



**EASA**  
European Aviation Safety Agency

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# UAS Open and Specific category Workshop

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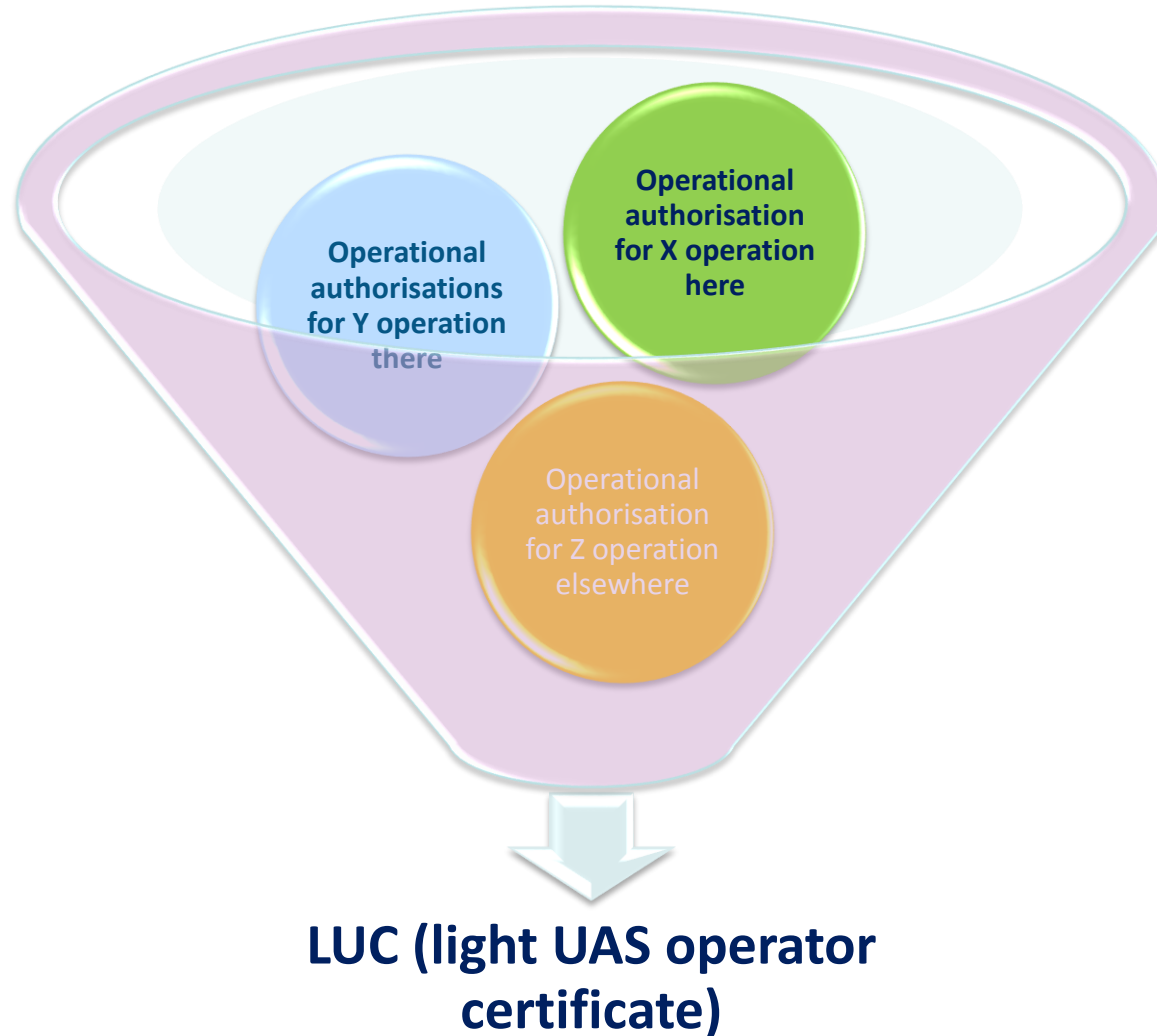
## Light Unmanned operator Certificate (LUC)



