



JAA Training Organisation (JAA TO)

2nd UAS – RPAS Implementation/Regulation Workshop (UAS/RPAS/W)
for NAM/CAR/SAM Regions



- Dutch non-profit organisation with 50+ years of experience in aviation regulation
- Unique ICAO Training Centre of Excellence in Europe (300 training courses annually)
- Virtual & classroom training in safety, security, UAS/RPAS, consultancy and capacity building
- Recognised by JARUS for UAS courses
- Drone diploma includes ICAO STPs and ITPs



Paula V. de Almeida, Med – JAA TO Director



Filippo Tomasello – Subject Matter Expert, JAA TO UAS Faculty Manager

Drones overall will be more impactful than I think people recognize, in positive ways to help society.

– *Bill Gates*

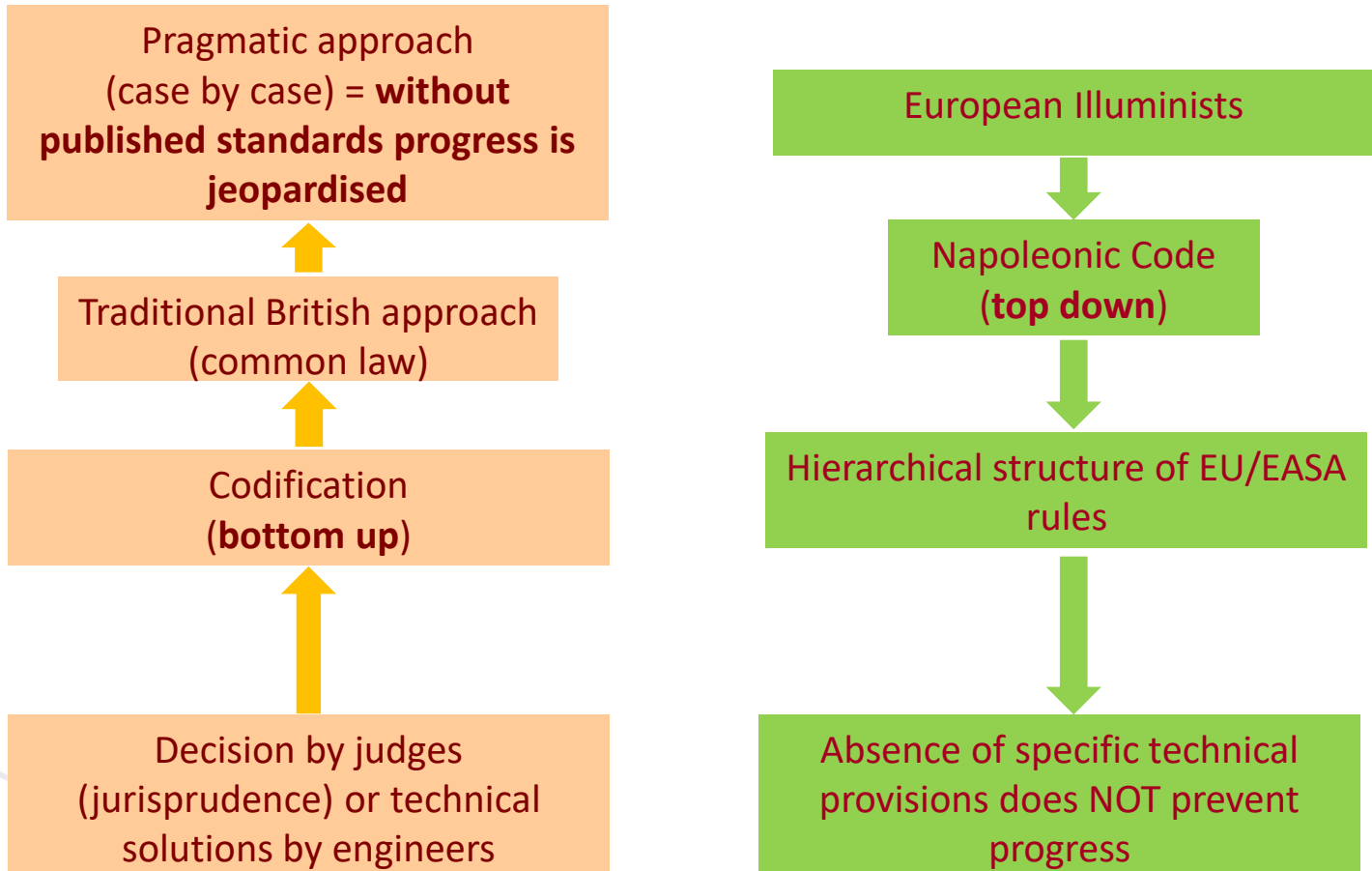
Are UAS a disruptive innovation?

