



2018

TECHNOLOGY AT THE SERVICE OF CRISIS MANAGEMENT OPERATIONS



FINLAND HAS A LONGSTANDING TRADITION IN PEACEKEEPING AND INTERNATIONAL CRISIS MANAGEMENT.

Since the Suez crisis in 1956, Finland has participated in over 40 peacekeeping or crisis management operations, with a total amount of 43,000 men and women. This experience has created a pool of expertise on crisis management issues amongst the public and private sectors, academia and civil society.

INNOVATION AND TECHNOLOGY FOR IMPROVED OPERATIONS

Innovations and technology are key elements to improve peace operations' effectiveness, safety and security as well as to mitigate their negative environmental impact. For harnessing the potential of technological and social innovations, Finland promotes close collaboration between public authorities, civil society and the private sector.



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omprendum Ltd

**CRISIS MANAGEMENT
REQUIRES BEST
POSSIBLE AND
COOPERATIVE
SOLUTIONS BY
INNOVATIVE
ENTERPRISES AND
OTHER ACTORS
TOGETHER.**



ResCamp Modules
Fostering Recovery

COMPRENDUM LTD

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www.comprendum.com

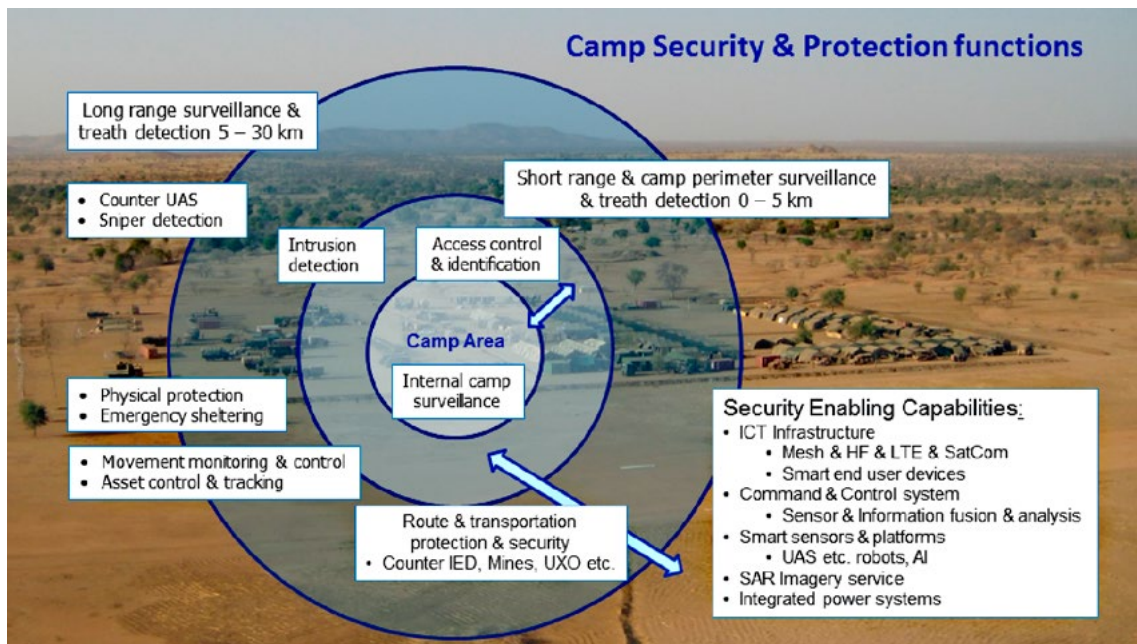


We develop and provide new models, concepts and solutions and ensure interoperability, modularity, scalability and flexibility using integrated innovations. Comprendum and our global network of experts have needed special experience, expertise and knowledge.

Our **ResCamp Modules™** system fosters recovery by providing camp and

infrastructure solutions to support crisis management, disaster relief and humanitarian assistance.

ResCamp Modules™ uses sustainable, modern technology for shelter, housing, energy, water, catering, waste management, medical aid, protection and security, communication, transportation and information collection and management.



ResCamp Modules™ solutions are tailored also for upgrading existing infrastructures and camps. Designed together with the customer, we use best tested available COTS innovations. Training, operation and lifecycle support can also be offered.



Together with Senop Oy and several other partner companies we develop an **Integrated Protection Suite** for camp and site protection serving crisis management operations as well as organisations operating in crisis areas.