Irina Petrova  
European Aviation Safety Agency



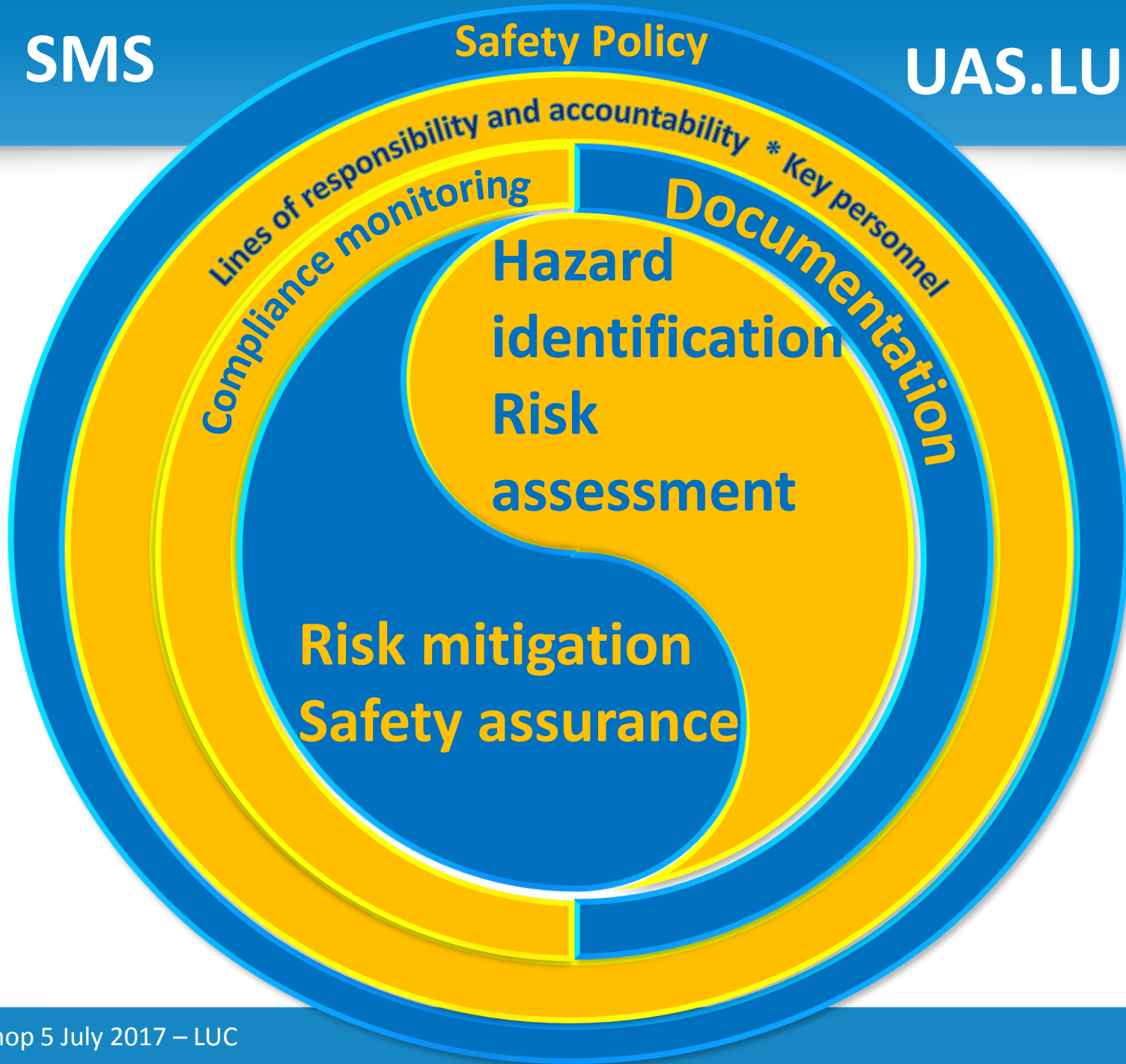
# Operational authorisation v. LUC





# What is a LUC?

- A LUC is an organisational concept - only legal entities may apply for it
- A LUC is not a mandatory requirement
- A LUC is one of the tools to promote the theory and practice of *risk management* within UA industry
- A LUC shall be granted to those organisations that have established a *safety management system (SMS)*
- The SMS must correspond to the size of the operator as well as the nature and complexity of its activities





