

T-Minus Engineering

New possibilities for innovative rocket technology in the defence domain



Introduction

- Company profile
- DART
- BMD DART
- RocketDrone



Company profile

- Located in Delft
- YES!Delft business incubation centre
- Established in 2011



BUILDING TOMORROW'S LEADING FIRM
INSPIRATION | EDUCATION | INCUBATION | GROWTH

Portfolio and Core business

- Development of rocket systems
 - All subsystems
 - (Solid) rocket motors
 - Structures and mechanisms
 - Flight computers
 - Operations
- (Space) engineering services
- Custom engineering



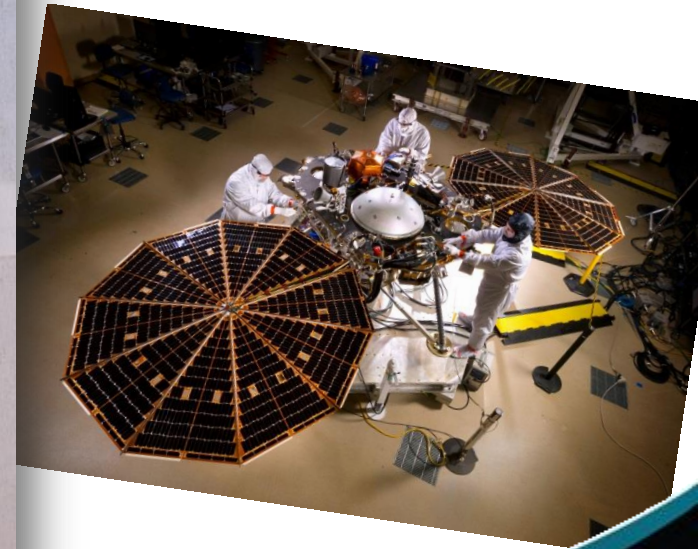
Space engineering services

NASA/DLR - InSight mission

- *Assembly/integration of prototypes and flight models*
- *Qualification- and development testing (with JPL & DLR)*
- *Design feedback*

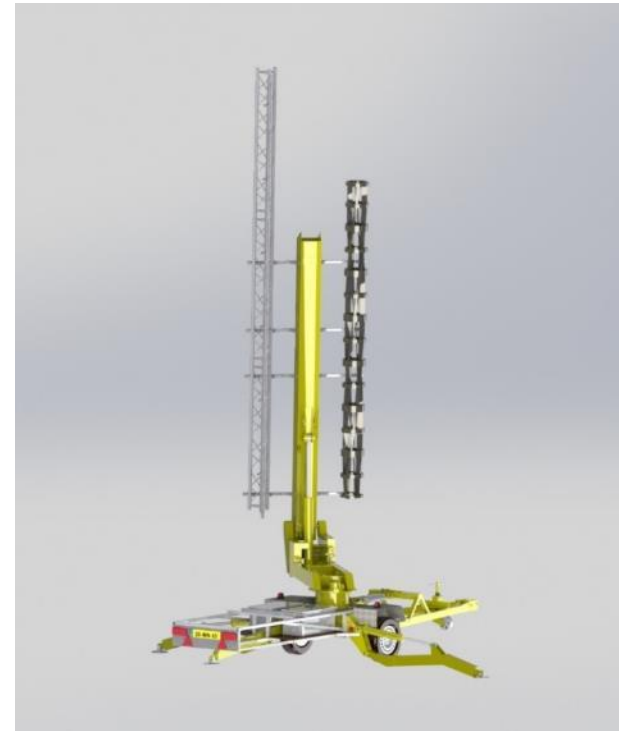
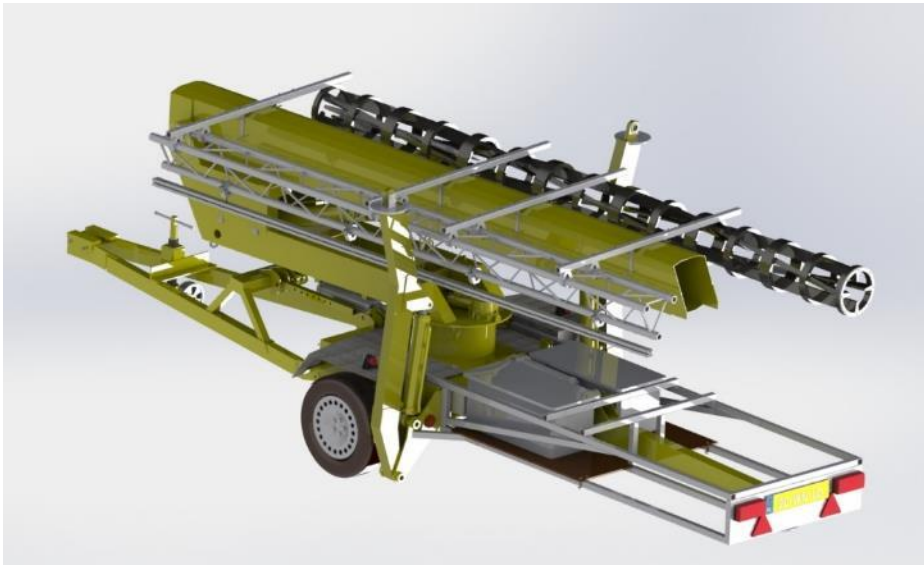


