



vito

vision on technology

04/11/2013

UAS (RPAS) regulations: current status and development

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FLIGHT PLUS
Your Flight, Our Concern



RPAS
Remotely Piloted Aircraft Systems

BeUAS
FOUNDING MEMBER

Content

- » Current approach
 - » Flight permits (PtF)
 - » Different approaches
 - » Who to contact?
 - » Documents needed
 - » Constraints
 - » National Procedures
- » Outlook
 - » International
 - » Europe/National
- » Conclusion



Why use flight permits? – current approach

- » There is no legal framework yet to integrate manned and unmanned aviation in one single sky.
- » Full integration of RPAS means, adapting:
 - » Air Traffic Management,
 - » Airworthiness standards,
 - » Training requirements, ...



- » Those elements are not yet fully present:
 - » « PERMIT-TO-FLY »

Different approaches

- » Countries **WITHOUT** specific RPAS legislation :
 - » Not allowed at all (pratically G.D. Luxemburg)
 - » Allowed, but case per case
 - » •With admin fee (e.g. Germany)
 - » •Without fees (e.g. Belgium, Netherlands)
 - » Free flight under specific conditions (e.g. Panama)

Different approaches

- » Countries **WITH** specific RPAS legislation :
 - » **CAA stipulated RPAS regulations, BUT**
 - » Big differences between countries,
 - » Difficult for RPAS operators.
 - » **FRANCE, UK,...**

Who to contact?

- » Who do you need to contact to obtain a Flight Permit (depending the situation)
 - » CAA - Civil Aviation Authority
 - » Civil and Military ANSPs
 - » Landowner
 - » Stakeholders

Who to contact?

- » Stakeholders:

- » Heliports, airports, ...
- » Power lines and power plants
- » Waterways and sea canals Division
- » Industries (chemical, ...)
- » Motorways (Federal Police)
- » Customs



Documents needed

- » What documents do we need to obtain a Permit ? Differs from country to country, but in general:
 - » Manuals,
 - » Detailed information about the flight,
 - » Permissions,
 - » Insurance certificate,
 - » Proof of experience.

Documents needed - Manuals

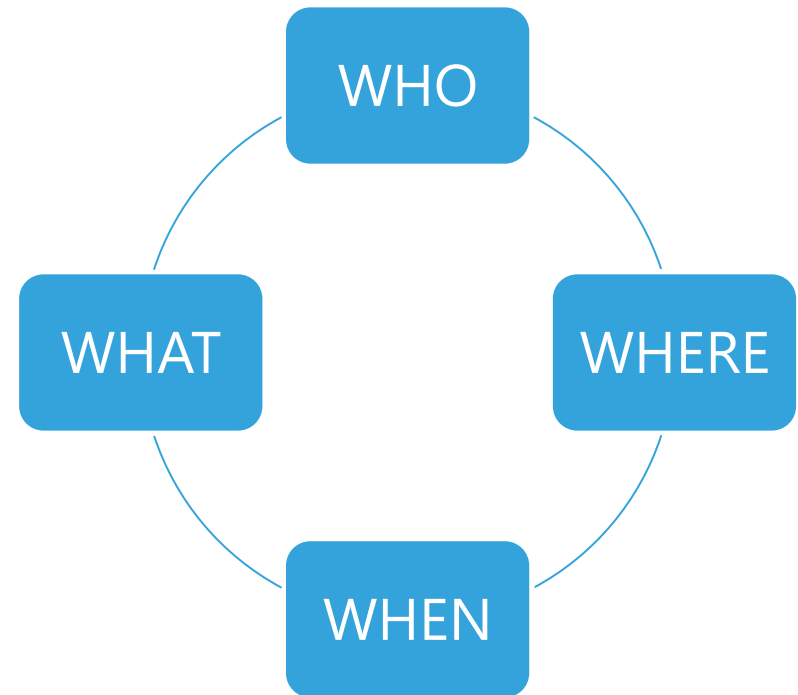
» Creating manuals is the most important document to show the CAA you CAN fly safely:

