



ALADDIN PROJECT

PRESENTATION

ALADDIN - Advanced holistic Adverse Drone Detection Identification & Neutralization

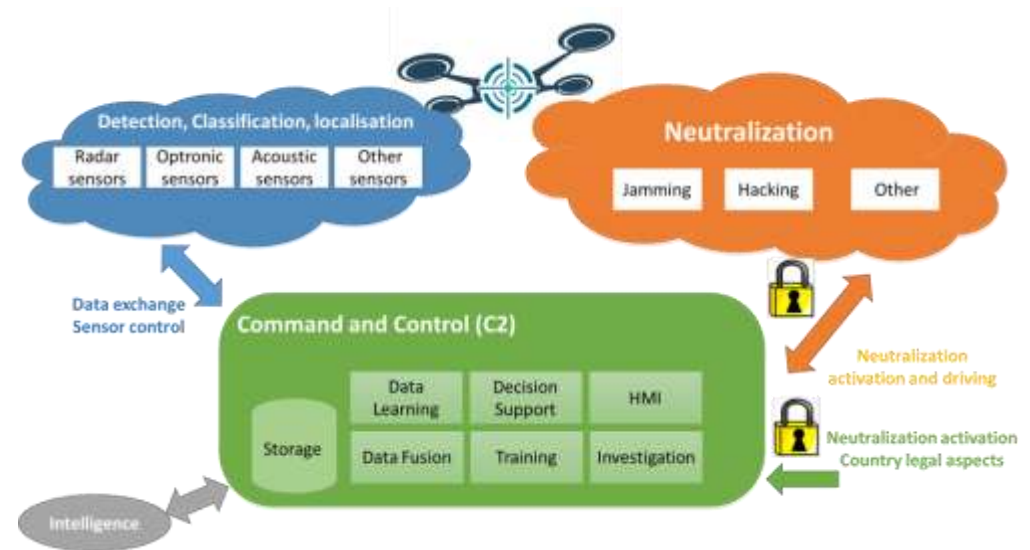
- ➔ European H2020 Project - Research and Innovation Action (RIA)
 - › Call “**SEC-12-FCT-2016-2017**” (August 2016): Secure societies – Protecting freedom and security of Europe and its citizens - **Fight against Crime and Terrorism**
 - Sub-topic 2: Detection and neutralization of rogue/suspicious light drone/UAV flying over restricted areas, and involving as beneficiaries, where appropriate, the operators of infrastructure
- ➔ Consortium of 18 partners, including 12 technical partners and 6 Law Enforcement Agencies (LEAs)
 - › Coordinated by **DIGINEXT** (France)
- ➔ Grant Award in August 2017
 - › Grant Agreement – **740859**
- ➔ 3 years duration
 - › Sept 2017 => Aug 2020
- ➔ 2 cycles / iterations
 - › Beta version – Month 18 – February 2019
 - › Final version – Month 36 – August 2020
- ➔ Experiments in real environments
 - › Open field & Urban area



OBJECTIVES

Main objectives:

- ➔ Study and develop a state-of-the-art, global, and extensible system to
 - › Detect, Localise, Classify, and Neutralize:
 - suspicious, and potentially multiple, light UAVs over restricted areas
- ➔ Develop a Counter-UAV system
 - › Building on BOREADES system (previous French project)
 - › Sensor suite with multi-mode detection capability:
 - 2D & 3D radar, optronic, thermal and acoustic
 - › Innovative neutralization capability
 - › Advanced Command and Control (C2)
 - Cutting-edge processing including deep learning filtering and data fusion
- ➔ Take into account Operational Constraints
 - › Ease of use and deployment, Quality of detection, Safety
- ➔ Enhance Security and provide tools for operational support to LEAs
 - › Investigations, Training