Our scalable and modular **RCM-i2 Protect** solutions are tailored to threats and needs including following main functions:

- Long Range Threat Detection & Early Warning (LRTD)
- Short Range and Camp Perimeter Surveillance and Lighting (SRS�)
- Camp and Personnel Protection Solutions (CPPS)
- Camp Security and Sensor Control (CS&SC)
- Security Enabling Capabilities (SEC)

Other deployable **RCM-i2 Solutions** are: bases for rescue operations, hospitals, pop-up health stations (to UNOPS ITB/2017/1138 medical requirements) and temporary training and school facilities.

ResCamp Modules
Fostering Recovery

Intlog Oy **SENOP**

teuvan
DEFENCE

BASELIGHT
PRIME DESIGN SWEDEN

LAUREA
UNIVERSITY OF APPLIED SCIENCES

Together we are stronger

KT-SHELTER

Hala Oy

MILITARYWORK



Tespack

SOLAR WATER SOLUTIONS

PARTNERS

WE MAKE SPACE SOLUTIONS



THE WORLD'S DEVELOPMENT AND THE NEEDS OF PORTABLE SPACE WILL GROW AT AN ACCELERATING PACE

OUR VISION

The world needs new logistically cost-effective solutions.

■ We are in the logistics of moving premises at the forefront of international development

Solutions must be suitable for a variety of purposes.

■ We offer advanced and customer-oriented space solutions

Intlog Oy's goal is to produce innovative and high quality products for this need.

■ Our values guide and shape the organization culture that affects strategic know-how

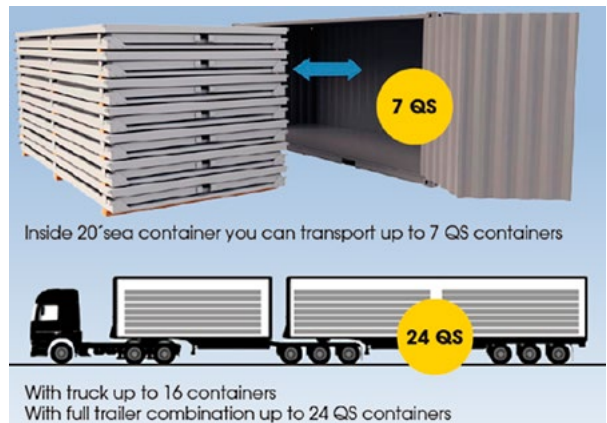
Intlog Oy wants to be at the forefront of development.

■ Our solution enables us to improve living conditions in different parts of the world

INTLOG OY

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IntLog Oy



Hand Sanitizer

- **Effective against the top 5 multi drug resistant pathogen (2017 update)¹**
- **Kills 99,99% of germs and viruses²**
- **Alcohol-free**
- **Hypoallergenic³**
- **Provides long-lasting protection**

NET WEIGHT
50 ml (1.7 fl oz)

Good hand hygiene practice plays important role in military environment where benefits such as reduced healthcare costs, decreased absenteeism and improved mission readiness can be gained.

IntLog Hand Sanitizer Foam provides effective way to sanitize hands without compromising healthy skin. The foam can be applied even for broken skin without painful sting, improving compliance to any hand hygiene regime.

The product has been proven effective by third-party laboratories with superior functionality against drug resistant microbes. IntLog Hand Sanitizer Foam is based on the Nolla™ silver polymer technology.

Comparison table of active ingredients in hand sanitizers

	IntLog Hand Sanitizer Foam	Alcohol Based Gel
Approved for use	✓	✓
Effective against bacteria	✓	✓
Effective against viruses	✓	✗
Instant efficacy	✓	✓
Extended efficacy	✓	✗
Hypoallergenic	✓	✗
Convenience of use	✓	✗
Cost effectiveness	✓	✗

¹ Active ingredient has been successfully tested in vitro against WHO's priority pathogens (top 5) that are resistant to widely used antimicrobial agents (Lowe-Davies and Bennett, WHO publishes list of bacteria for which new antibiotics are urgently needed, 2017, WHO official webpage).

² Tested effective in vivo according to EN1500 standard and screened effective in vitro against viruses such as coronavirus and norovirus.

³ Active ingredient has been successfully tested hypoallergenic and non-sensitizing in vivo according to HRIPT standard with a panel of 50 volunteers.

USE BIOCIDES SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE.

KEY BENEFITS:

Effectiveness

Efficacy has been tested by multiple third-party laboratories in Europe and USA. Proven effective against multi drug resistant microbes such as vancomycin-resistant *Enterococcus faecium* (VRE) and methicillin-resistant *Staphylococcus aureus* (MRSA). Successfully tested according to industry standard protocol EN1500. Proven effective against coronavirus and norovirus.

