

# Drones in SESAR

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*SESAR Joint Undertaking*



# A priority for Europe



- *Strong policy push to ensure safe integration of drones with clear sense of urgency*
- *2019 is first milestone to establish EU drone services market*
- *Urban air transport central to this vision*

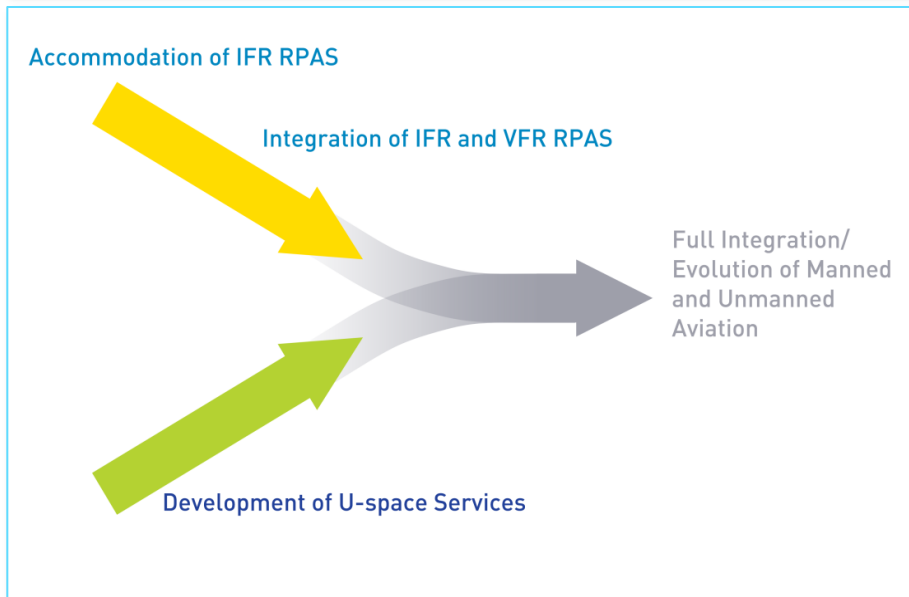


Rulemaking  
Certification



# Vision defines what needs to be done and by when for the safe integration of all types of drone operations

## From accommodation of drone traffic to integration



## 2 key enablers

- Gradual increase in the level of **connectivity** and **automation**

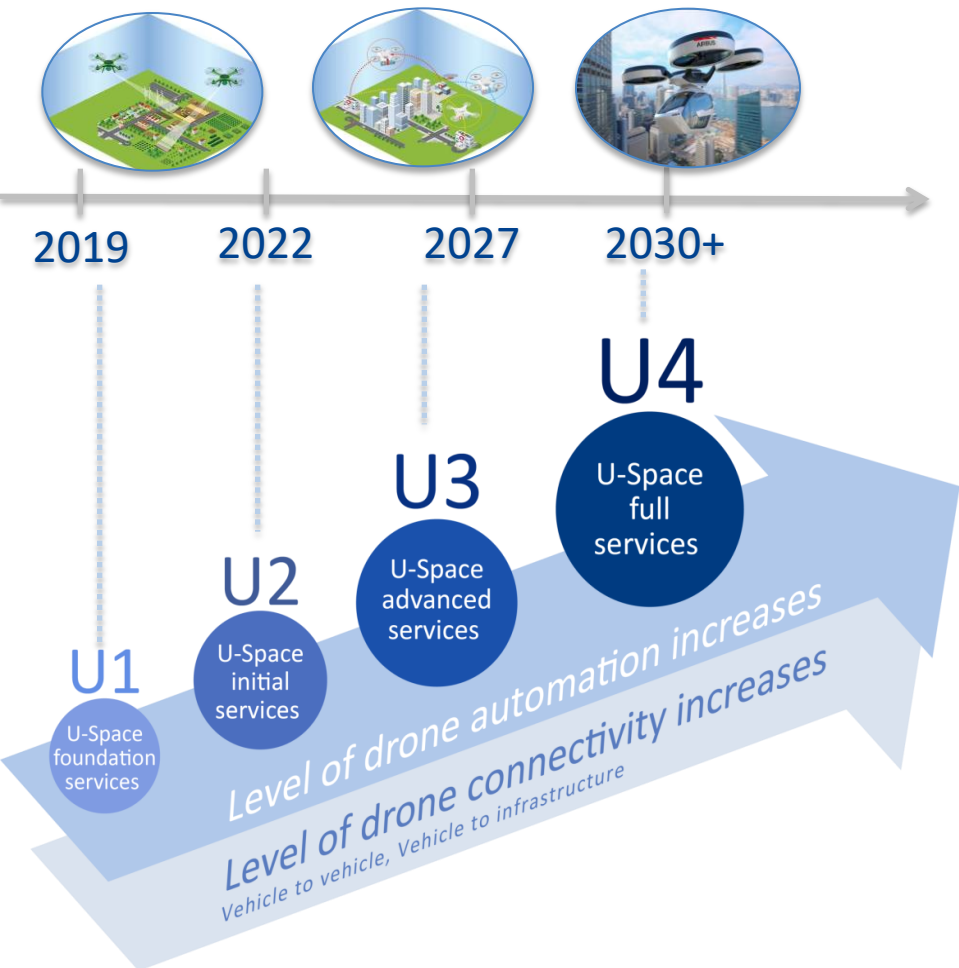
## Central to the vision

- **Urgency to act** (shorter innovation cycles applied)
- **U-space** (what it is, and what it is not)
- **Urban air mobility** potential integrated (main change compared with Drones Outlook Study)
