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Document Details: Clarification Q&A in response to the call for proposals

Challenge: **Imaging Hidden Objects in Walls**

Deadline for questions: **21 August 2026**

	Question	Answer
1.	Are foil-backed plasterboard and metal-framed partition walls in scope for the essential requirement, or is single/double board on timber studs the reference "standard plasterboard wall"?	Please use single / double board on timber as standard plasterboard wall.
2.	Is a scan time of a few minutes per wall panel acceptable for the use case, or is near-instant imaging weighted higher than image quality?	Few minutes per wall panel is acceptable. Image quality is more important than speed for the proposals.
3.	For "transported on a commercial flight", is checked hold luggage acceptable, or is carry-on luggage size the ambition?	Check hold luggage is acceptable for this proposal, with the possible of future development to reduce the size in the future.
4.	Any constraints on transmit frequency/EIRP for the demonstrator (e.g. preference for licence-exempt 60 GHz / UWB bands vs 77 GHz radar bands)?	Preference to use licence-exempt bands.
5.	Will the target set at assessment include realistic surveillance-device surrogates (powered and	Yes, the target set at assessment will be a selection of devices. With some larger easier to find, ranging to more advance unpowered devices.

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	unpowered), and can applicants know representative device sizes?	
6.	Is the funding fully available for the applicant or only 80% is available?	The selected applicant will be eligible for up to the limit of £60k ex. VAT.
7.	Is there a minimum TRL level on entry? Also, what if the deliverable after 12 weeks exceeds TRL 5?	The minimum result TRL is 5, anything else is a bonus.
8.	Six pages and six slides are largely different in length/depth. Could you please elaborate?	Six pages or slides is the guide to keep the proposals focussed. Please be concise but do cover the requested criteria. The proposal should be clear and readable.
9.	Are PhD Researchers eligible for this challenge?	We welcome proposals from anyone that meets the Challenge technical and eligibility criteria, noting in the case of a PhD Researcher making clear whether the response would be made in an individual capacity or via the institution hosting their PhD.
10.	You mention a desirable feature is not to have access on the other side of the wall how critical is that?	It is likely that in a lot of the situations where this would be deployed that access to the other side of the wall is not possible. Therefore, it is highly desirable to not require access to the other side of the wall.
11.	How is "image" defined?	Any form of indication that there is an anomaly detected. This is purposely flexible to encourage innovation.

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12.	The submission can contain pictures and links?	Pictures can be provided within the six-page proposal limit. Links should be avoided as the application should be complete within the six-page limit.
13.	Can it be assumed that the devices we're trying to detect are off (not transmitting)?	It will be a mix, of both transmitting and non-transmitting devices across a selection of frequencies.
14.	The desirable requirements state "penetrating tens of centimetres through a standard plasterboard or wooden wall". That seems very thick for a wall. Can you clarify what you mean?	The system should be able to penetrate though standard plasterboard with timber frame partition walling. The real-world target walling can vary, ideally the system will be able to work on a wide selection of walling.
15.	What are the typical and minimum size of hidden objects you're looking to identify, please?	This depends; we are focusing on what the technologies is capable of rather than constraining ourselves to specific sizes.
16.	If access to the other side of the wall is not desired could an emitter be placed in the local area, i.e. in a corridor further down the building?	Yes
17.	What spatial resolution is required for the "image"? What is the representative target size and does it need to be more than one pixel?	There is no set requirement for the resolution of an image. This project is about exploring what is possible.

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		There is no set target size and the prototype will be tested against a selection of devices.
18.	If the solution required that there be a brick wall on the other side i.e. plasterboard - air gap - then brick wall, would that be of use?	The solution should be able to work against a wide selection of walling types. Ideally there should not be a requirement to have brick on the other side.
19.	Lower frequencies enable better penetration but reduced resolution. Is there a lower limit that can be proposed or is mm-wave/THz the expected frequency?	There is no lower limit, this challenge is focused on developing a prototype that can detect hidden objects.
20.	Are you planning to fund just one?	We have the option of funding more than one supplier.
21.	Is it necessary to discriminate objects behind a wall or is the mere presence of an "anomaly" sufficient?	If the system is able discriminate between different objects that would be beneficial.
22.	Discriminate between metal and non-metal be useful?	Yes
23.	This challenge specifies "imaging" in the title and in the scope but what exactly does this mean in this context? Would a point sensor that could produce a grid of localised measurements be considered an imager? Similarly, would a 1D array that is swept over	There is no set definition of imaging, just for the system ability to detect, and inform an end user about what has been detected.

