

CBRN UNMANNED GROUND SYSTEM

TECHNICAL SPECIFICATIONS

Technical Specifications - Base vehicle + CBRN Mission Module +Gripper + Manipulator Arm

Gross Vehicle Weight	17.000	kg
Maximum speed	Limited to 30	km/h
Length	7,2	m
Width	2,3	m
Height	2,9	m
Ground clearance	0,34	m

Technical Specifications – Front exchangeable tool Blade/Gripper

Width	2,3	m
Height	0,94	m
Length	1,35-1,9	m
Weight	1200	kg
Claws opening	1,8	m
Rotation	360	°
Blade pushing capacity	10	t
Max. Lift Capacity	2.000	kg

Technical Specifications - Rear exchangeable tool Manipulator Arm

Max. Lifting Capacity	990	kg
Max. outreach	4	m



R&TTE Directive 1999/5/EC, EMC Directive 2004/108/EC, Low Voltage Directive 2006/95/EC, Machinery Directive 2006/42/EC
Other references: IMAS 09.50, CWA 15044:2009, CWA 15832:2008

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CBRN Mission Module

1. Decontamination

Decontamination of objects
(by the robotic arm)
Decontamination of personnel
(decontamination shower)
Decontamination of surfaces
(front tool attachment)
Partial self-decontamination
(nozzles distributed on the
robotic system)

2. Sensor bundle

CRN detection modules,
Temperature, oxygen and
explosive gasses sensors,
lidar, MET station

3. Sample collection

Automated sample collection
of solid state, gas and liquid
samples

Remote Control System

Data Link

Operating distance LOS Up to 1500m

NEXT GEN CBRN UNMANNED GROUND SYSTEM



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DON'T SEND A MAN
TO DO A MACHINE'S JOB

