INSTA

– Building and Developing a Safe and Competitive Society

Training is foundation of safe RPAS operations

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Insta Airhow Oy

WHY:

- Making unmanned aviation safe for all of us
- Enabling sustainable operations and business

HOW:

- promotion of safe aviation culture among RPAS operators
- Education of unmanned aviation

WHAT:

- E-learning courses for introduction and safe operation of RPAS
- On-site training and practise
- Advanced courses of application domains

What is wrong with unmanned aviation in Finland?

- Legislation requires knowledge of aviation, operating skills, and safe procedures
- Training is **not required**, but it **is needed**
- Reasons for not seeking training?
  - Unawareness of acts and regulation
  - Lack of aviation safety culture – flying a manned aircraft presents the fear of own death. In case of RPAS the 3rd party is in danger.
  - Small business -> lack of interest and money?
  - People don't read the terms and conditions of their liability insurance?
  - Technology makes flying easy and marketing promotes the "Just fly it!" culture.
- Multiple dangerous incindents between RPAS and manned aircraft.
- Other world sees the RPAS aviation differently => liberal rules have also negative effects on business opportunities abroad.
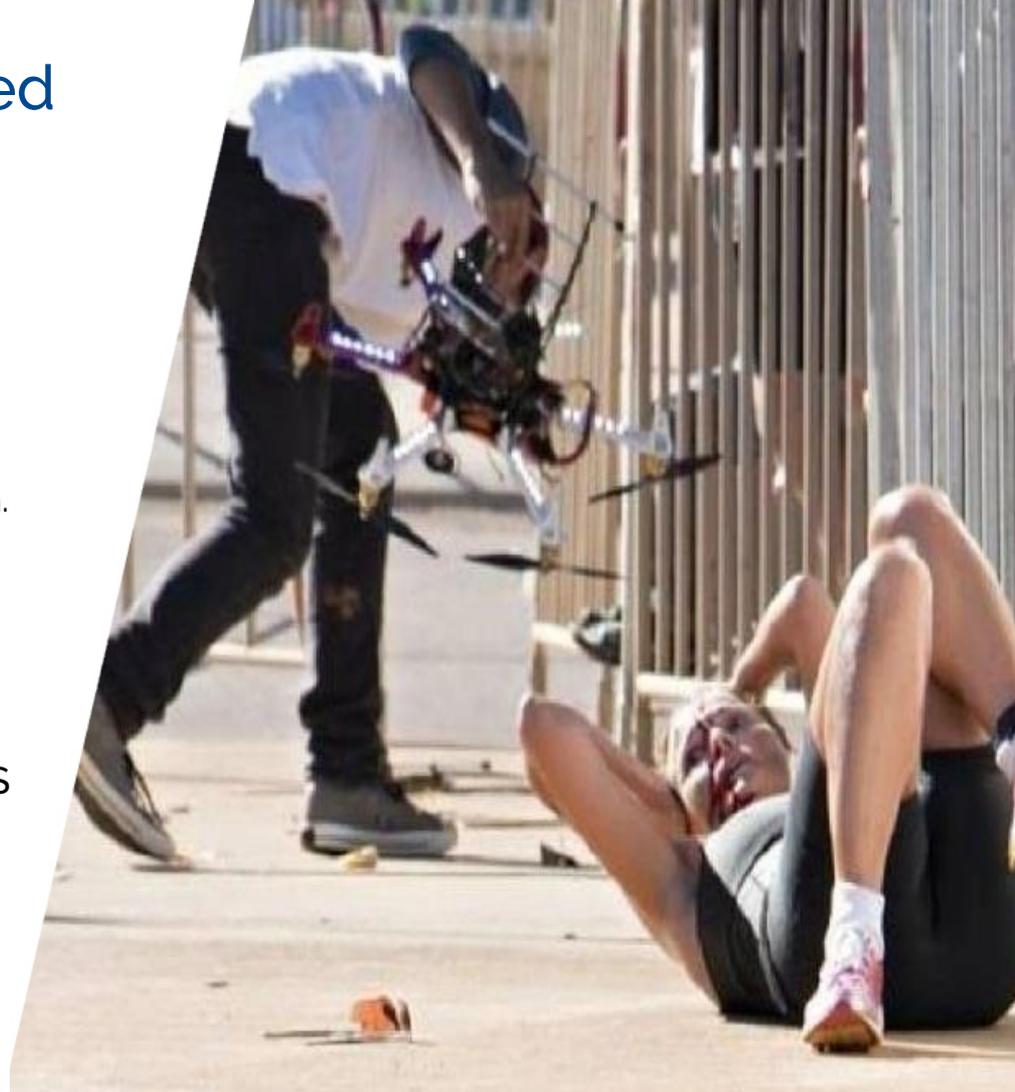
Large amount of legislation affects RPAS operations

- Aviation Act and aviation regulations (including OPS M1-32)
- EC regulation on insurance requirements for air carriers and aircraft operators
- Occupational Safety and Healt Act
- Territorial Surveillance Act
- Decree on prohibited and restricted airspace (930/2014)
- Act on plant protection (airborne spreading)
- Acts and decrees handling privacy issues

Change is coming...