InSight

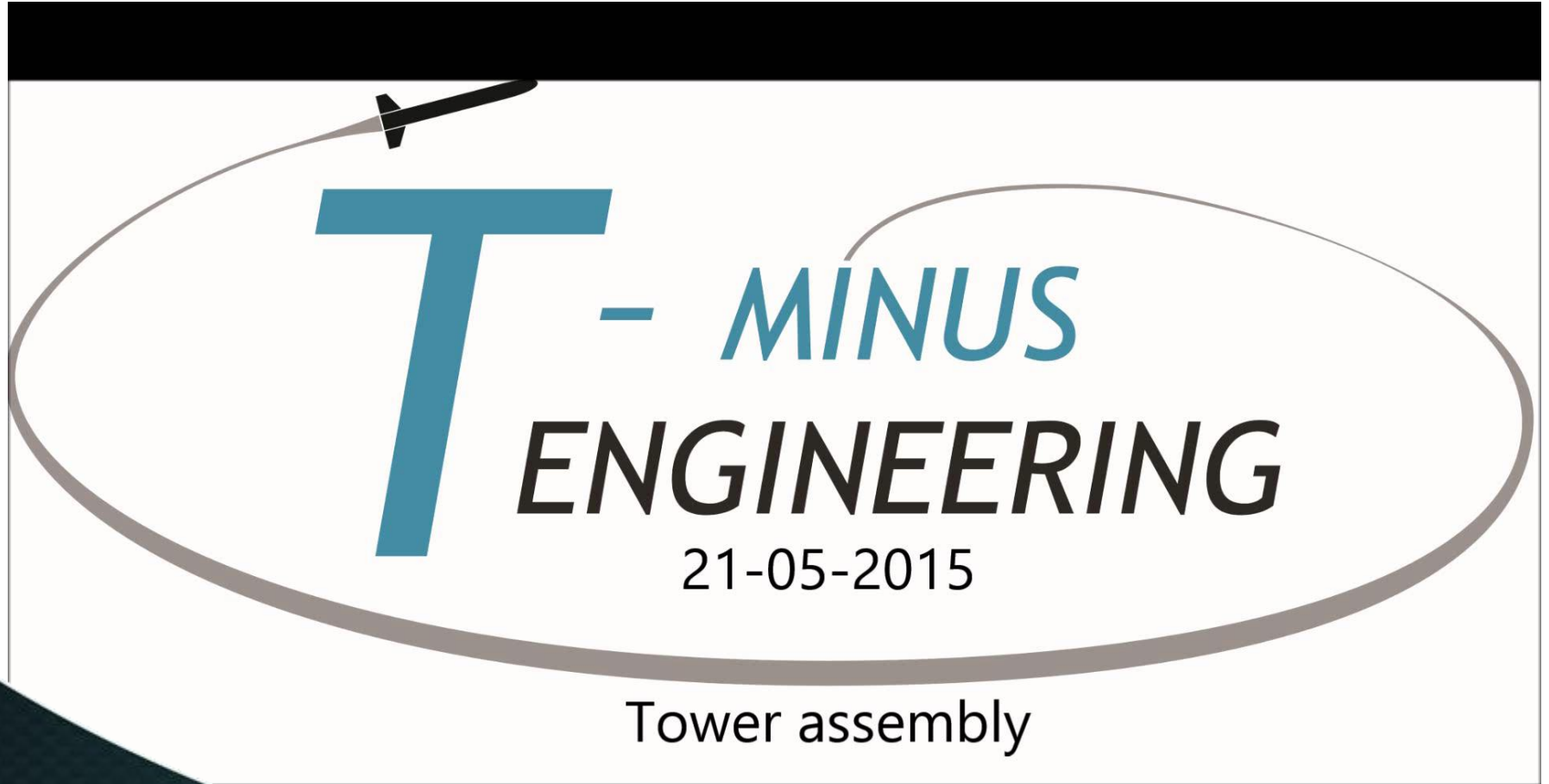


T-Minus launch infrastructure

- *Road mobile and autonomous*
- *Easily deployable*
- *Compatible with multiple rocket systems*



