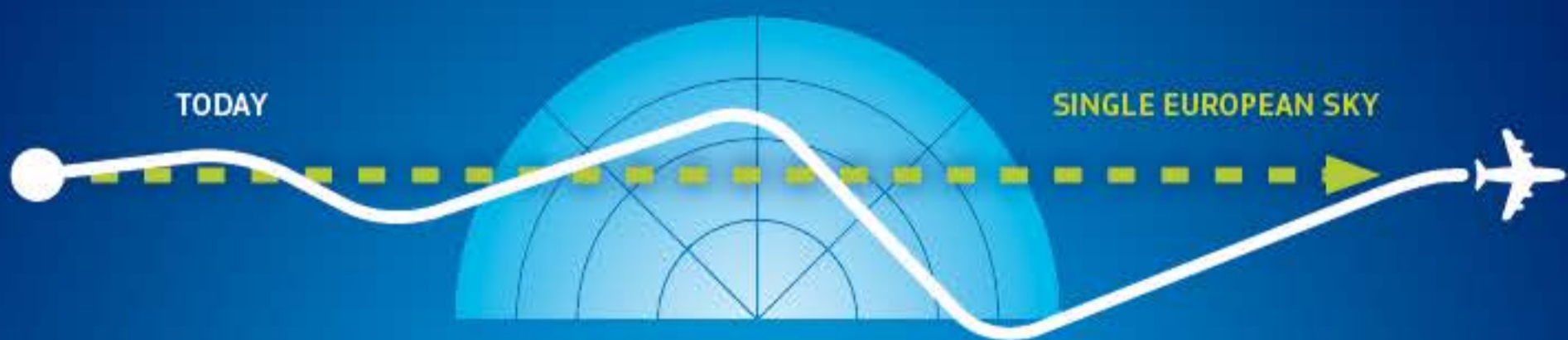




INNOVATION AND DIGITAL TECHNOLOGIES

SESAR and the Air Traffic Management modernisation

Developing new technologies for a better management of Europe's airspace and contributing to the Single European Sky goals.



