-time monitoring of device status, sensor information and user actions.
- Be a development of standard interfaces to enable efficient integration of multiple systems, including such examples as Alexa, Google Home, etc.
- Help facilitate machine learning, whilst allowing more devices to be connected together; allowing for data analysis and effective interventions.
- Help review of 'environmental' conditions or external factors which plays a part in care and well-being.
- Utilise Smart Home Technologies as a communication tool.
- Help applications that enable remote monitoring and management of home care devices including wearables.
- Remind users about their medication intakes and health related activities.
- Provide interactive applications that helps users to follow certain actions without human intervention.
- Be augmented and interactive support delivered remotely to assist patients at home.
- Incorporate smart packaging technology, potentially allowing health and/or social care providers to track patient adherence.
- Provide health care and social care workers with a suite of connected monitoring solutions, replacing analogue, and offers swift interventions.
- Allow for data sharing between multiple clinicians / departments.

- Implement a wearable solution which allows for secure data transmission to allow for patient identification, reporting and management.
- Develop and implement a decision support which improves safety.
- Provide a system establishing the cultural and legal framework/safe harbour to allow sharing information about hazards and adverse events.
- Develop models and methods for consumers/patients to improve health information technology safety.
- Develop a way to anonymise data to enable collaborative data sharing and interworking between different organisations without compromising user identities.

To apply, please use the Expression of Interest form. Consult the FAQ document for more information.

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