T-Minus launch infrastructure



21-05-2015

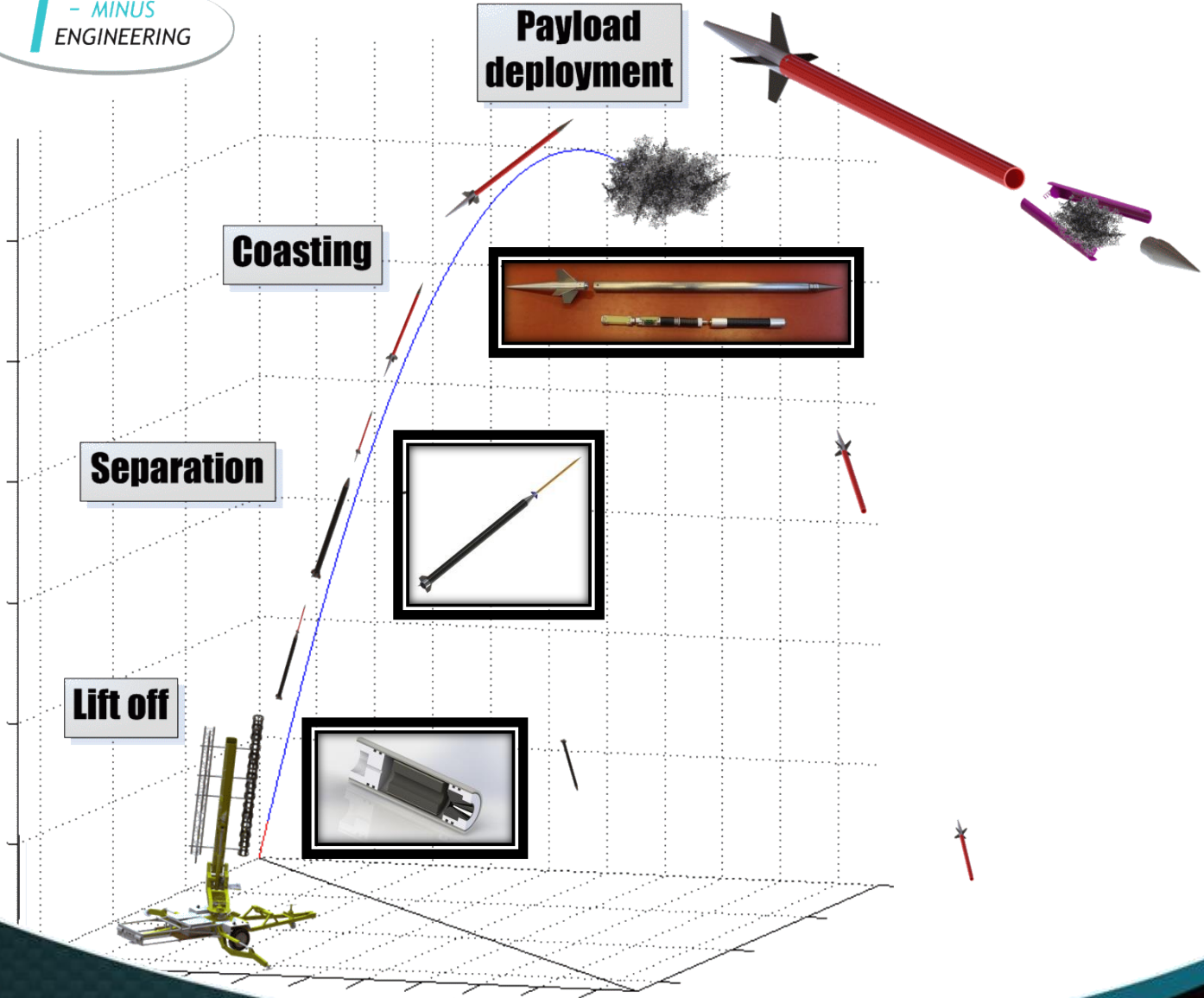
Tower assembly

Rocket systems

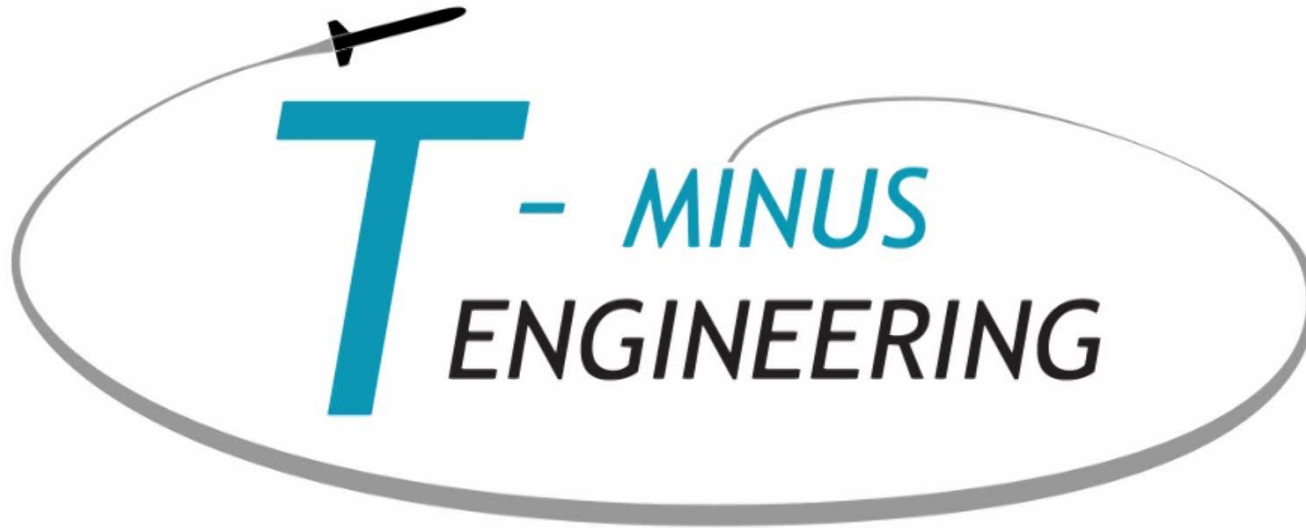
T-Minus DART

Cost-effective system for performing in-situ experiments in the highest layers of the atmosphere