Active substance	Tradename	Application volume (ml)	Content in hand sanitizer (% v/v)	Cost per 100 applications (EUR)
Ethanol	Various	6	60	0,47
Silver Chloride	Nolla BG	2,2	2	0,30

Safety

IntLog foam is absolutely safe to use which has been demonstrated in independent lab tests. The product is formulated to minimise the risk of allergy in normal use conditions. The foam does not dry the hands but leaves them soft and clean. The use is convenient even if the skin is damaged contrary to alcohol-based gels.

Active ingredient

SILVER CHLORIDE 0.02% (w/w)

Regulations

The active ingredient of this product is silver chloride 0.02% (w/w) which is currently approved for disinfectants and algacides not intended for direct application to humans or animals (PT2) in EU according to BPR 528/2012.

Packaging

50 ml (1.7 fl oz) travel-size foamer bottle – At least 23 applications per product

2000 ml (67.3 fl oz) tabletop foamer bottle – At least 909 applications per product



SENOP



SENOP - MASTER OF HARSH CONDITIONS



SENOP OY

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Senop Oy is a forerunner in situational awareness by providing advanced sensor solutions and system platforms. Senop Oy is a part of Patria Group.

Senop Integration designs, develops and manufactures demanding shelter based control and communication system integration and equipment for Defence & Security. The ARCTIC FOX is a multipurpose shelter system designed to be used for C2

command posts, C4I shelters and platform for EW systems.

Senop Optronics provides HUSKY night vision devices, including high-performance image intensifiers, night sights, thermal imagers, target acquisition and observation systems and hand-held/UAV/UGV Hyperspectral cameras. Senop implements the latest sensor technology by providing repair, modernization and MLU services.

SENOP CONCEPT

CAMP THREAT DETECTION AND SURVEILLANCE



Mast and antenna systems



System Integration Services



Senop hyperspectral imager



Senop LILLY Multipurpose Observation and Surveillance system



Perimeter surveillance imager



Senop VVLITE Goggle



Senop VV2000 Night Vision Sight



Communication, Monitoring and Control Systems

READY SYSTEM PLATFORM

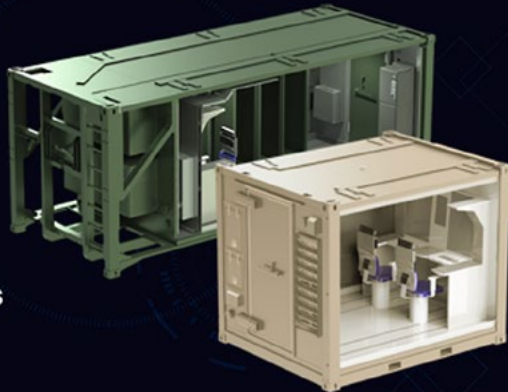
HEATING, VENTILATION
AND AIR CONDITIONING
SYSTEM

ELECTRIC POWER
ENTRY AND
DISTRIBUTION SYSTEM

ASSEMBLY INTERFACES
FOR CUSTOMER
EQUIPMENT

AVAILABLE FROM
SMALL CABINETS UP
TO 20FT CONTAINERS

SYSTEM OPERATING
TEMPERATURE RANGE
-40°C TO +55°C



ARCTIC FOX

SAFE

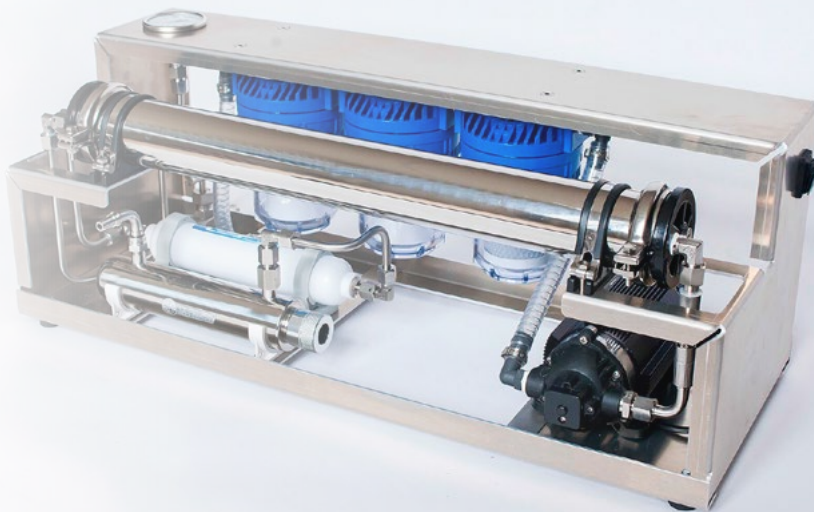
MOBILE

AGILE

VERIFIED TO MEET
MIL-STD- 810 & 461

CE APPROVED

SENOP



CLEAN DRINKING WATER USING FREE SOLAR ENERGY

World's greenest water treatment solutions with zero CO2 emissions.