- Securing key European programmes for RPAS (such as **MALE**)

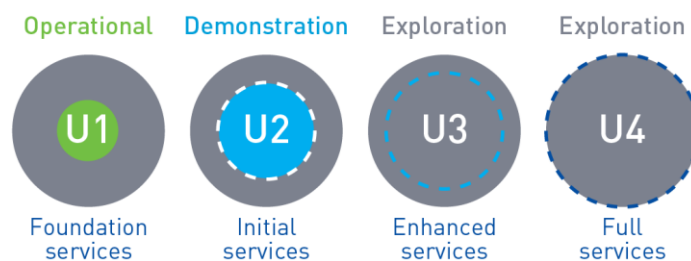
## UTM programme in Europe is called “U-space”



- New set of **digital and automated** data services
- **Safety**: dynamic geofencing, management of emergencies & contingencies
- **Interface** with conventional aviation
- **Highly automated** vehicles equipped with D&A and using V2X communication
- Drones like any other **IoT** device: leveraging mobile and satellite communication networks
- **Security**: registration, authentication, Secure Drone2X communication



## U-space in 2019



### U-space roll-out by 2019



**EASA  
Opinion  
to EC**

**Outcomes of  
demonstration  
activities**

**U1**

### Foundation

- e-registration
- e-identification
- geofencing

**U2**

### Initial

- planning & approval
- tracking
- airspace dynamic information
- procedural interface with ATC