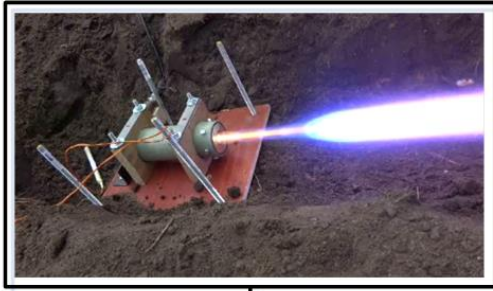




Second test flight

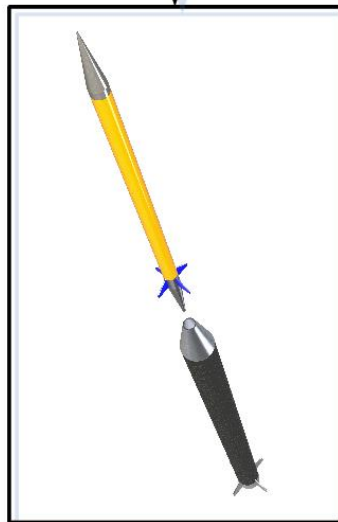


ENGINEERING FOOTAGE
TV-02 Ground videos

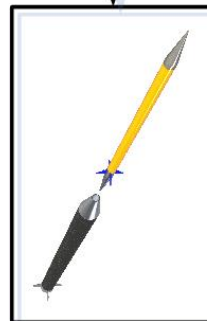


Product spin-offs

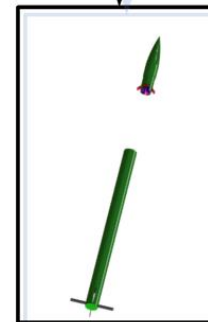
Based on common technology



Sounding rocketry



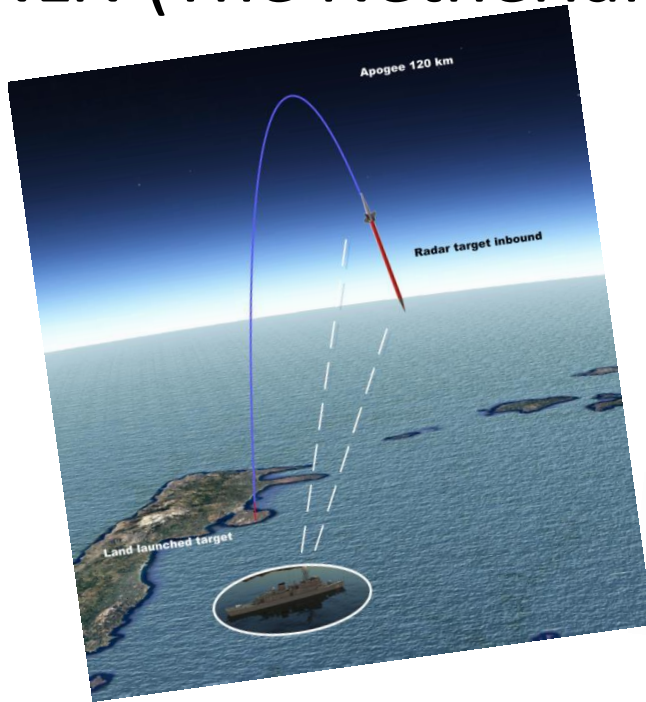
BMD training DART



RocketDrone

BMD training dart

RNLN (The Netherlands Royal Navy)

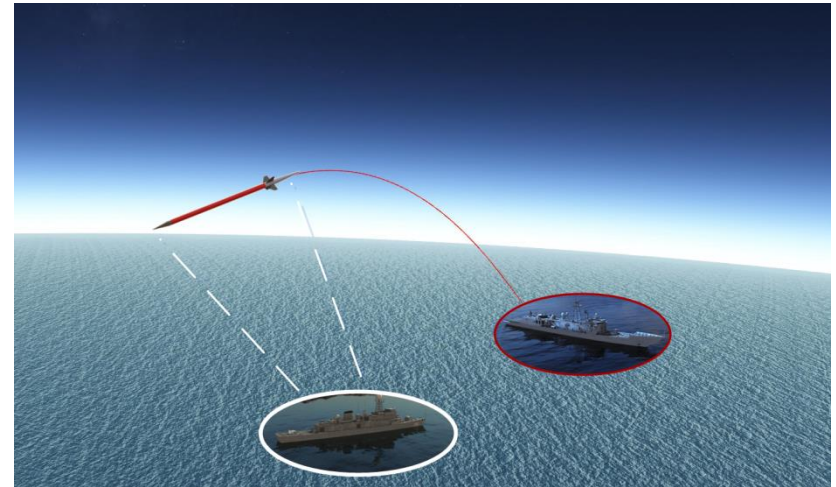
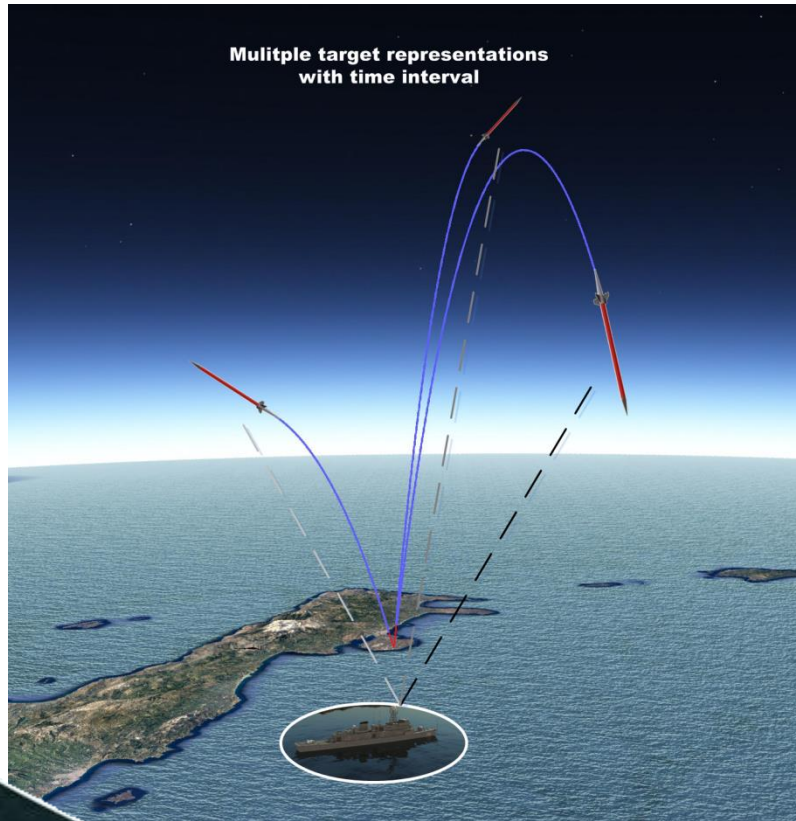


