

MULTIDRONE AMBITION

MultiDrone



- **Improved multiple drone decisional autonomy, robustness and safety.**
 - Adaptive/cooperative/dynamic (online) multiple drone (re)planning
 - Transparent interaction with production director/crew.
 - Improved safety during multiple drone mission execution
 - Robust multiple drone communications (control, video streaming and synchronization)
- **Innovative, safe and fast multiple drone active perception and AV shooting.**
 - Multiple drone semantic world modelling, vision and other sensor based target tracking.
 - Multiple drone AV shooting intelligence
 - Improved multiple drone human-centered visual information analysis both for individual persons and for crowds



MULTIDRONE APPROACH



- The overall R&D methodology is based on a strong interplay between:
 - a) Multiple drone mission planning/control
 - b) active perception and mission (AV shooting) execution.
- Pre-production:
 - semantic world mapping
 - mission planning
- Production
 - multiple drone flight/formation control
 - active perception (multiple drone and target localization tracking),
 - cinematographic AV shooting.
 - safety/emergency monitoring/sensing
 - emergency handling.





MULTIDRONE IMPACT

- Development of **innovative multiple drone systems** which achieve **measurable service** level gains in **AV shooting**.
- Measurable improvements in the provision of multiple drone **autonomy over an extended time scale**.
- Advances in the development and understanding of **new metrics** characterizing the operation of multiple drone systems.
- **New frontiers** for TV programme production and drone cinematography
- **Overcoming Barriers/obstacles** due to regulations, public acceptance and other factors