**U3**

### Enhanced

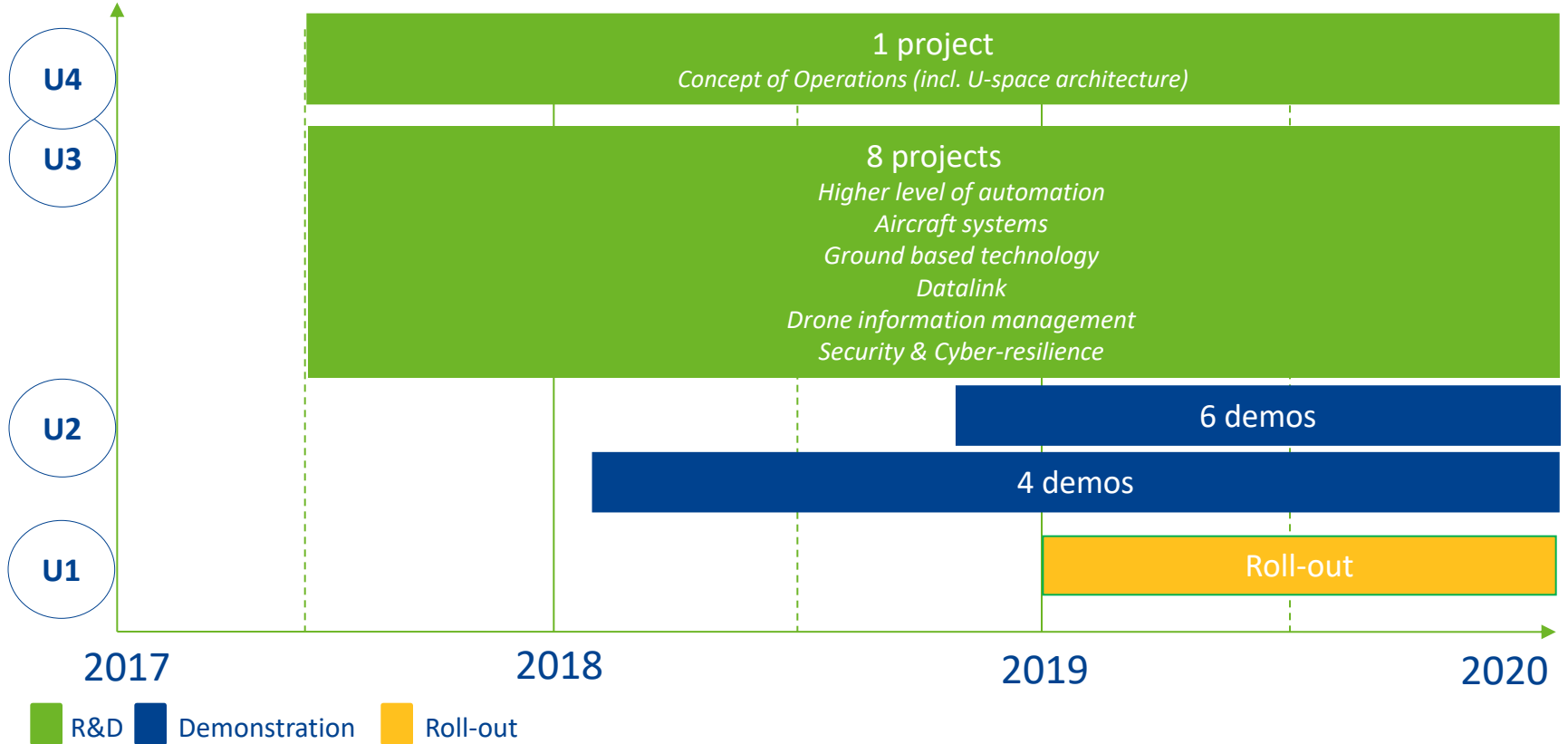
- capacity management
- assistance for conflict detection

