

Innovation Hub
**Regulatory Sandbox
Guidance**
For the Future Flight Challenge
CAP 2130

REGULATORY SANDBOX

1. Purpose of the Document

This guidance explains to Consortia how the CAA Sandbox services can help them to achieve the objectives of their Future Flight Challenge project.

The document covers:

- *Why Consortia should use the Sandbox services*: The Sandbox helps consortia to maximise the regulatory readiness of their innovation and increase the prospects of 1) Complying with future regulations, and 2) Obtaining the exemptions required to demonstrate their products and services in live environments, within the timescales for Phases 2 and 3 of the Future Flight Challenge.
- *The Sandbox framework*: This guidance describes the Sandbox process step by step, the milestones reflecting key achievements as consortia and the CAA progress through the Sandbox process, and the roles of the CAA and Consortia at each stage of the process.
- *How to access Regulatory Sandbox services through the slot system*.

2. Abbreviations

CAA – Civil Aviation Authority

ConOps – Concept of operations

FFC – Future Flight Challenge

MoU – Memorandum of understanding

NDA – Non-Disclosure Agreement

PoC – Point of Contact

SME – Subject Matter Expert

UKRI – United Kingdom Research and Innovation

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4. Why the Regulatory Sandbox?

Existing regulations are not always fit for the purpose of the novel products and services developed by the consortia participating in the FFC. The CAA must look to change regulations or develop new ones, but the content and scope of future regulations remains unknown. As a result, obtaining exemptions from the CAA for the demonstrations of innovative products and services in live environments remains complicated, and sometimes unsuccessful. Also, new products and services are being developed without any guarantee that they will comply with future regulations. The CAA Regulatory Sandbox (The Sandbox) services address these challenges.

The Sandbox helps consortia to maximise the regulatory readiness of their innovation and increase the prospects of:

- Complying with future regulations, and
- Obtaining the exemptions required to demonstrate their products and services in live environments, within the timescales for Phases 2 and 3 of the FFC.

The Sandbox helps to maximise regulatory readiness by ensuring development activities address the key risks and unknowns that innovation brings in terms of safety, security and consumer protection.

5. The Sandbox Approach

At the Engagement stage, the CAA and the consortia develop a common understanding of the innovation, the regulations that apply to it, and where there are gaps in regulations. Where there are gaps in regulations, the CAA clarifies the unknowns and risks that innovation brings with regards to safety, security and consumer protection. At the Planning stage, the consortia propose design mitigations for the unknowns and risks. These are then explored through tests and simulations in safe environments (Testing stage) to encourage learnings (Learning Stage). Short iterative cycles of 'Planning, Testing and Learning' are favoured to eliminate unknowns and risks, and rapidly converge towards clarity and focus on how innovation addresses the fundamentals of safety, security and consumer protection.