Innovations create new markets by discovering new categories of customers – commercial use of this technology has never been higher.

- Bring aviation into 3rd Industrial Revolution
- Advancements in Big Data and AI allow for new software, flying becomes about information transport rather than objects
- *Democratic* revolution in the pool of aviation stakeholders (easy, small and cheap)
- *Colonise* underused airspace regions (below 500ft AGL and above FL 600)
- Force authorities to rethink regulatory framework
- Oblige to reconsider ATM below 500ft = UTM/U-Space (UAS Traffic Management)
- Imply significant shift from tradition for learning objectives, selection and training of remote pilots (e.g. privacy)

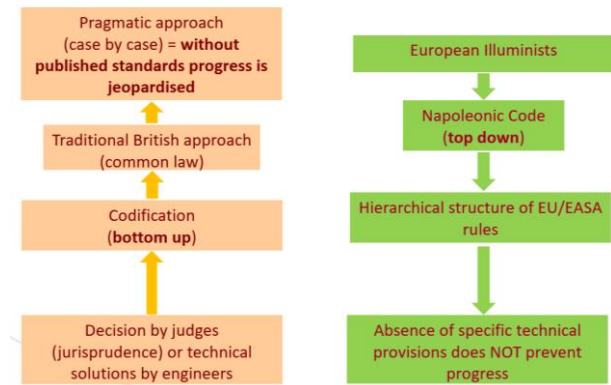
From Hammurabi to EASA – two legal traditions

Specific category uses blending of common law tradition with European regulation.



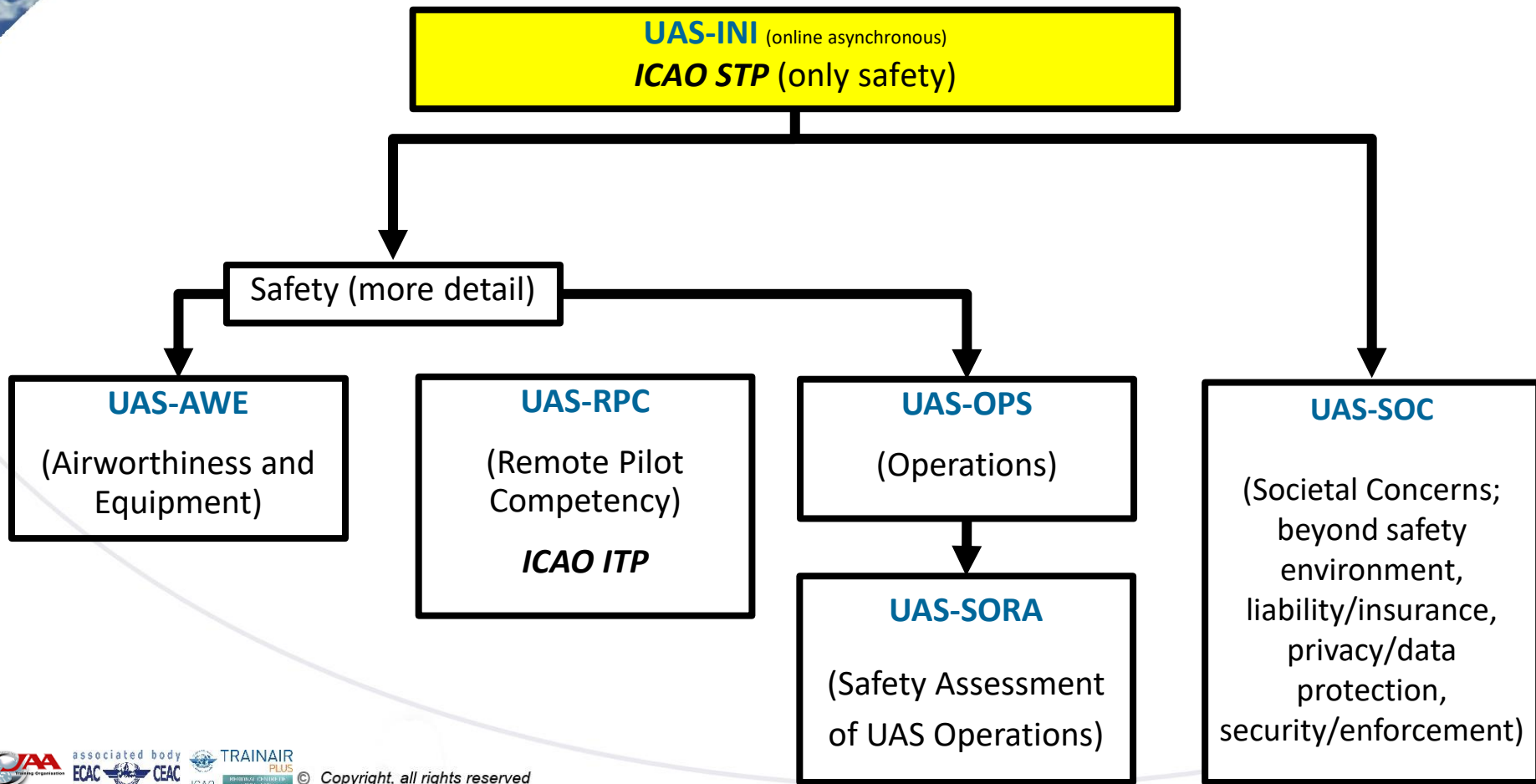
Euro-centric take-away NAM/CAR/SAM Regions