We provide sustainable and economically efficient decentralized water purification and desalination products. You can produce clean high-quality drinking water from seawater, lakes, rivers and boreholes using 100% solar energy. With our solution, you become completely independent from external water supplies in remote locations.

Our SolarRO stand-alone units operate with renewable energy, without batteries or energy storage. Ultimately we aim to

replace all polluting and noisy diesel generators with solar power in off-grid desalination.

PRODUCE YOUR OWN DRINKING WATER LOCALLY.

With SolarRO system affordable water can be produced locally with zero running costs.

Capacity range from 1m³ up to 500m³ per day. Mobile and scalable SolarRO units are easy to install and operate with low maintenance. No adjustments needed. The water purification system can start, operate and stop automatically.

SOLAR WATER SOLUTIONS LTD.

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CEO

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www.solarwatersolutions.fi



MOBILE KITCHENS FOR RAPID DEPLOYMENT IN ALL ENVIRONMENTS

Catering and kitchen equipment for professional use in peacekeeping operations worldwide, for host nation's support and disaster relief.

Light and portable cookers in unit sizes 20 to 100 persons. Ultra-light trailer mounted kitchens in unit sizes 50 to 500 persons. Also container kitchens and contract manufacturing of special components, products and subsystems.

Light and robust equipment. Diesel operated with multi-fuel (solid fuel and/or LPG) capability. High capacity and efficiency. Dependability in terms of operation and hygiene and of course respecting

the cultural and culinary requirements!

Trailer mounted kitchen system – a versatile fully equipped field kitchen with extreme mobility and virtually zero deployment time and integrated weather and visibility protection. The lightest in its class, weight only 1600kg. Can be towed with any vehicle. Based on standard components. Can be extended with storage/refrigerator trailer.

TEUVAN DEFENCE – TEUVAN KEITINTEHDAS OY

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IC2 FEENIKS DESIGNS AND MANUFACTURES ADVANCED COVERING SOLUTIONS.

IC2 FEENIKS LTD

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www.ic2feeniks.fi/en

Our products are protecting people and materials worldwide. The practical air beam and metal frame tent systems with CBRN protective features can be used for e.g. as accommodation-, medical- and working space. We develop chemical protection products such as various Patent Isolation Pods, customized basins, body bags and ColPro systems.

The reliable solutions are designed to withstand

the high quality needed in extreme conditions. Our specialty is to provide customized solutions withstanding all weather and climate variations as well as demanding use. Solutions are designed to fulfill the unique needs of peacekeeping, crisis management and, military operations. When a threat occurs and actions are needed in emergency rescue and or first aid our solutions offer superb quality based protection.





GEOSPATIAL EDUCATION FOR ANYONE, ANYWHERE AT ANYTIME

GISPO LTD.

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www.gispo.fi

The rapid evolvement of open source geospatial software and its growing user base have created a global demand for effective solutions to enhance the geospatial knowledge base of the user organizations. Today this is easier than ever before in Gispo's E-Learning platform at **www.gispolearning.com**: users can reach first-rate online training from anywhere at anytime, and learn to use versatile open source geospatial software with ease.

BUILD GIS EXPERTISE VIA GISPOLEARNING, THE E-LEARNING PLATFORM FOR GEOSPATIAL EDUCATION

At GispoLearning, learners enhance, in corporate level trainings, their geospatial knowledge and know-how to use open source geospatial technology.



LEVERAGE POWERFUL OPEN SOURCE GEOSPATIAL SOFTWARE

The well-equipped open source geospatial software is modernizing globally the use of spatial data and technologies. Besides of the technological reliability, open source geospatial software stands out on interoperability, flexibility and accessibility.

ACHIEVE LEARNING RESULTS AT SCALE

"The theoretical parts in GispoLearning with the quizzes were of convenient length. In the exercises, I also got to make concrete map projects to use in my work community."


- Riitta [Senior Advisor]

"I liked the learning experience in GispoLearning since I could advance at my own pace."

