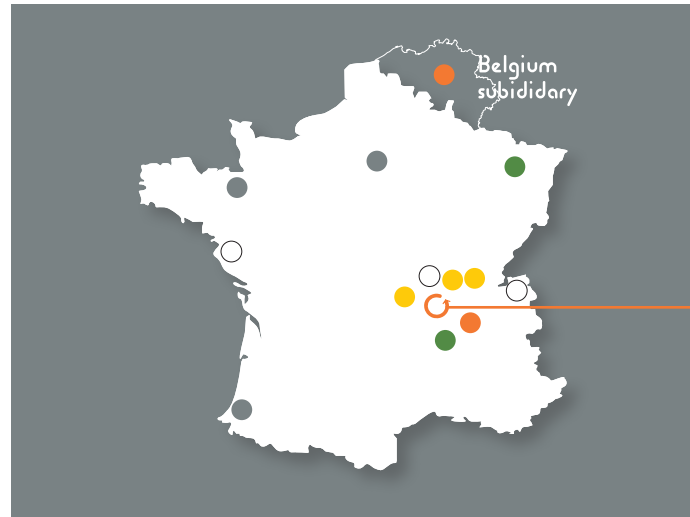


# GUVRVY

CBRN Protective Systems

« They protect us, we protect them. »





- Local offices
- Tailoring sites
- Textile production sites
- Rubber production sites

OUVRY headquarters are located in Lyon, which is a major industrial and technological center, at the heart of our network of subcontractors, research laboratories and centers of excellence. Our manufacturing facilities situated a few meters away from the headquarters are based in the former Rhodiacéta spinning building.

OUVRY relies on 3 factories with its subsidiaries SULITEC Composites and JOBEL.

**Headquarters**



**SULITEC**  
Insulating Composites



**JOBEL**



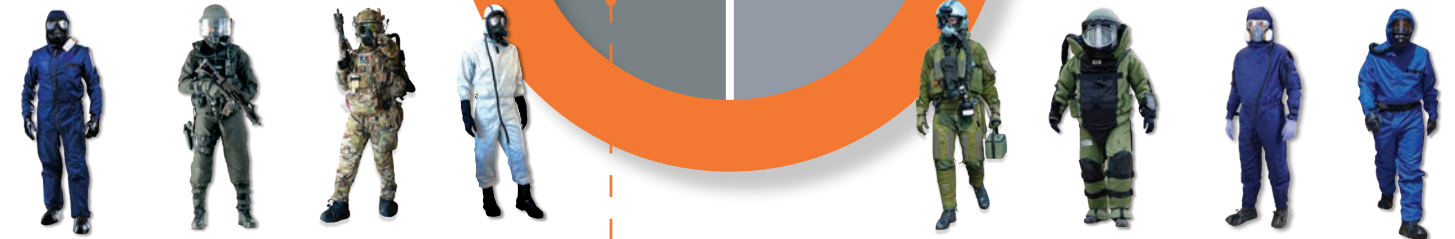
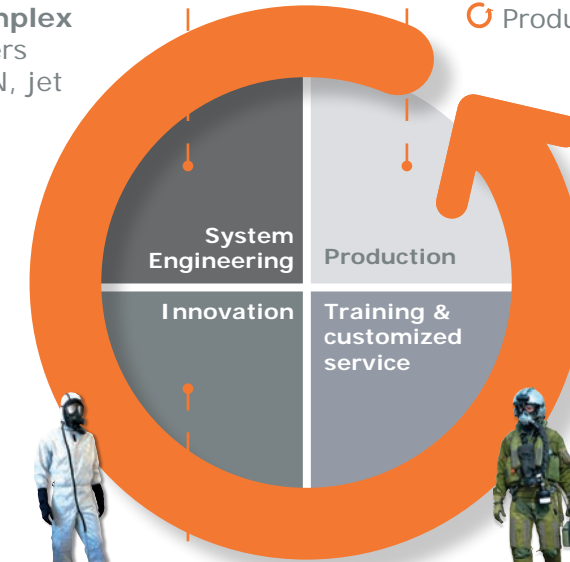
**System Engineering**