MANAGING MORE EFFECTIVELY INCREASING TRAFFIC CONTRIBUTING TO

↑ Capacity

↓ Costs

↓ CO₂

High level of safety

SESAR JOINT UNDERTAKING



INVESTMENTS

from the Connecting Europe Facility (CEF) for SESAR projects

2014 - 2035

€ 2.5 bn ⇒



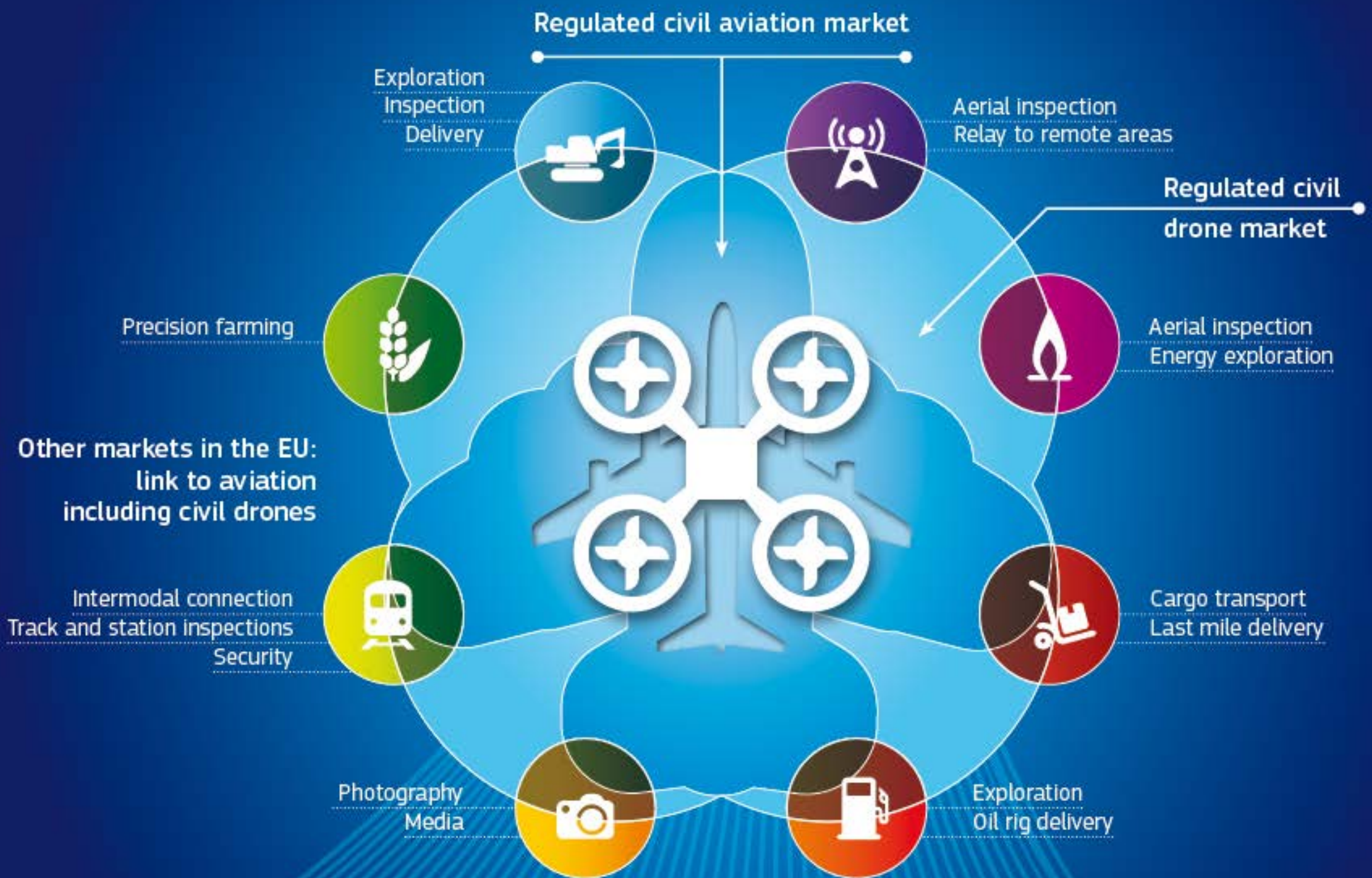
of EU contribution to SESAR Deployment

App. €30 bn overall investment expected to create growth & 300,000 jobs



INNOVATION AND DIGITAL TECHNOLOGIES

Unleashing the potential of the drone market in the EU





INNOVATION AND DIGITAL TECHNOLOGIES

Potential of the drone market in the EU



DRONE MANUFACTURERS

CORE BUSINESS



Drone manufacturers

POTENTIAL by 2020:
€200 million to several billion

DRONE SERVICE PROVIDERS

DIRECT IMPACT



WIDER EU MARKET

INDIRECT IMPACT



Exploration



Precision farming



Security



Media



Aerial inspection



Energy exploration



Just in time delivery



Oil rig delivery



INNOVATION AND DIGITAL TECHNOLOGIES

Setting up rules for safe drone operations in the EU



Open operations
LOW RISK



DRONES

- Flying own drone / Photography and filming / industrial operations...
- Example: a farmer using drones over his own property



Product Safety rules
Enforcement by police

Specific operations
RISK DEPENDING ON TYPE OF OPERATIONS



AVIATION

- Private piloting and aerial work by small aircraft and helicopters



DRONES

- Mailing / Infrastructure inspections / commercial or industrial operations...
- Example: filming of sport events
- Rules adapted to the level and nature of risk



Aviation specific rules
Enforcement of rules
by aviation authorities

Certificated operations
TRADITIONAL RISK



AVIATION

- Passenger and cargo transportation



DRONES

- Remote pilote license
- Certification of drones
- Operation manual



Aviation specific rules
Enforcement of rules
by aviation authorities



INNOVATION AND DIGITAL TECHNOLOGIES

Drone operations now and in the future?