- Lea [Systems Specialist]

Gispolearning

Geospatial e-learning platform from Gispo



EARTH OBSERVATION:
FINNISH RADAR
MICROSATELLITES

ICEYE

RELIABLE SATELLITE IMAGING EVERY 3 HOURS

ICEYE OY

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ICEYE is a Finnish Space Technology company, founded in 2014 as a spin-off from Aalto University Radio Laboratories. ICEYE has secured a total of \$20M in financing from governmental sources in Finland, EU and as venture capital from Silicon Valley.

ICEYE-X1 has been successfully launched and commissioned.

It is the world's first synthetic-aperture radar (SAR) imaging capable microsattelites of under 100kg weight. Two more satellites are scheduled to be launched before the end of 2018. ICEYE will launch a constellation of 18+ satellites. This satellite constellation enables Earth observation imaging at individual locations as fast as every few hours.



THE PROBLEM WE ARE SOLVING:

**RELIABLE & FREQUENT
MONITORING OF VAST AREAS**

**THROUGH CLOUDS
THROUGH DARKNESS**

ICEYE has developed its very own efficient SAR sensors and microsatellites which are capable of imaging at any time of day and in any weather, through clouds and darkness. We have established an exceptionally agile aerospace hardware development cycle to meet the needs of our modern customers, both national and private.

To secure our place as the leader in New Space technologies and Earth observation data, we've established programs through the Finnish government and EU to create global customer relationships and to seek out manufacturing, data downlink partnerships and rocket launch providers. ICEYE provides Earth observation data services for commercial organisations, NGOs and governments, and seeks to enhance the global aerospace ecosystem.



LASER WELDED STEEL SANDWICH ELEMENTS

KENNO TECH LTD

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Director, Export
Hannu Salmi

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www.kenno-shield.com
www.kennotech.fi

Kenno Tech Ltd focuses on the design and production of laser welded steel sandwich elements. For defense/security customers the company offers heavy fortification products: Balpro ® Protector modular ballistic shield systems and Balpro ® Containers.

BUSINESS, PRODUCTS AND SERVICES

Balpro ® Protector is a flexible, modular shield system. A system set travels as a 20 ft container, is fast to assemble into 42 meters of camp wall, shelter or other protective structure and is

genuinely multi-use. The system is being continually developed with a watch tower and a safety barrier/road block barrier being the latest addition to the product family.

- Balpro ® Container is a cost efficient transport solution that protects against threats up to 155 mm artillery shrapnel.
- Balpro ® products are in use by the Finnish Defense Forces. They are also used with UNIFIL peace keeping operation in Lebanon.



➔ Balpro Hydraulic Road Barrier, mobile gate.



➔ Tower with high level of ballistic protection.



ENVIRONICS PROVIDES SOLUTIONS AGAINST CBRN (CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR) THREATS.

Our system solutions increases the operators' situational awareness and supports their decision making even in critical circumstances.

In addition to portable and handheld detectors, the main applications are critical infrastructure protection, vehicle and naval solutions, border security and mobile CBRN monitoring systems.

Information sharing during a radiological/nuclear emergency is of vital importance to ensure an appropriate and timely response.

Therefore we have developed a reachback system, which enables scientific help from the experts – to not to underestimate the threat, nor an overreact with unjustified countermeasures.

Different safeguarding organisations around the world from civil defence and homeland security to the military in over 50 countries have already chosen us to be their partner in CBRN threat detection.

ENVIRONICS OY

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BUSINESS FINLAND



WORLD IDEAS

WE BELIEVE IN THE POWER OF IDEAS. THAT'S WHY WE FUND AND HELP FINNISH COMPANIES GROW QUICKER AND DEVELOP THEIR INNOVATIONS TO BECOME GLOBAL SUCCESS STORIES.

BUSINESS FINLAND IS AN ACCELERATOR OF GLOBAL GROWTH

Business Finland leads a Developing Markets Program, which helps Finnish companies to access, do business and partner in developing countries with government agencies, NGOs, international development organizations, international financing organizations, as well as local and international companies. Business Finland is a public organization, which helps Finnish companies to

go international, encourages foreign direct investment in Finland and promotes travel to Finland. In the Team Finland network (www.teamfinland.fi) Business Finland manages significant Growth Programs under following themes: Bioeconomy & Cleantech, Digitalization, Health & Wellbeing, Travel, Creative Industries and Cross Cutting. Through the Growth Programs, Team Finland helps hundreds of Finnish companies enter the international markets.

BUSINESS FINLAND

www.businessfinland.fi/en/

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