- **Our mission** : End-user experienced designed CBRN personal protective system adapted to their missions and environments
- **System integration on complex programmes** : French soldiers modernization program FELIN, jet pilots and EPIA Program
- **Design center and prototyping workshop**
- **Training and maintenance**



**Production : supply chain management**

- From raw material → to final product
- Industrial manufacturing
- Low to medium volume production (> 20,000 pieces)
- Product development on demand

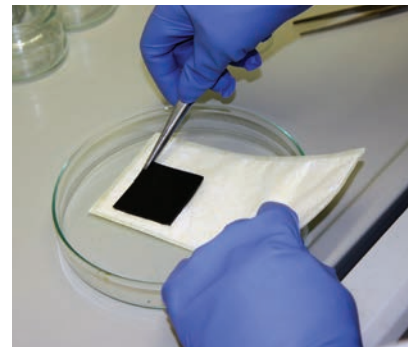


**Innovation**

- Technical and functionalized textiles
- Human factors : ergonomics, thermo-physiological and sensorial properties
- Innovative materials : new MFE® filter fabric, DECPOL ABS®
- Digitalisation, Industry 4.0



The OUVRY new products development cycle



R&D



Ecodesign

OUVRY, prime contractor for CBRN R&D complex programs:

- ▶ EDA (European Defense Agency) - EPIDARM
- ▶ ANR (National Agency for Research) - SELDEC
- ▶ DGA (Defense Procurement Agency) - PEA\*
- ▶ Horizon Europe - Encircle, NanoMOF, TRANSTUN



Ouvry scientific and technological ecosystem:

SCIENTIFIC:



Lyon faculty of pharmacy / universities

LABORATORIES:



<sup>1</sup> CBRN laboratory  
<sup>2</sup> Netherlands Research Center



French textile institute



Vinca's nuclear sciences institute (Serbia)



National scientific research council



Atomic Energy Agency



Institute for Radiation Protection and Nuclear Safety

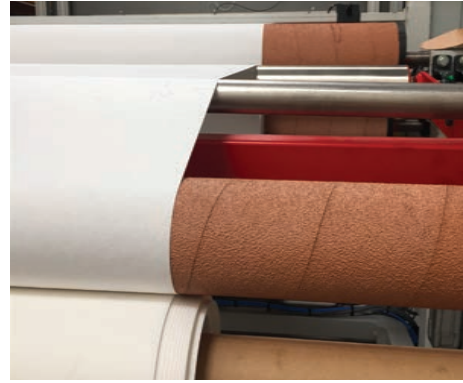


National institute for CBRN protection (Czech Republic)

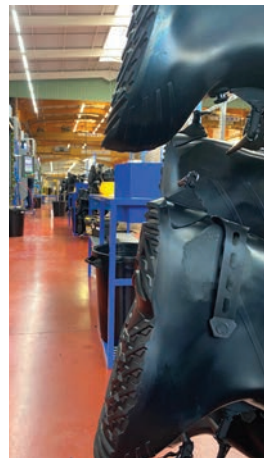


Military research institute (UK)