SMART-L radar

THALES

BMD Training, RADAR training and validation

BMD training dart

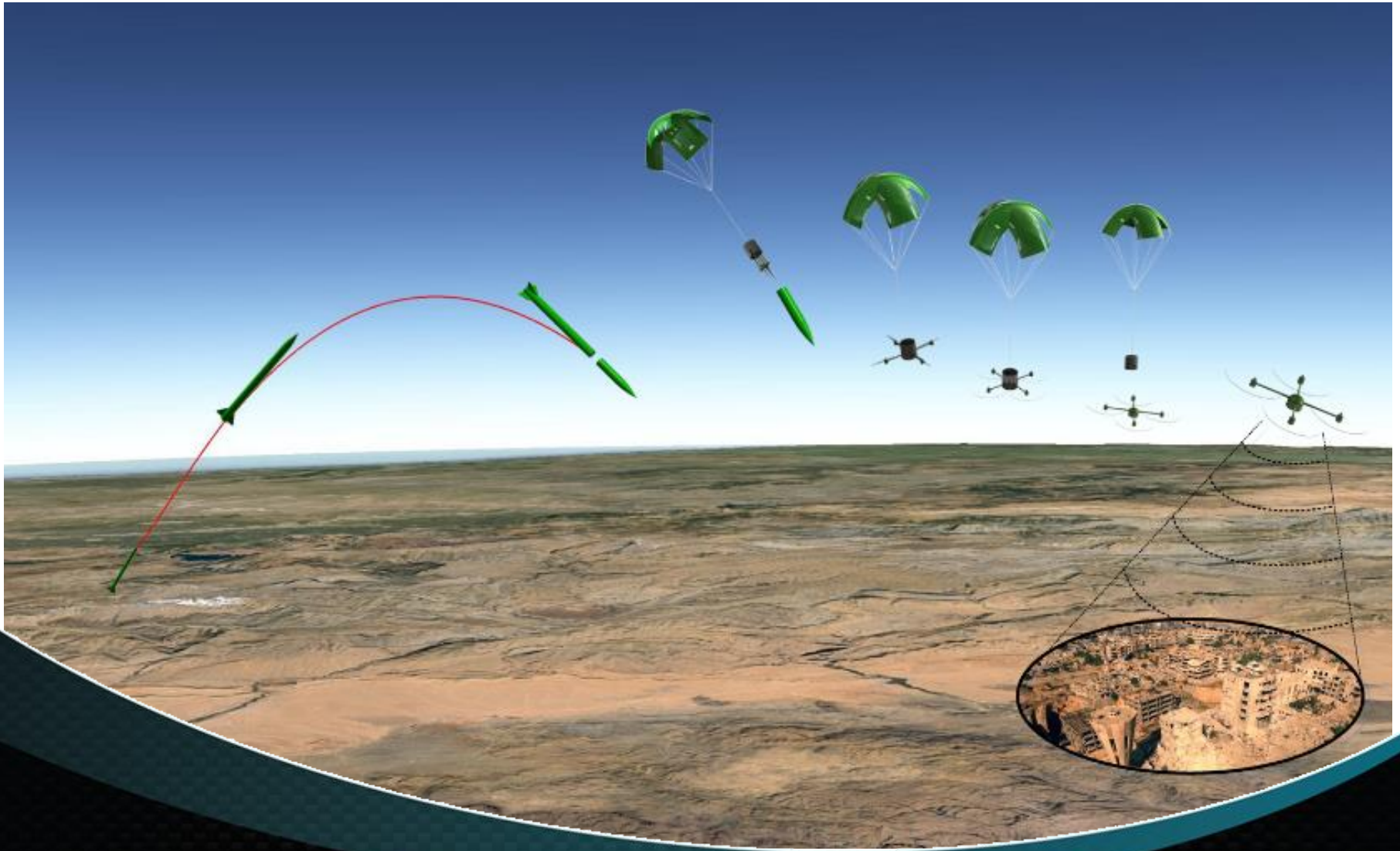


RocketDrone

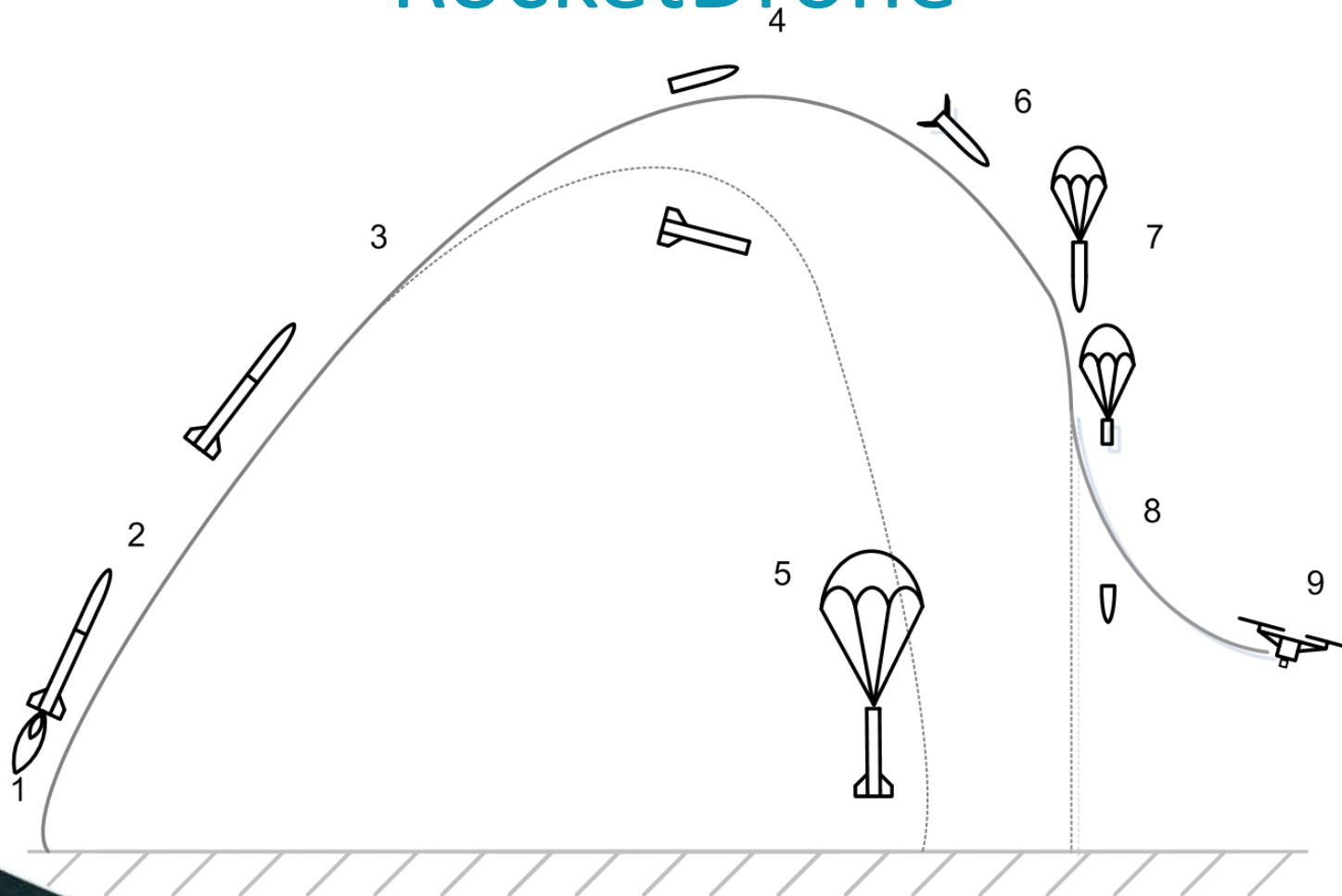
- Rocket deployed quadcopter
- Product for **very fast situational awareness** at **long distances** with **hover capability** and **perch and stare**
- Rapid response compared to normal UAV's (extreme low time before eyes on target)
- Strong interest shown by the Dutch Armed Forces (NTP proposal submitted together with Delft Dynamics)