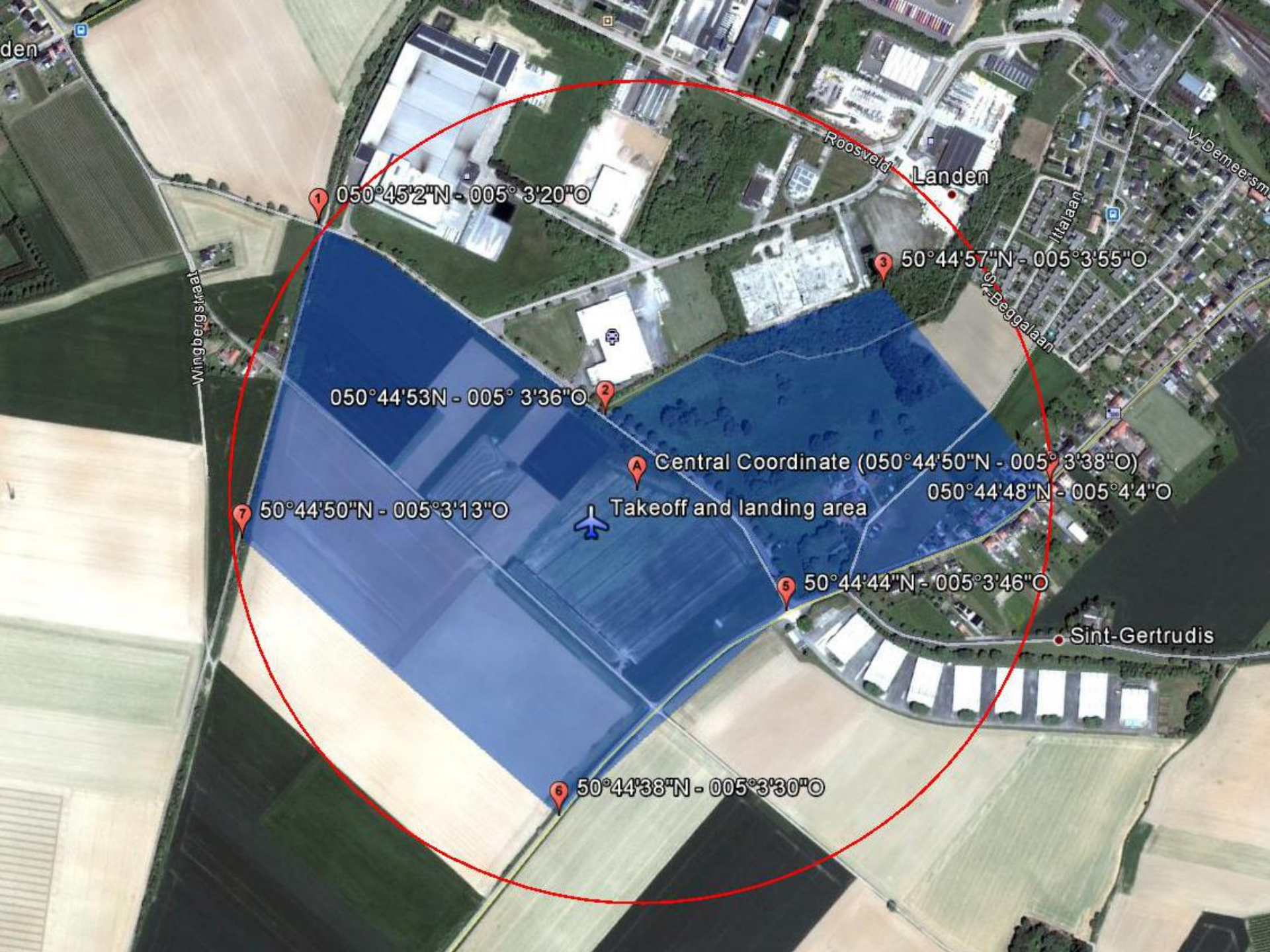
- » Operational manual
- » Safety manual
- » Technical manual



Documents needed – Flight info

- » Information about the flight:
 - » Who: Applicant
 - » What: Type of RPAS
 - » Where: Height - Lateral limits
 - » When: Date and timings





1 050°45'2"N - 005° 3'20"O

Landen

Roosveld

Ittalaan

V. Demeersm

Wingbergskaat

V. Beggalaan

3 50°44'57"N - 005°3'55"O

2 050°44'53N - 005° 3'36"O

Central Coordinate (050°44'50"N - 005° 3'38"O)

Takeoff and landing area

050°44'48"N - 005°4'4"O

7 50°44'50"N - 005°3'13"O



5 50°44'44"N - 005°3'46"O

Sint-Gertrudis

6 50°44'38"N - 005°3'30"O

Documents needed - Permissions

» Permissions:

- » Landowner
- » Stakeholders



Documents needed - Insurance

- » Insurance certificate
 - » New sector → Insurance companies not ready yet
 - » Private liability insurance
- » Aviation insurance
- » Creation of RPAS specific insurance



Documents needed

- » Provide the CAA with proof of experience, such as:
 - » Attended training courses, both practical and theoretical,
 - » Licenses, ...