### Textile manufacturing



### Injection of CBRN butyl gloves OG05® and butyl overboots OBOOTS®



An ecosystem of  
> 200 people



> 200,000 suits



>20,000 CBRN masks

**DECPOL®** CBRN decontamination wipes



**SIM KIT®** Chemical Warfare Agent simulants



### CBRN containment bags

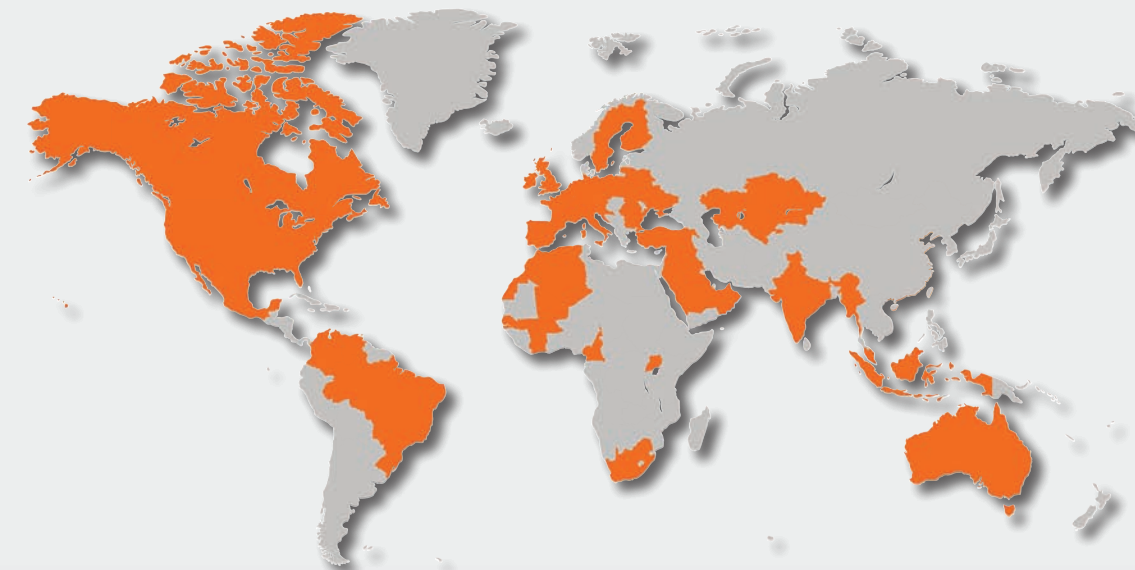




> 1,000 customers



Present in > 60 countries



United Nations

N° UN : 148223



Defense - Law Enforcement



Medical - Rescue



Security - Industry

Defense / Law enforcement



Medical / Rescue



Specialized Units



# CBRN PROTECTION

## OUR CONCEPTS

### 🕒 Defense / Law enforcement

- Liquid, vapor and aerosol risks
- 24h protection

### 🕒 Medical / Rescue

- Liquid, vapor and aerosol risks
- 12h protection

### 🕒 Specialized Units

- Vapor risk
- 24h protection

### CBRN combat suit



Ref: 540090

- Used by French Armed Forces
- Air permeable, lightweight and robust two-piece suit
- Outer shell: 100% recyclable cotton

- Washable
- Different camouflage printing available

### Tfi®

#### CBRN air permeable intervention overall

- Used by special law enforcement units, SOF and SWAT teams (RAID, GIGN, BRI,...)
- Air permeable, lightweight and robust suit
- Washable
- Standard color blue. Other colors and camouflages available on demand



Ref: 540018



- CBRN Permanent Wear
- 24 hours : liquids + vapors + aerosols

### TARGET® range

#### CBRN air permeable combat gloves



Ref: 510000

- Used by French Armed Forces
- Great dexterity for handling weapons, electronic and radio equipment
- Air permeable, extended wear time

### TARGET 2®



Ref: 510004

- Metacarpal reinforcement
- Screen touch compatible
- Lightweight

### GBOOTS®

#### CBRN butyl overboots



Ref: 500001

- Enhanced protection against CBRN agents and TICs
- Lightweight
- Thermal and fire resistant
- Robust and decontaminable
- Antistatic
- Ambidextrous



#### CBRN air permeable socks

- Low thickness : compatible with all boots and shoes
- Comfortable
- Washable



Ref: 501004



### POLYCOMBI®



#### CBRN polyvalent protective suit

- Lightweight and air permeable
- Washable
- Extended wear time
- Ideal for crisis management



Double sleeves



Integrated booties



Ref: 540540

CBRN Intervention

12 hours: liquids + vapors + aerosols

### G05®

#### CBRN butyl gloves



Ref: 511008

- Low thickness, excellent dexterity
- Enhanced protection against CBRN agents and TICs
- Heat and fire resistant
- Touch screen compatible
- Ambidextrous
- Robust and decontaminable
- Grip thanks to the textured pattern