- The European Union (EU) Regulations on UAS are **performance-based**, as per ICAO Assembly Resolution A39-22
- They are also **risk-based**, minimising workload on authorities, while maintaining safety through industry conformity processes
- For the *open category*:
 - Limited competency of personnel
 - Therefore **top-down (prescriptive) approach**
- For the *specific category*:
 - **Pragmatic approach** based on risk assessment (case-by-case)



UAS portfolio

JAA Training Organisation offers a large portfolio of UAS training (virtual/classroom/online) that can be combined into a voluntary UAS diploma badge. In 2020, JAA TO received four training certifications by Joint Authorities for Rulemaking on Unmanned Systems (JARUS).



JAA TRAINING ORGANISATION UAS DIPLOMA

Below is the JAA Training Organisation (JAA TO) Unmanned Aircraft Systems (UAS) Diploma scheme. The courses (virtual/classroom/online) can be combined into a voluntary UAS diploma badge after completion of the mandatory and elective(s) training path. This unique UAS-focused education will provide JARUS-certified course content bundled in interactive training activities and knowledge solutions. Fast-track your career and receive unique credentials by obtaining the JAA TO diploma.

MANDATORY TRAINING

UAS-INI



BASICS OF EUROPEAN REGULATIONS OF UNMANNED AIRCRAFT SYSTEMS (UAS)

Basic common rules on safety to fulfil pre-requisite to fly drones.

2 3 4 5 6

ELECTIVES

Mandatory + Electives = Diploma

UAS-AWE

SAFETY (MORE DETAIL)

AIRWORTHINESS REQUIREMENTS & EQUIPMENT FOR UNMANNED AIRCRAFT SYSTEMS (UAS)

Overview of the existing type certification specifications for UAS and emerging standards for equipment (e.g. geofencing), CE marking and declaration of conformity.

UAS-SOC

SOCIETAL CONCERNS ON UNMANNED AIRCRAFT SYSTEMS (UAS)

EU Regulation initial rules expanding in the context of emerging common rules on drones to include security, environment, enforcement, liability, insurance, privacy and data protection.

UAS-OPS

SAFETY (MORE DETAIL)

PROFESSIONAL OPERATIONS OF UNMANNED AIRCRAFT SYSTEMS (UAS)

Aviation authorities "operation centric" perspective on safety of operations for legal and safe non-military drone purposes, including limitations in A/B/C category.

UAS-RPC

COMPETENCY & LICENSING OF UAS REMOTE PILOTS (EU CAT)



Common European rules supplementing ICAO provisions for Remote Pilots (RP) for domestic operations as well as for the competence of RPs in the open and specific category.

UAS-SORA

SPECIFIC OPS RISK ASSESSMENT FOR UNMANNED AIRCRAFT SYSTEMS (UAS)

SORA methodology for submitting EU category B ("specific") risk assessment to the civil aviation authority.

UAS DIPLOMA

For more details, visit www.jaato.com/uas-diploma



associated body
ECAC CEAC



TRAINAIR
PLUS

MEMBER SINCE 19
2014

© Copyright, all rights reserved

Tackling the challenge

A challenge in quantitative and qualitative terms. Drones are still new. Expecting huge number of drones occupying the air at an unprecedented speed, how can safety of the industry be guaranteed?



- Need for training to ensure safe and secure operations of industry and operating personnel
- Anticipating the needs and future trends, JAA TO is available to cooperate with other centers of excellence to improve the quality of training and support capacity-building globally
- Continuous efforts led in course development, JAA TO hosts portfolio of current and new ICAO ITPs/STPs to support UAS community in the developing market
- Contact JAA TO at director@jaato.com or training@jaato.com
- More information, visit www.jaato.com



For more information
please visit our website:
www.jaato.com