CERTIFICATE
UAS FLIGHT TRAINING

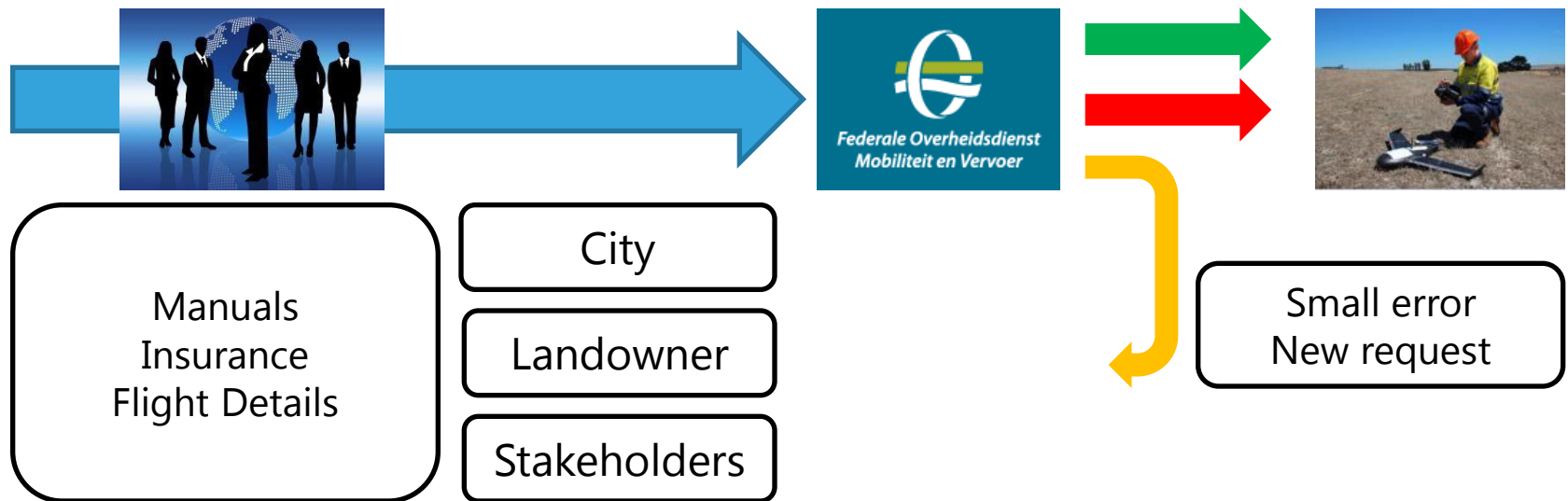


Constraints

- » Generally: complex, not clear, long lasting,
- » When contacting the CAA:
 - » Not easy to find the right Point of Contact (POC)
 - » Language barrier
 - » No information on website or professional channels
 - » 2 – 4 weeks to get an approval
 - » Land owner approval
 - » Time consuming (rural areas/different owners)