### GBOOTS®

#### CBRN Butyl overboots

- Enhanced protection against CBRN agents and TICs
- Lightweight
- Thermal and fire resistant
- Robust and decontaminable
- Antistatic
- Ambidextrous



Ref: 500001





# CBRN PROTECTION

## GPU®



Ref: 540210

### CBRN air permeable undergarment

- Qualified by DGA
- Used by French Armed Forces and several EOD teams
- Adapted to the protection of VIP, fire-fighters, combat and transport aircraft and helicopters pilots
- To be worn under the standard work clothes
- Washable, low thickness and comfortable
- No thermo-physiological impact

## FTC®

### CBRN air permeable hood

Ref: 520003

- Suitable with several CBRN masks
- Optimal comfort and low thickness
- Washable

## SPECIALIZED UNITS CONCEPT



Worn under standard equipment

## SECOND SKIN®

### CBRN air permeable undergloves



Ref: 512002

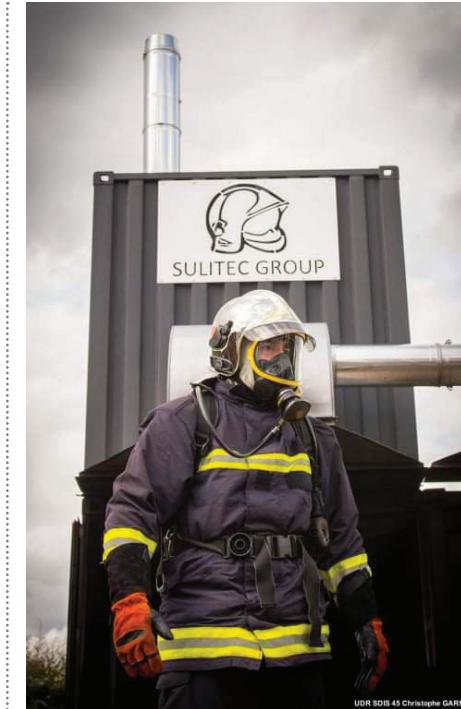
- Low thickness and excellent dexterity
- Worn under regular gloves
- Washable

### CBRN air permeable socks



Ref: 501004

- Low thickness, comfortable
- To be worn under the in-service boots and shoes
- Highly robust and washable



# CBRN PROTECTION

## OPPS : OUVRY PILOT PROTECTIVE SYSTEM

AUTONOMOUS - ERGONOMICAL - LOW PHYSIOLOGICAL BURDEN - MULTIPLATFORM

### Above-the-neck protection

#### CBRN air permeable hood



- Flame-retardant air permeable CBRN material
- Anti-fogging ocular protection
- Optimized oxygen mask interface

#### Compact PAPER + canister



#### Internal mask CBRN protection cap



#### Anti-fogging device



### Below-the-neck protection

#### Daily flight coverall worn on top



OCPU®

CBRN air permeable undergarment

OPPS undergloves

CBRN air permeable undergloves

OPPS CBRN air permeable socks



6G proven / Ejection safe / Kerosene fire safe / in-flight Valsalva / CBRN MIST tests

Qualified by DGA and used by the French Armed Forces



### CBRN containment bags

Small



300 x 170 mm  
Ref: 592003AA

Medium



750 x 300 mm  
Ref: 592001AB

Large



1145 x 610 mm  
Ref: 592002AA



### GPATCH® CBRN Repair kit



120 x 100 mm  
Ref: 530001AC-U



### Tactical transport bag for mask



Coyote bag:  
Ref: 109034AA-U

- Offers versatile wear options:
- On the belt or over the shoulder
  - On the thigh
  - Attached to any MOLLE systems