- EASA has published prototype rules for RPAS (22.8.2016)
  - Brings training requirements from categy Open A3 upwards
- Rules to be published in spring 2017?

What new rules will bring and what we need?

- In 2017 EASA will most likely set clear certification requirements for manufacturing, operation and maintenance.
- Effective In 2019 but no engineering programs of the area exists at the moment.
- To support industry and business, Finland needs good engineering training on RPAS for different roles and different levels (vocational college, univ. of applied science, technical universities)
- Lack of academic recognition of manned pilot training. Maybe RPAS could make things better?
- Insta Airhow supports the academia in the development of such programs.

EASA
European Aviation Safety Agency

OPEN

SPECIFIC

CERTIFIED

Insta RPAS training program

Mission level civil modules
(media production, mapping, BVLOS, SAR)

Governmental tactical RPAS training

e-learning & simulation

Practical RPAS-training

Integrated RPAS type training + practical training
(e-learning +
on site training)

RPAS type training by manufacturer

Principles and safe operation of RPAS (e-learning)
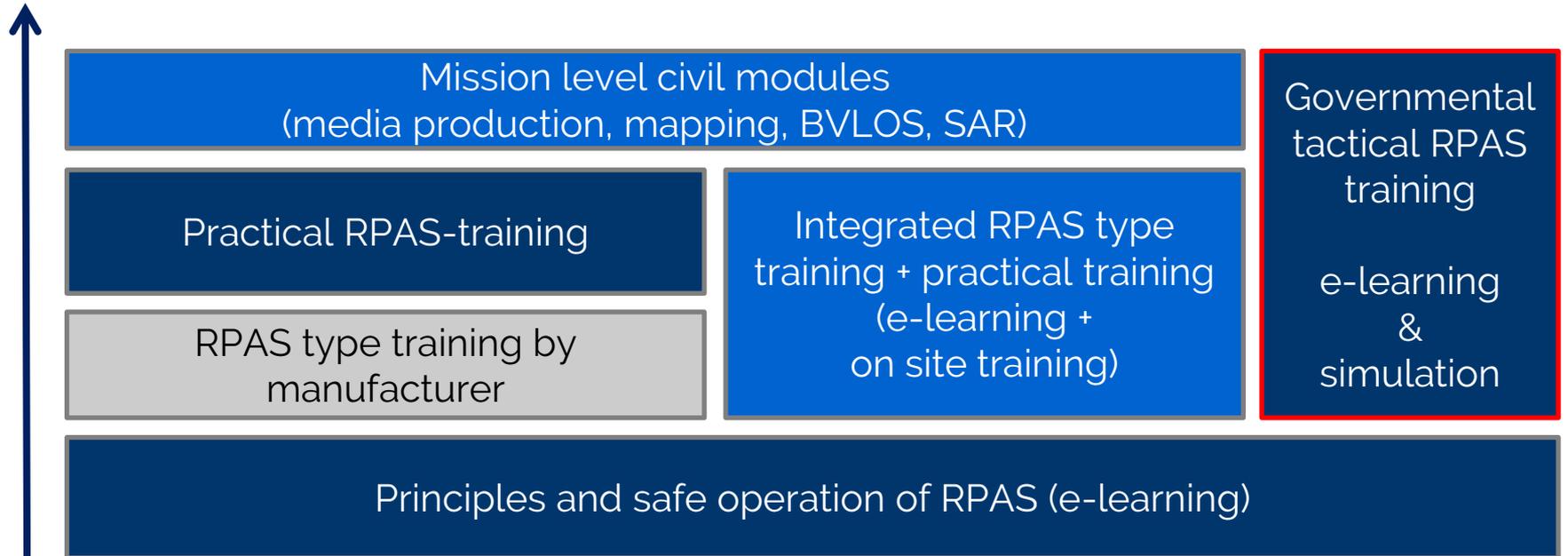
Insta's own product

Insta with partners

RPAS manufacturer

Observations of RPAS training

- Survey: more than 50 % wanted to learn about current legislation.

- Largest practical problems are the risk assessment and proper flight planning using aeronautical information services (AIS).

- People with prior aviation experience are most interested to aquire training on RPAS operations. Indicates the different safety culture.

- Lately, several companies have started to provide RPAS training, in some cases the training content and used terminology is not convincing.

- EASA: Qualified Entity -> training permissions?

Demonstration of E-learning system

- Giving general introduction and guidance several types of RPA systems – small and big / Fixed wing and rotary wing.

- Promotes the general understanding of the RPAS domain, meaning of different system components and their properties.

- Gives accurate and up-to-date information of the legislation.

- Provides procedures and examples of safe operation of RPAS.

- Introduces and promotes the flight safety

Thank you!