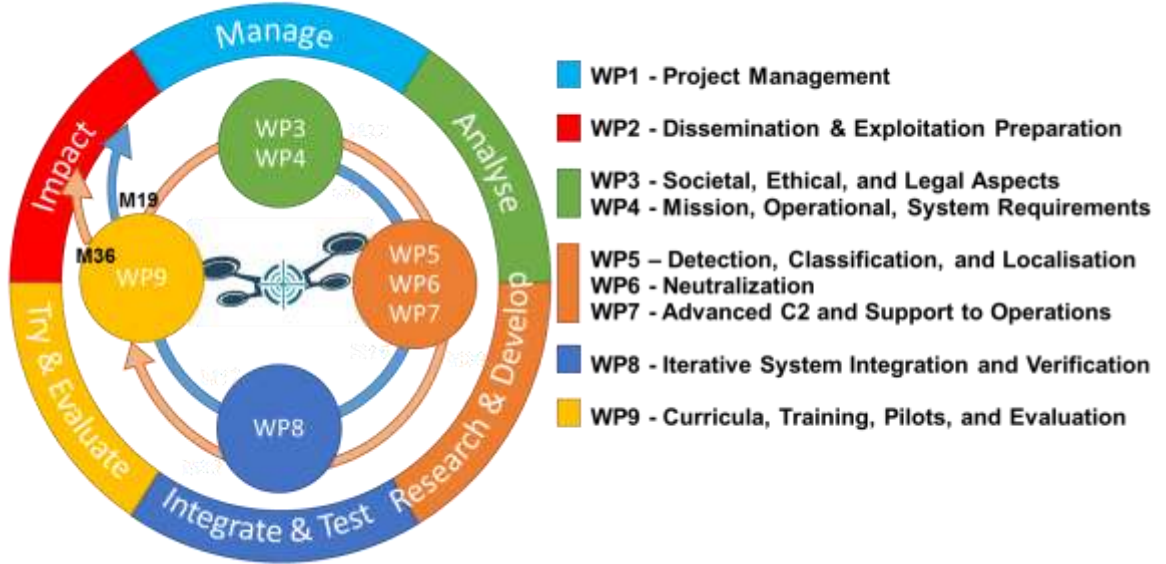
Other objectives:

- ➔ To assess
 - › Relevant technology & Threat trends
 - › Regulations & Societal, Ethical and Legal (SoEL) frameworks
- ➔ To develop new knowledge for LEAs & Infrastructure designers, constructors, and operators
 - › Through Innovative Curricula

ALADDIN PROJECT OVERALL SCHEDULE

- ➔ 2 Cycles / Iterations
 - › 9 Work Packages
 - › 37 Tasks
 - › 6 Milestones
 - › 90 Deliverables

➔ Overall system aiming TRL6 – some sub-systems up to TRL7



2017				2018								2019								2020															
Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Year 1												Year 2												Year 3											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Project management, Dissemination, SoEL, EC report, etc												Project management, Dissemination, SoEL, EC report, etc																							
Reqs / System definition												Refinement																							
System Development - Beta version												System Development - Final version																							
Evaluation plan				Pilots (Exp) prep								Pilots (Exp) prep																							
On site evaluation												On site evaluation												On site evaluation Report											
Initial requirements System definition												Beta Release				End of beta evaluation				Revised requirements & system definition				Final release				End of final evaluation End of the project							

TARGET AUDIENCE

The target audience consists of **two major end-user groups** at National, European and International level:

- › Law Enforcement Agencies & Competent Authorities
- › The Critical Infrastructure security planners and operators

➔ Law Enforcement Agencies (LEAs)

- › National/Civil Police
- › Land Border Guards
- › Coast Guards

➔ Competent Authorities and Agencies

- › Civil Aviation Authority (CAA)
- › Ministries of Defence (MOD)
- › Ministries of Transport (MOT)
- › Ministries for Marines Policy (MOM)

➔ Critical Infrastructure Planners & Operators

- › Governmental Facilities (Parliaments, Ministries, Prisons, etc)
- › Transportation (Airports, Rail, Ports, Roads, ...)
- › Energy & Environment (Nuclear, Electricity, Gas, Water, etc)
- › Events and sport installations.
- › Health & Emergency Services
- › Financial Services
- › Information & Communication Technology