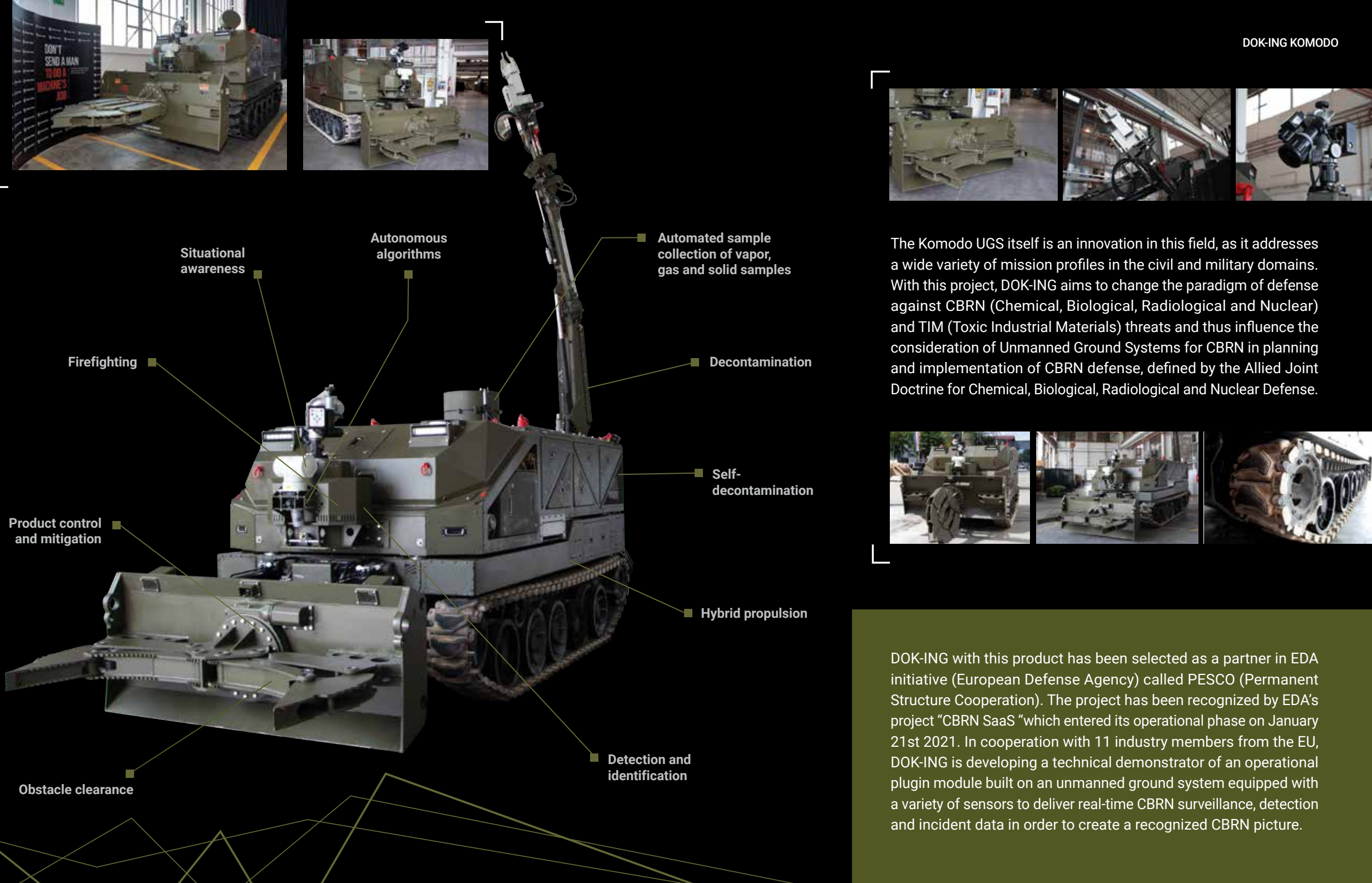
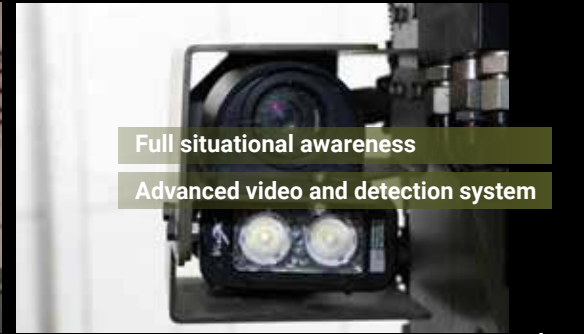
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DOK-ING's new innovative robotic system Komodo

presents a unique unmanned ground system that can operate in extreme chemical, biological, radiological and nuclear (CBRN) conditions. Co-financed by ESIF (European Structural and Investment Fund), as a dual-use asset, the UGS is designed to operate in extreme conditions hazardous to intervention teams with the following key capabilities:

- Hybrid propulsion system able to operate in extreme conditions such as low oxygen and high temperature
- Reconnaissance and situational awareness mission profile with a wide variety of sensors and detectors and advanced video system
- Chemical, Biological and Radiological (CBR) decontamination of vertical and horizontal objects, combat and non-combat equipment, as well as partial self-decontamination
- Sample collection of vapor, liquid and solid-state samples
- Product control and mitigation with different types of front and rear exchangeable tools.

The robotic system will have following key capabilities:



The Komodo UGS itself is an innovation in this field, as it addresses a wide variety of mission profiles in the civil and military domains. With this project, DOK-ING aims to change the paradigm of defense against CBRN (Chemical, Biological, Radiological and Nuclear) and TIM (Toxic Industrial Materials) threats and thus influence the consideration of Unmanned Ground Systems for CBRN in planning and implementation of CBRN defense, defined by the Allied Joint Doctrine for Chemical, Biological, Radiological and Nuclear Defense.



DOK-ING with this product has been selected as a partner in EDA initiative (European Defense Agency) called PESCO (Permanent Structure Cooperation). The project has been recognized by EDA's project "CBRN SaaS" which entered its operational phase on January 21st 2021. In cooperation with 11 industry members from the EU, DOK-ING is developing a technical demonstrator of an operational plugin module built on an unmanned ground system equipped with a variety of sensors to deliver real-time CBRN surveillance, detection and incident data in order to create a recognized CBRN picture.