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	a surface to construct an image be within scope? Or does the sensor have to output a 2D image in a single measurement? In any case, what spatial resolution and extent would be required to count as an image?	A point sensor that can produce a grid of localised measurements would be acceptable. A 1D array that is swept over a surface to construct an image would also be acceptable. The system is not required to output a 2D image in a single measurement. There is no set requirement for spatial resolution. This challenge is seeing what technologies can produce.
24.	The weight requirement of 20 kg suggests the sensor is static and performs a stand-off measurement of the wall. Would a lighter handheld sensor that is swept over a wall be acceptable, or is that too effort intensive to use?	A lighter handheld unit is the ideal outcome. The 20kg limit was in recognition that the system would be a prototype and as such not as portable.
25.	For systems operating in the RF spectrum, is there a preference for the expected frequency range? The challenge document mentions terahertz and millimetre-wave technologies as potentially having insufficient penetration depth while also not necessarily having sufficiently high image quality. However, higher frequencies have even lower penetration, while lower frequencies have poorer spatial resolution. Is the proposal still expected to be within the terahertz or millimetre-wave frequency range?	There is no set requirement on the frequency range. This is purposely flexible to encourage innovation.

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26.	The challenge document mentions a desirable requirement of producing “images from penetrating tens of centimetres through a standard plasterboard or wooden walls.” Tens of centimetres seems very thick for a plasterboard or wooden wall. Do you mean tens of centimetres of wall material or do you instead mean that you need to detect an object that is placed tens of centimetres away from a wall on the other side? Can you clarify this?	The tens of centimetres refers to the depth of the combined wall material rather than just plaster board. The devices might be installed at different depths throughout. An ideal prototype is able to detect devices in a variety of walling and depths.
27.	After a successful project and TRL 5 (or greater) deliverable - is there any follow through to develop a product?	There is the possibility of further phases and development. This is depending on the success of the first phase.
28.	In reading your use case and requirement spec, it would appear that high-resolution magnetic anomaly imaging would offer a powerful detection tool. Even the most compact power sources (button cells, capacitors) have a magnetic field easily detectable through 5 cm of concrete. However, the call focus appears to be THz and mm-wave systems. Are novel hi-res magnetic systems in scope?	This call focuses on THz, mm-wave and radio frequencies techniques rather than magnetic systems.
29.	Given the tight 12-week Agile delivery time-frame, early procurement of specialised COTS hardware (e.g. mm-Wave evaluation modules, edge-compute units, radiometric thermal cores) is critical during Sprint 1. Will the contracting framework managed by Cranfield University permit an initial mobilisation	In cases where there is a justified requirement to procure hardware in advance to enable delivery of the Services within the 12-week timeframe, the Authority may, at its discretion, authorise payment through a Sprint 0 activity. This approach can help accommodate hardware lead times and supplier cash flow requirements ahead of the

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	payment upon contract execution, or allow for heavily front-loaded early milestone invoicing (e.g. Week 2) to mitigate cash-flow constraints for innovators when procuring high-value hardware?	commencement of Sprint 1 and MVP development activities. Any such approval will be considered on an exceptional basis and must be supported by a clear justification. All payments made under HMGCC Co-Creation will remain subject to the payment terms set out in the Co-Creation Terms and Conditions. Specific detail around request for early procurement and exceptional sign-off by the Authority can be discussed with the successful supplier at contract award.
30.	For the final TRL 5 live demonstrator handover, will HMGCC provide a standardised, blinded test partition containing unknown concealed targets at the Authority's facility, or should solution providers design and budget for transportable modular wall rigs to demonstrate capability during the final review?	The authority's testing will be conducted at the authority's site without the supplier in attendance. The supplier is welcome to design and build transportable modular wall rigs for demonstration.
31.	Regarding the baseline plasterboard and timber wall inspection requirement, does the Authority consider cavities with foil-backed PIR insulation (specular RF reflectors) or steel dry-lining framing studs within the essential baseline scope, or are these classified under desirable/stretch operational scenarios?	These would be a desirable requirement rather than essential.
32.	Should a 12-week Phase 1 demonstrator successfully achieve all TRL 5 milestone criteria within the £60,000 budget envelope, what is the anticipated scale,	If a follow-on Phase 2 project was sought by the Sponsors all aspects of the contract would be defined at the appropriate time.

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	commercial structure, and development timeline for follow-on Phase 2 Co-Creation prototyping leading toward productisation?	
33.	Having registered at the portal and looking at the submission requirements, I note that you request a registration number for the Organisation. In the case of an Australian University, can this be a DUNS number or does this need to be a UK registered entity?	Presently, the registration number is set up for UK entities. However, we do accept applications from outside the UK. We are looking into this issue and intend to amend our website in the future. In the meantime, you can insert any six-digit number as a 'registration number'.