**U4**

### Full

- integrated interfaces with manned aviation
- additional new services

# U-space



**U1**

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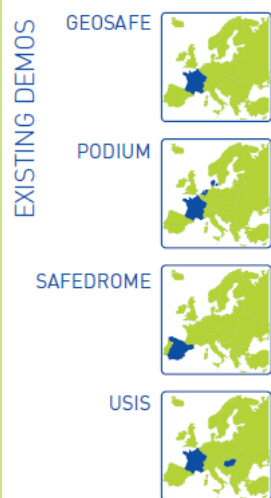
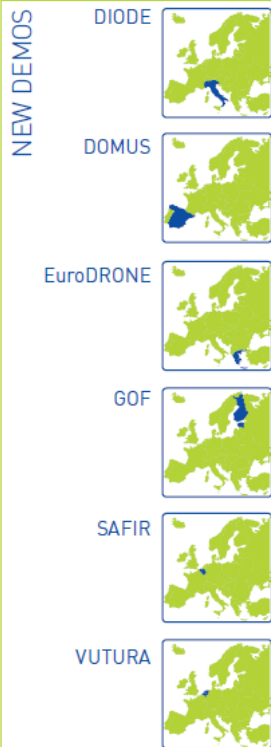
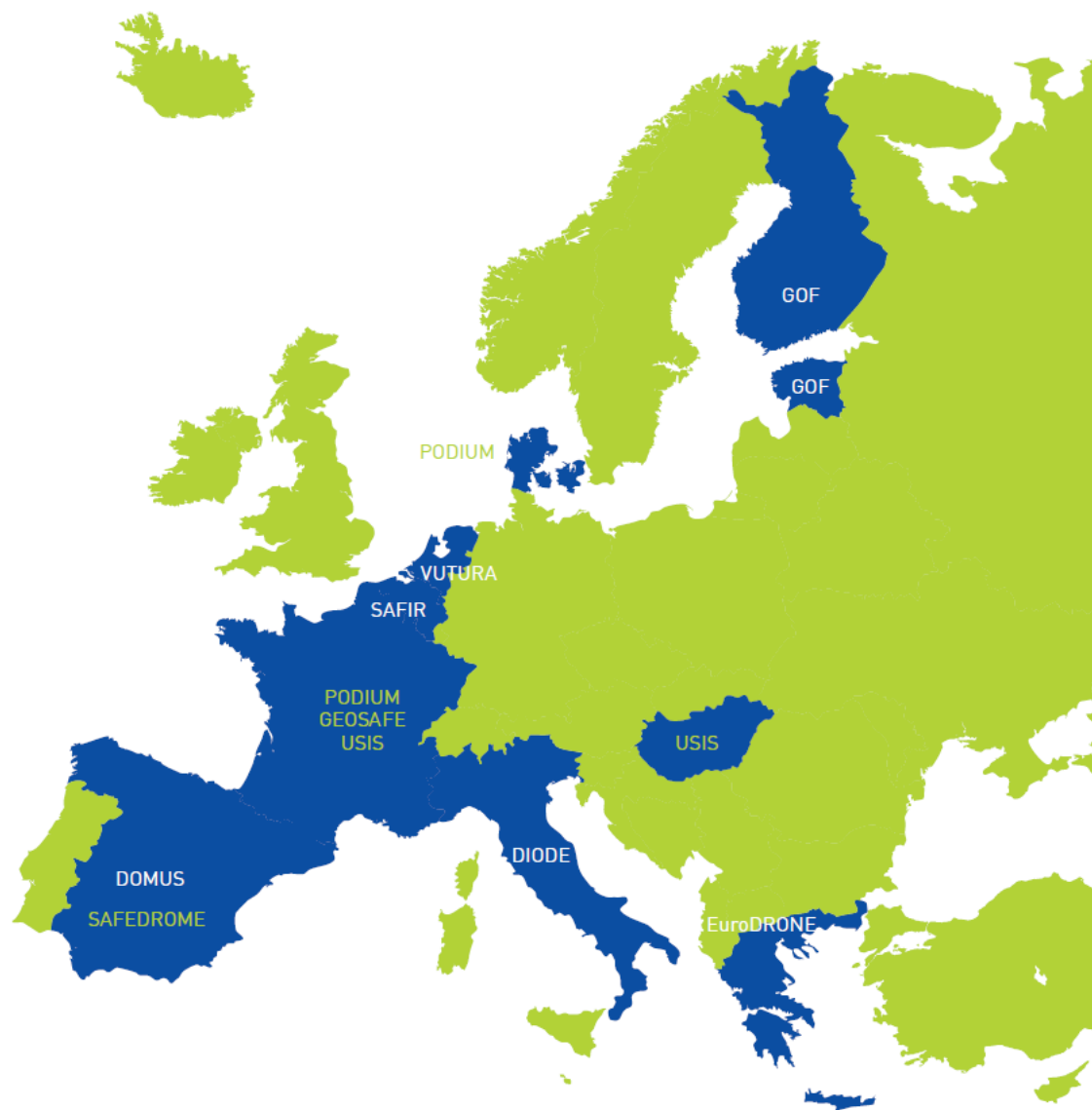
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**U4**

## Full

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# U-space demo coverage



# U-space

# S

# E

# F

# U

# L

**As a SESAR project team member,  
what does the U of U-space mean for me?**



# U-space S E F U L

**SESAR results are useful for whom?**

- **The SESAR programme**
- **The drone community**
- **Projects external to SESAR**
- **Standardisation & regulation**
- **Future industrialisation/deployment**

