

CBRUGS

Chemical, Biological and Radiological Unattended Ground Sensors for the **Finnish Defence Forces**



Environics
– supplier of
CBRUGS
system

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- Major Mikko Elo, the Finnish Defence Forces

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Structure of the CBRUGS Sensor Field (Picture. 1.)

“With field deployable unattended ground sensor system (CBRUGS) situational awareness, required in defence forces actions, can be increased. Field deployable ground sensors are also suitable for supporting other authorities and international crisis management operations.”

*–Major Mikko Elo,
the Finnish Defence Forces*

KEY FEATURES

- Fast field deployment
- Real-time CBRN situational awareness
- Complete unattended CBRN detection system
- High-end system software
- Intuitive user interface
- Scalable system
- Comprehensive reporting features
- Optional simulation tools for training

CBRUGS System

CBRUGS system detects hazardous gases (TICs and CWAs), airborne biological agents and radiation. It includes two main components, a field deployable CBRN measuring unit and Command and Control Post completed with radio communication system. The whole CBRUGS is structured by several sensor fields (see picture 1.), each formed by a number of main components. The CBRUGS is a networkable and transportable system that can be taken to the sites, wherever and whenever the detection capabilities are needed.

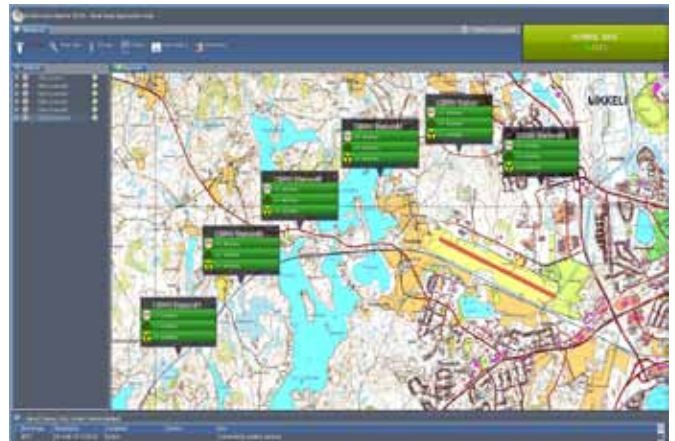
CBRUGS Measuring Unit

The measuring Unit is based on Environics' state-of-the-art products, the ChemProDM for chemical detection, the ENVI BioScout for bioaerosol detection and collection and Field Master Module with a built-in GPS for data processing. The integrated weather sensor, the radiation detector and the DC power supply are provided by 3rd parties. The Measuring Unit communicates with the Command and Control Post via a radio link giving accurate real-time information for command and consequence management. (See picture 3.).

Command & Control Post

CBRUGS Command and Control Post is based on Environics' EnviScreen CBRN Monitoring software and hardware solutions. As an intuitive user interface, the EnviScreen Operix software provides real-time situational awareness in the form of measurement and event data collected from the integrated Measuring Units. With the clear emergency instructions, it also guides the operators to take appropriate countermeasures at the time of a suspected threat event.

The EnviScreen Operix is featured with an optional simulation tool that facilitates the training of the system software and maintains the user's competence and skills for threat situation management.



EnviScreen Operix: Real-time Operation Tool Interface Figure Drawing example. (Picture 2.)



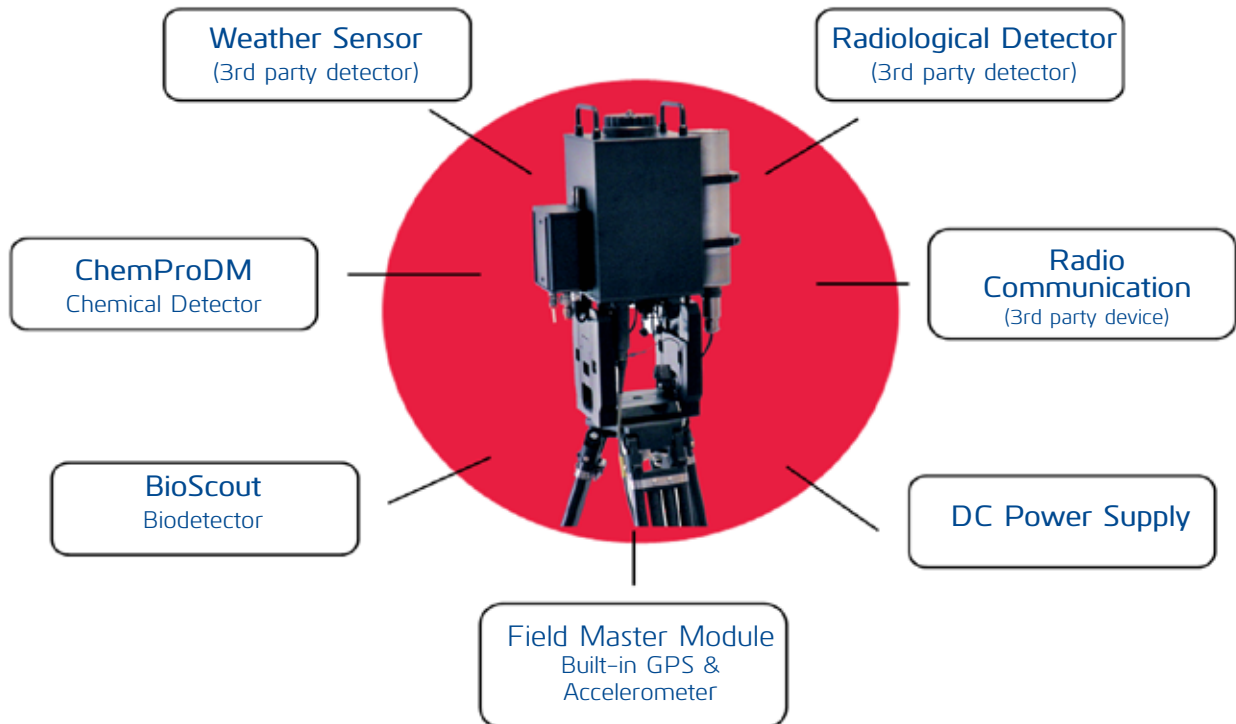
CBRUGS System Structure

CBRN Measuring Unit

Features	Field deployable Unattended
Chemical Detection	ChemProDM (CWA + TIC)
Biological Detection	ENVI BioScout with sample collector
Radiological Detection	Gamma (3rd party product)
Data Processing	Field Master Module
Other components	Radio communication system Weather Sensor DC Power Supply (3rd party products)

Command & Control Post

Software	EnviScreen Operix System Software
Hardware	3rd Party System hardware
Radio communication system	3rd Party Product



Structure of the CBRUGS Measuring Unit (Picture. 3.)

