



DRONIQ FOR FLIGHT

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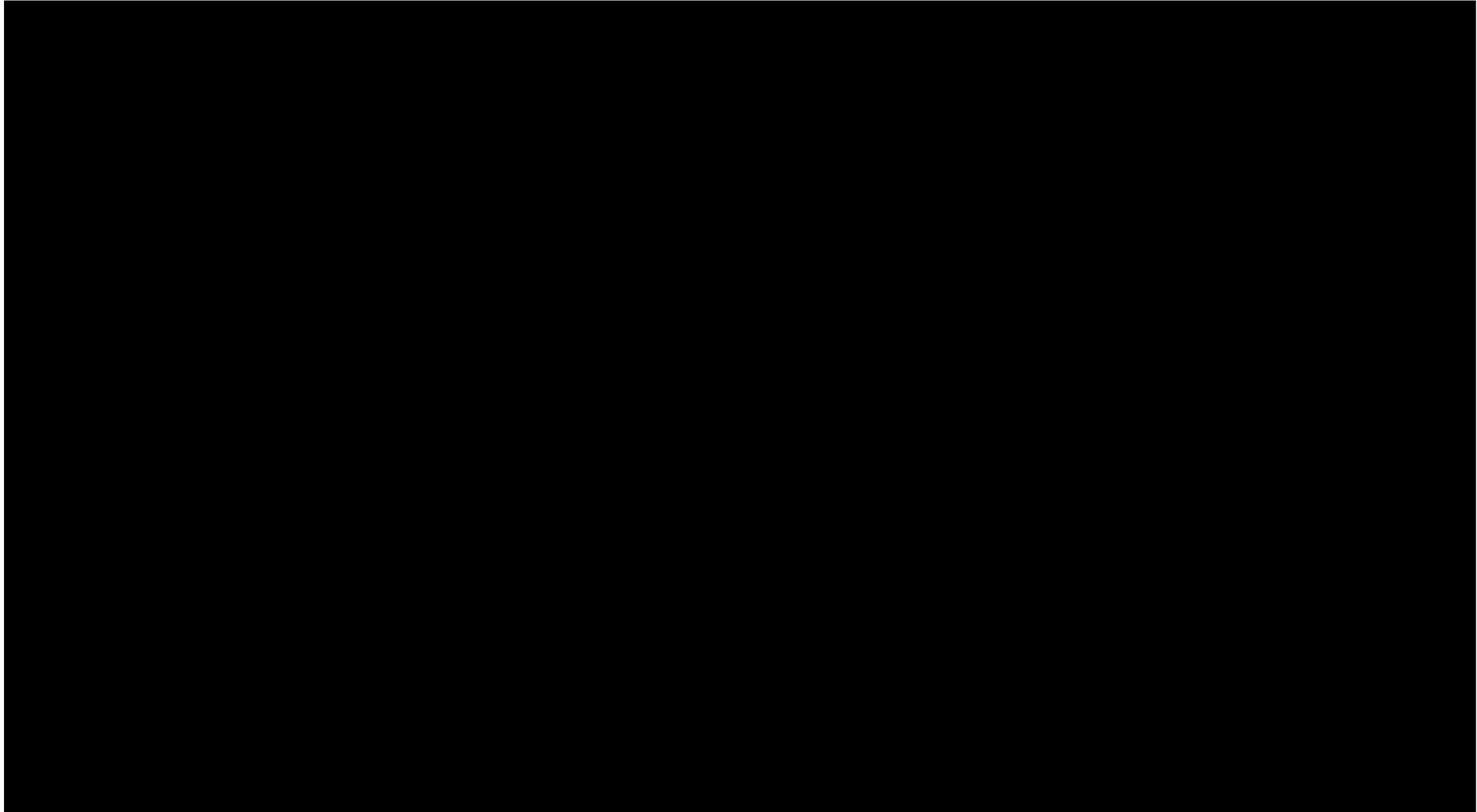
Using the LUC to simplify commercial drone use

An high-level overview
about chances, risks
and requirements
evolving

Jan-Eric Putze
CEO Droniq GmbH

DRONIQ
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FLIGHT

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Droniq's route to UTM full service provider



UAS regulation in the EU-Region

Today



UAS regulation in the EU-Region

Future



Why do we need an european-wide regulation?



Innovation

Europe's drone market should continue to grow and remain innovative



Confmormity

Uniform specifications for manufacturers and introduction of drone classes



Harmonzation

Cross-border operation with drones is to be standardized and therefore made easier



Safety

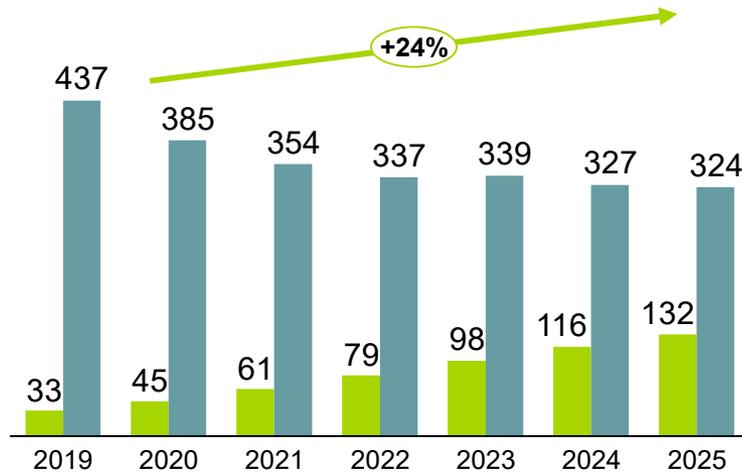
Standardized rules and regulations will increase safety