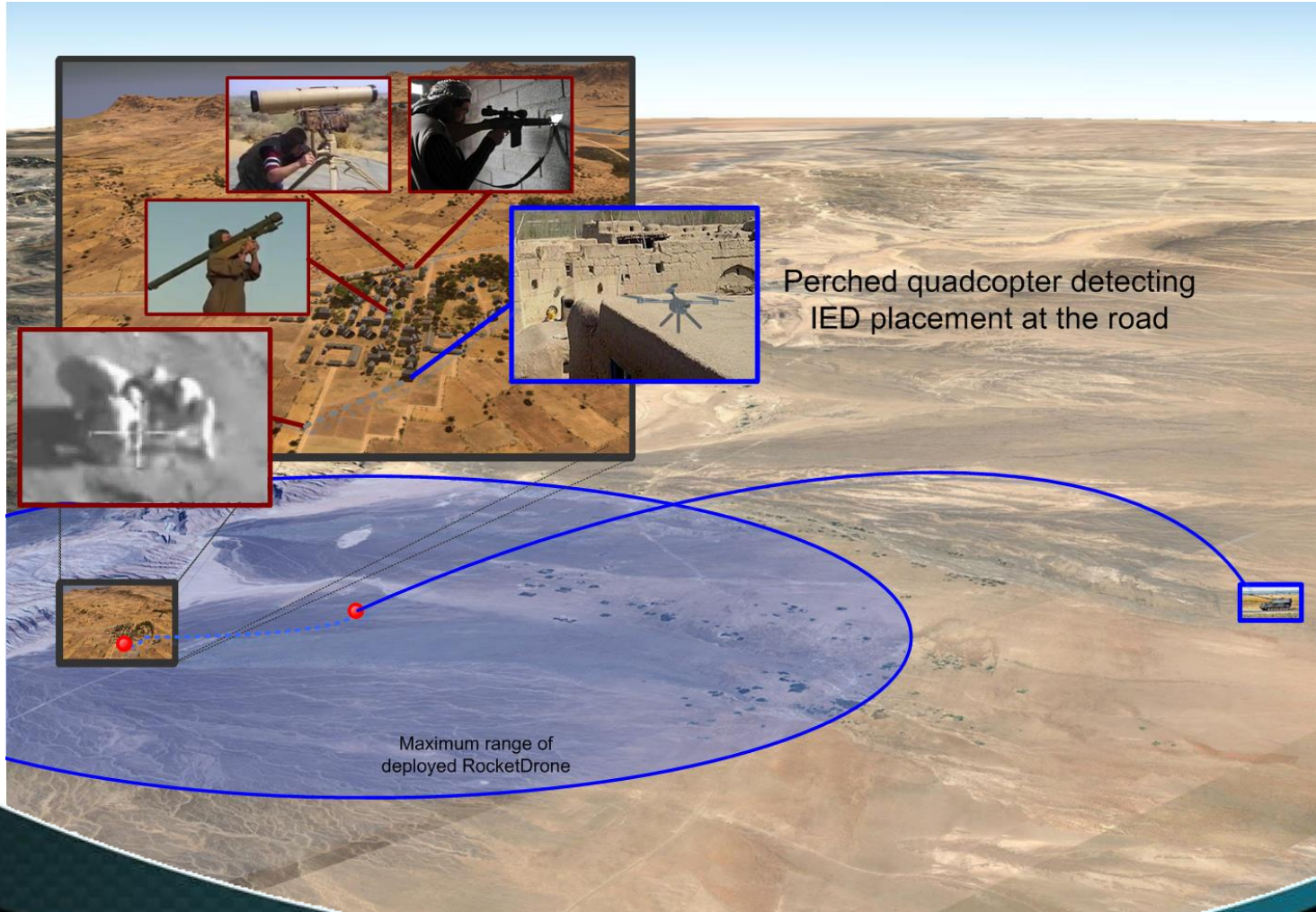
RocketDrone



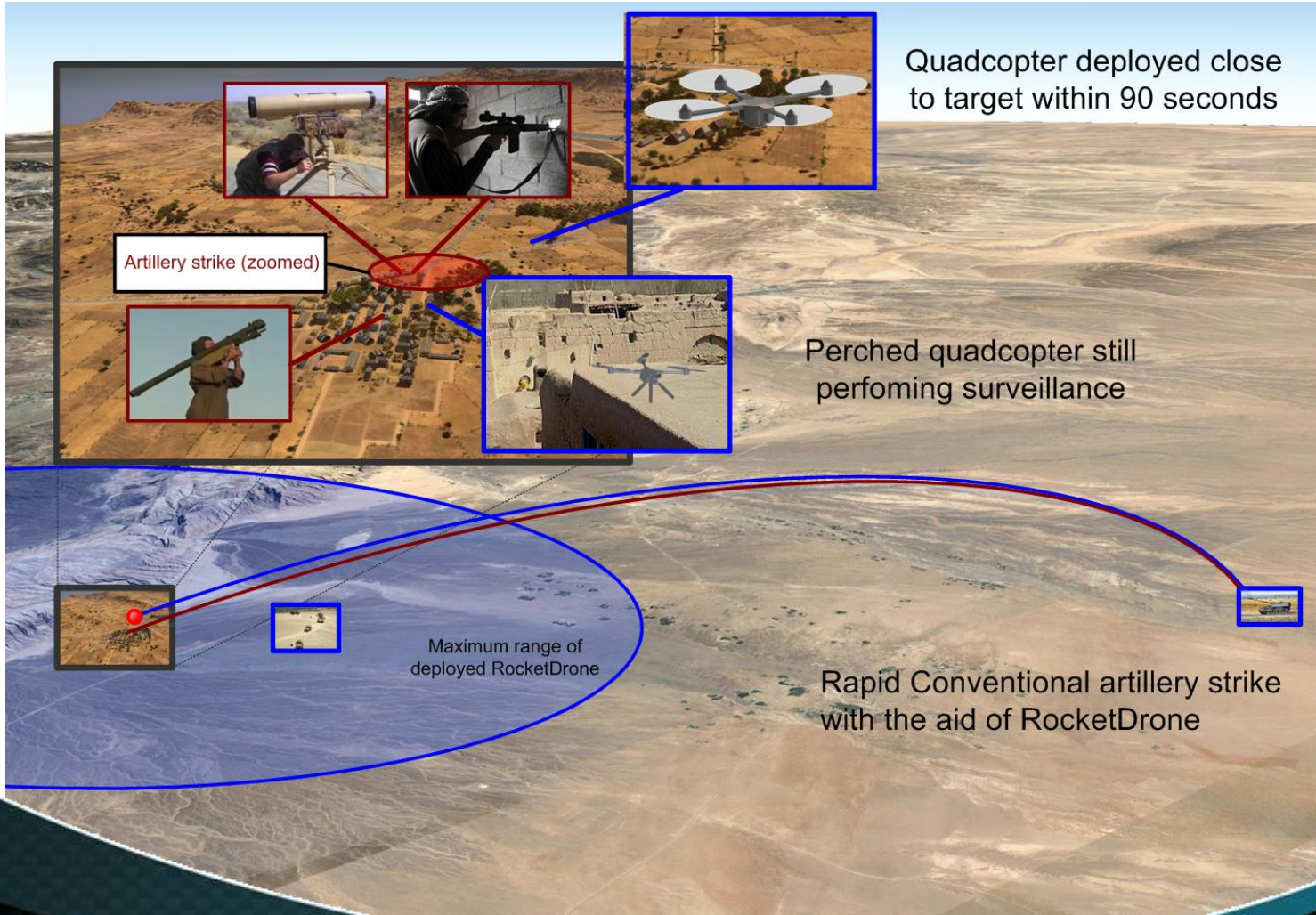
RocketDrone



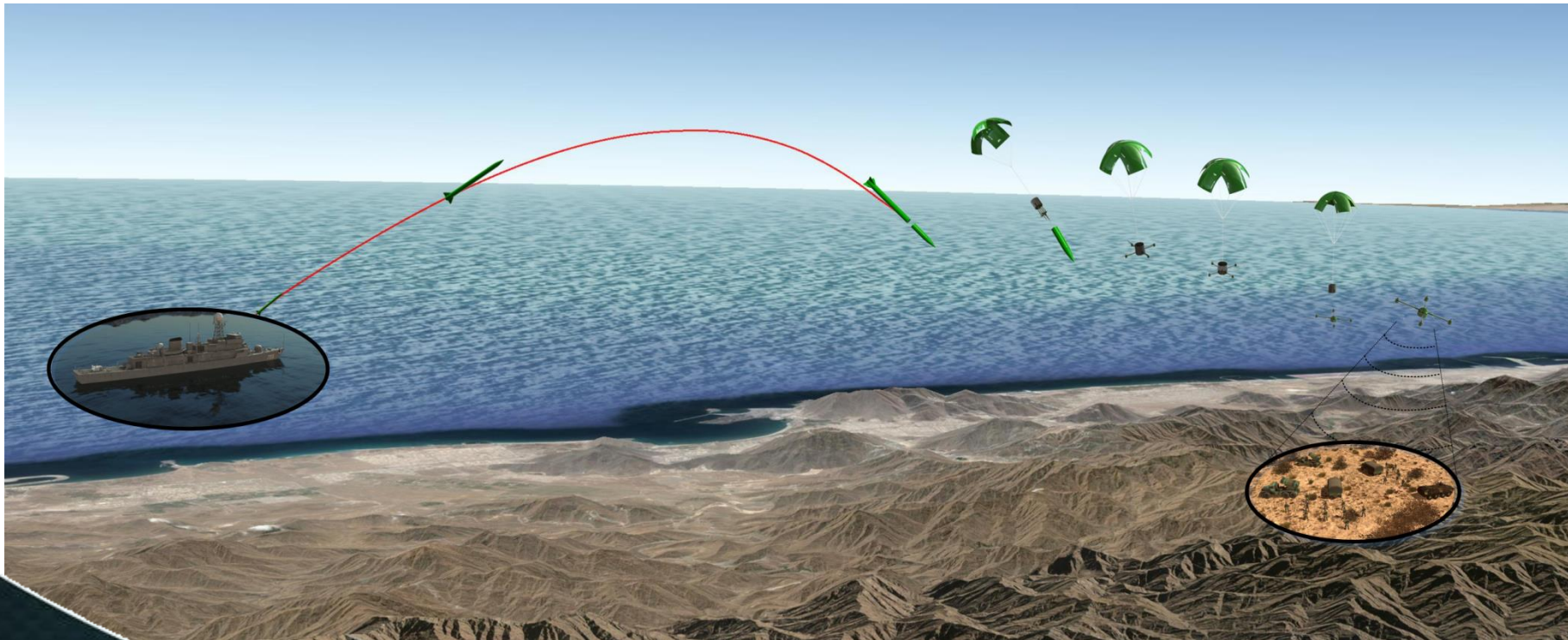
RocketDrone



RocketDrone



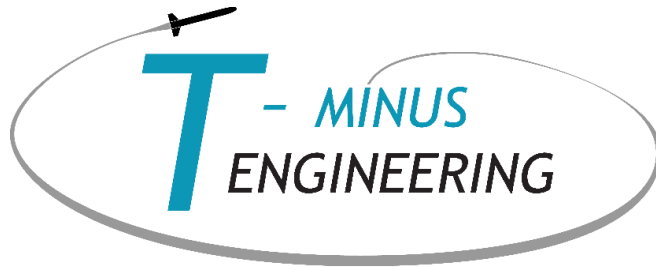
RocketDrone



RocketDrone

- NTP proposal submitted together with **DelftDynamics**
- Proof-of-concept flights for Dutch Armed Forces (if NTP is granted)

Questions



Launch to **Excellence**