# What is a complex UAS operator?

- the UAS operator is considered as *complex*, if it operates UA:
  - over congested areas of cities, towns or settlements, or over an open-air assembly of persons;
  - long range BVLOS;
  - that carry dangerous goods; and
  - that are used for cargo delivery in urban areas.
- the competent authority assesses the nature and complexity of an operator on a case-by-case basis.





# Privileges of LUC holder

- A LUC holder shall be able to authorise its operations by himself within the *scope* and *privileges* of the LUC without involvement of the Competent Authority
- The competent authority may grant the following privileges to the LUC holder:
  - to conduct an operation included in a standard scenario subject to declaration, without submitting the declaration to the CA;
  - to conduct an operation included in a standard scenario subject to authorisation, without applying for it to the CA;
  - to conduct an operation not included in a standard scenario, without applying for it to the CA.



# Subcontractors

- Where subcontractors are used, the SMS of the UAS operator must ensure that the service or product delivered by the subcontractor conforms to the requirements by:
  - managing the services under its own SMS
  - describing in the LUC manual how its own SMS interfaces with the (safety/quality) management system of the subcontractor





# Safety committee

- A complex UAS operator must have in its organisation a safety committee to support the accountable manager
- the safety committee monitors:
  - the operator's performance against safety objectives and performance standards;
  - whether safety action is taken in a timely manner; and
  - the effectiveness of the operator's safety management processes.







# Safety action group

- A complex UAS operator must have one or more safety action groups (SAGs) to assist the safety manager
- An SAG is comprised of managers, supervisors and personnel from operational areas, depending on the scope of the task and the specific expertise required
- An SAG performs the following:
  - monitors operational safety and assesses the impact of operational changes on safety; and
  - ensures that safety measures are implemented within agreed timescales





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# Questions

<http://www.easa.europa.eu/easa-and-you/civil-drones-rpas>





# Complex and non-complex SMS

Capability of the management system	non-complex UAS operators	complex UAS operators
identify hazards through reactive and proactive methodologies, using various data sources including safety reporting and internal investigations	✓	✓
collect, record, analyse, act on and generate feedback about hazards and the associated risks	✓	✓
develop an operational risk assessment	✓	✓
carry out internal safety investigations that go beyond the scope of occurrences required to be reported to the competent authority		✓
monitor and measure safety performance through safety reports, safety reviews, in particular during introduction and deployment of new technologies, safety audits, including periodically assessing the status of safety risk controls, and safety surveys		✓
manage safety risks related to a change, using a documented process to identify any external and internal change that may have an adverse effect on safety		✓
manage safety risks stemming from products or services delivered through subcontractors, by using its existing hazard identification, risk assessment, and mitigation processes, or by requiring that the subcontractors have an equivalent process for hazard identification and risk management	✓	✓
respond to emergencies using an emergency response plan (ERP)		✓



# QMS v. SMS

- The QMS has already established many of the processes that the SMS requires, such as management review, analysis of data, corrective action, and internal audit, documentation and document control, incident/non-conformance reporting, maintaining records, managing training, maintaining equipment
- What's the difference between SMS and quality management systems (QMS)?
- Some improvements to QMS processes are needed to fully meet SMS requirements. Examples include establishing processes to better identify new hazards (hazard identification and risk assessment) and establishing processes to measure the effectiveness of safety risk controls (safety assurance)
- Both systems enhance safety and are essential and complimentary management tools. You cannot have an effective SMS without applying quality management principles.