# MBARC-02
# Practical Model Based Systems Engineering
# with ARCADIA method and Capella tool – 3 Days
# Agenda

contact@samares-engineering.com
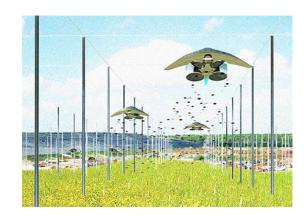
- Learn practical MBSE approach from requirements to architecture down to execution platform
  - Based ISO 15288:2015 technical processes
  - Using ARCADIA method for system global definition (requirements and architecture)

- Case study for practice
  - UAV for agriculture as System of Interest
  - Initial requirements from DOORS or Excel
  - Exercises on case study
  - Use of Capella tool for practice

# Requisites for attendees

- First knowledge on Requirement Engineering
  - Good quality: Single goal, affordable, verifiable, …
  - « System shall… »

# Module 1 - Introduction

- The fundamentals of Systems Engineering

- Model-Based Systems Engineering

- Overview of ISO 15288:2015

- ARCADIA method

- Hands on Capella tool

- Case Study presentation

- Glossary of Terms

- Relation between OA layer and standard processes

- OA models and diagrams in CAPELLA

- OA Best practices

- Practical work: Operational Analysis on UAV Agri case study

# Module 3 - Systems Analysis

- Glossary of Terms

- Relation between SA layer and standard processes

- SA models and diagrams in CAPELLA

- SA Best practices

- Practical work: System Analysis on UAV Agri case study

- Glossary of Terms

- Relation between LA/PA layers and standard processes

- LA models and diagrams in CAPELLA

- LA Best practices

- Practical work: Logical Architecture on UAV Agri case study

- Glossary of Terms

- PA models and diagrams in CAPELLA

- PA Best practices

- Practical work: Physical Architecture on UAV Agri case study

- Capella advanced features
  - Replicable Elements
  - Library Management

- Viewpoints & extensions
  - Viewpoint management
  - System To Subsystem Transition
  - xHTML documentation generation
  - PVMT
  - Requirements Viewpoint
  - M2Doc introduction

- More extensions and conclusion