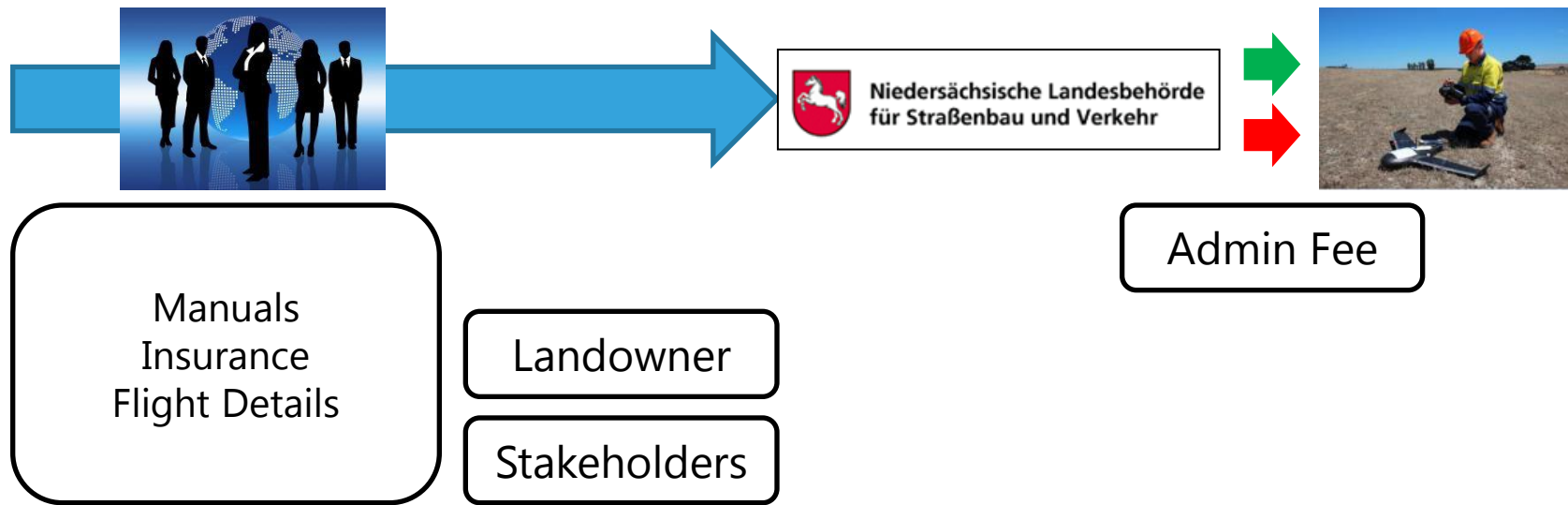
National Procedures

» Belgium 



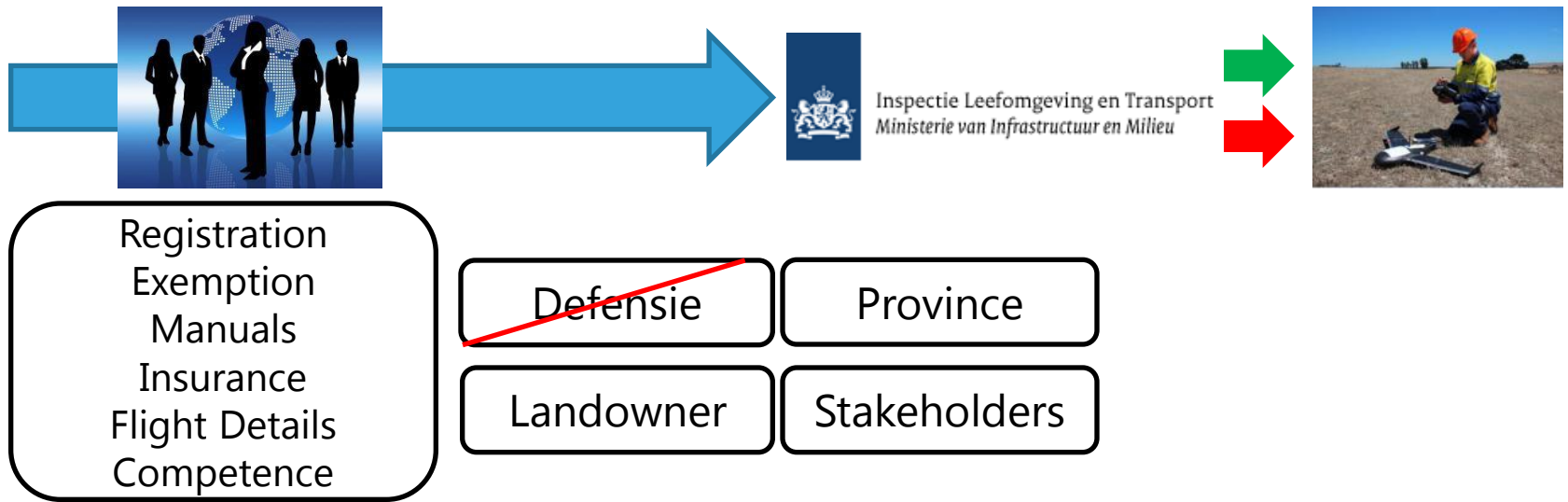
National Procedures

» Germany 



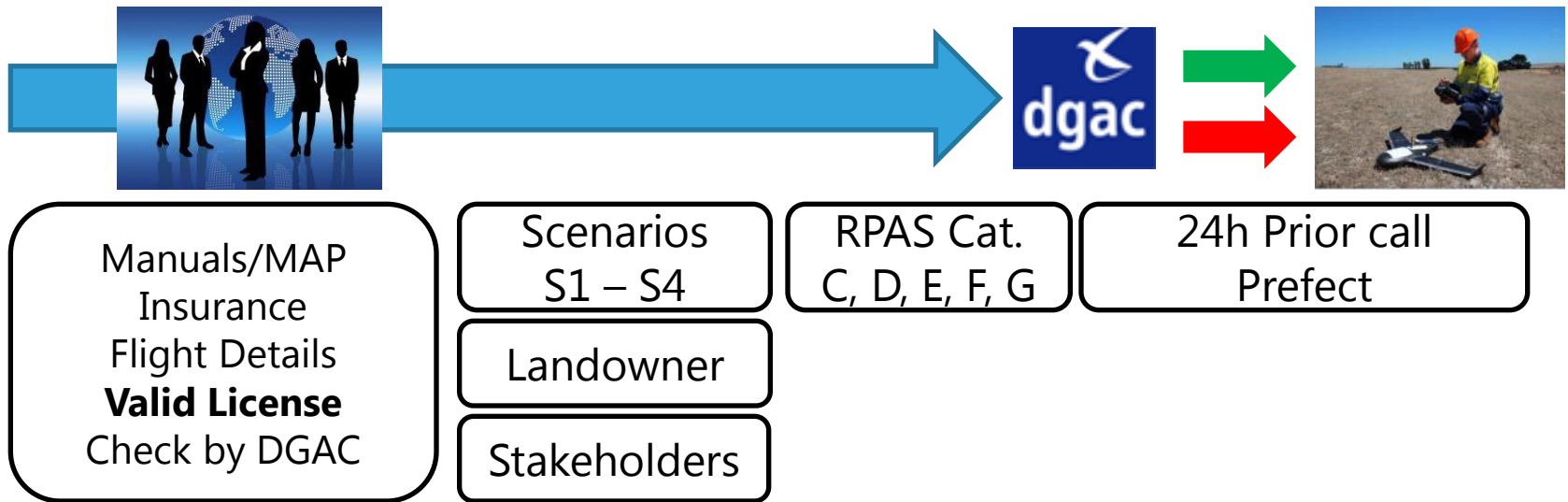
National Procedures

» The Netherlands 



National Procedures

» France 



Outlook - Legislation

- » Legislative landscape is “complex”!

ICAO → RPAS not UAV, UAS

(International Civil Aviation Organization – 1947 – UN Agency)

EUROPEAN STAKEHOLDERS

European Commission, EASA, EUROCONTROL, EDA, JARUS

NATIONAL STAKEHOLDERS

CAA, ANSP's

Outlook – ICAO – Feedback BCAA

- » 1. For ICAO, RPAS is still recognised as being an aircraft.
- » 2. For ICAO, accident/incident reporting for RPAS is mandatory.
- » 3. the RPAS as system needs an approval before flying. Not necessarily a certificate of airworthiness, but a method whereby there is a thorough check before entering airspace.
- » 4. pilots need a remote pilot licence and the applicable ratings before they can fly the RPA.
- » 5. civil operators of RPAS shall be under oversight
- » 6. ICAO RPAS manual to be published in 2014
- » 8. RPAS Symposium planned in Nov 2014
- »

Outlook - Europe and legislation

- » EASA works on RPAS above 150 kg and possible cross-border < 150 kg
Extension of role likely
- » European Roadmap published (07/13) by the European RPAS Steering Group (ERSG):

<http://ec.europa.eu/enterprise/sectors/aerospace/uas/>

- » Integration starting from 2016 onwards



Outlook – nearby future

- » Most of the countries are working on a RPAS legislation...
- » Every CAA has a different approach...

Framework tomorrow (2014) in Belgium (and probably also EASA...)


- » RPAS approved based on
 - aircraft flight manual
 - safety analysis report
- » RPAS registered in aviation register
- » remote pilot with remote pilot license & applicable ratings
- » RPAS operator with RPAS operator certificate
- » RPAS operations in compliance with rules of the air

Conclusion

» Today:

- » Long procedures – several weeks
- » Each country is different

» Actions/Needs for the future

- 
- » Faster procedures
 - » Transport way of communication of rules by CAA's
 - » General applicable rules
 - » Complete integration of RPAS in a 'Single European Sky'

Thanks for your attention!!

» Let sleeping dogs lie:
frequencies and power emissions...

» **Q&A**

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