German market figures

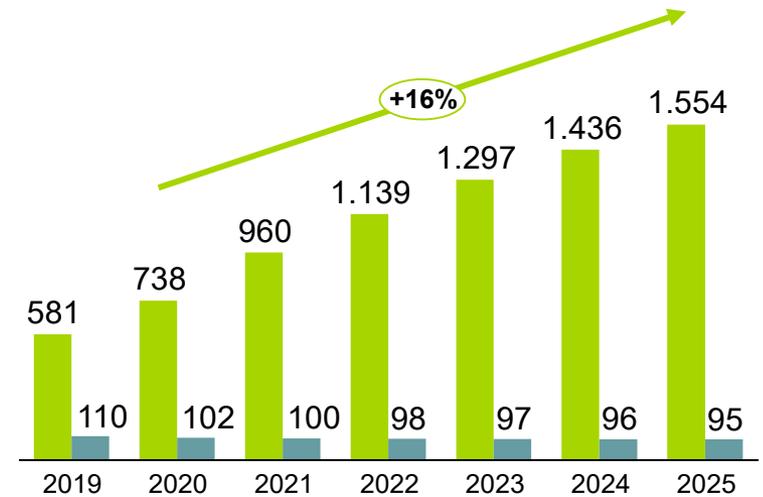
High-potential for commercial drone operations (BVLOS)

Growth Forecast 2025 in Germany

Drone operations in Germany (thousand)



Market potential in Germany (M€)



Commercial Private

EASA specifications for UAS operations

- Definition of a risiko-based approach for UAS operations
 - Open / Specific / Certified

Category of operations	Open <i>low risk</i>	Specific <i>medium risk</i>	Certified <i>high risk</i>
Authorisation needed	None	Authorisation from NAA based on operational risk assessment or specific scenario	Authorisation from NAA/EASA
UAS	Compliant with Commission Delegated Regulation on UAS	Compliant with requirements included in the authorisation	Certified UAS
Operations allowed	Restricted to: <ul style="list-style-type: none"> ▪ VLOS ▪ Altitude < 120 m ▪ Other limitations defined by: <ul style="list-style-type: none"> - Commission Regulation on UAS operations - National airspace zones 	Restricted to: <ul style="list-style-type: none"> ▪ Operations specified in the authorisation ▪ Limitations defined by national airspace zones 	Controlled airspace U-Space

Problem statement and solution



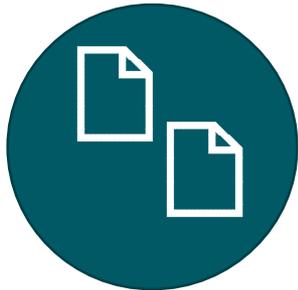
- High degree of bureaucracy
- No standardisation
- Long approval process
- Different from manned aviation
- Missing acceptance
- High regulation in aviation meets mostly unregulated UAS industry
- **Intermediation between all airspace users urgently needed**



- EASA offers various solutions for efficient drone operations
 - Operation reflecting per-defined standartszenarios
 - Authorisation of Operation
 - LUC
- ANSP's and national authorities need to understand the needs of drone operators

Specific Category

3 different types of operation possibilities



operational authorisation

- SORA
- ConOps
- submit application and wait for authorisation



LUC

- self-authorise operations
- submit application and wait for certification



Standard Scenario (STS)

- require drone with C5 or C6
- submit declaration and wait for confirmation

LUC

Operational Structure

1. General

2. Safety Management 

3. ConOps



Safety Management System



Change management



Risk management



Compliance monitoring



Organisational structure



...

Some more numbers

111

Registered AOC holder in
Germany over the last 30
years

257.192

Registered Drone Operators in
Germany
within **month**

Challenges

For manned and unmanned aviation eco-system

- Drones are primarily used by "non" aviation operators e.g. telecommunication, surveying, inspection
 - No experience with the competent authorities
 - New and very specialised procedures
 - Drones are complex flying systems and move in 3 dimensions as manned aviation, but the operation is different in speed and directional changes
- Drones in the category open and specific are currently not visible for ANSP's
- CTR's are not designed for drone operations
- Existing 2-way radio communication is not suitable
- Drones in the category open and specific are currently not visible for ANSP's
- Time to market speed does not cope with existing aviation standards

The future is already here, let's be part of it!



Vision or reality?





Your contact

Jan-Eric Putze
CEO Droniq GmbH

Ginnheimer Stadtweg
88
60431 Frankfurt Main
jan-
eric.putze@droniq.de