Black bag:  
Ref: 109034AB-U

### Transport bag



Ref: 790001AA

### Storage bag

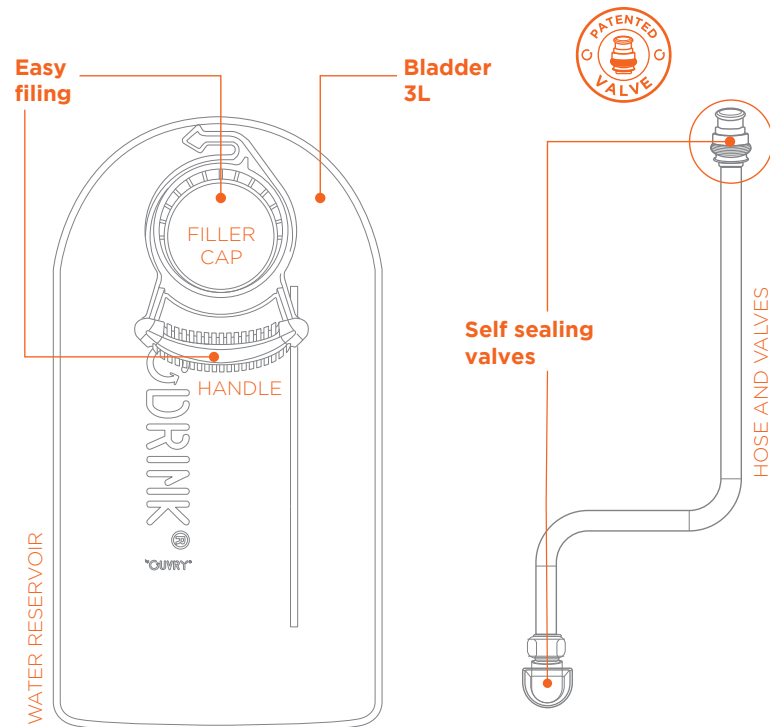


Useful to store one mask and two canisters

Ref: 109019AA

### GDRINK® Hydration System

Ref: 531001AA



10 YEARS  
-20C° - +70C°  
SHELF LIFE 10 YEARS

- Capacity: 3L
- Protection > 24h CBRN (Chemical, Biological, Radiological, and Nuclear)
- Patented 2-in-1 drinking valve: allows drinking directly by mouth or via type A (GML Gas Mask Link) connector
- Self-sealing valves to prevent external contamination (both reservoir and drinking tube)
- Hands-free drinking in CBRN environments / one-handed drinking in non-CBRN environments
- Easy reservoir filling
- Integrated drying system
- Hydration system compatible with all transport bags (>5L)
- 100% quality control



○ Hydration device carrying bag  
Coyote bag:                      Black bag:  
 Ref: 531012AA                      Ref: 531012AB



>24H CBRN



NO-TASTE



10 YEARS SHELF LIFE



EASY DRY

# DECONTAMINATION

## DECPOL ABS® - Polyvalent CBRN decontamination wipe

DECPOL ABS® Dry emergency chemical and biological decontamination wipe



Ref: 600006AC-U



AGENCE INNOVATION DÉFENSE



- Biocompatible (healthy and wounded skin)
- Absorbs quickly any suspect product with no exothermic or explosive reaction
- Avoids the risk of cross contamination
- No spread of contaminated powder, nanoparticles, fiber
- Tested on real CWA : >99.5% (HD-VX)
- Shelf life: 10 years
- Lint free



## DECPOL RAD® - Radiological decontamination wipe

DECPOL RAD® non-woven ready-to-use- wipe impregnated with RADECOM® solution



Ref: 600007AA-U - bag of 10 wipes

Ref: 600007AE-U - bag of 2 wipes

### Mode of action

- Chemical action of the RADECOM® impregnated solution which detaches the particles from the surface
- Mechanical action of the wipe which removes the detached particles from the surface
- Once DECPOL RAD® has been used, DECPOL ABS® can be used to absorb the residual RADECOM® solution

## RADECOM®

Degreasing solution inside for radiological decontamination



- Inert
- Skin friendly
- Very good wiping and absorption performance on all kind of surfaces (smooth or with roughness)
- Lint free



# MEDICAL EVACUATION

## MEDICAL AND EMERGENCY TRANSPORTATION

### EVACOPS® : Extraction bag for CBRN contaminated victims

- Ⓞ Specially designed for the transport of CBRN contaminated casualties, or anyone potentially contaminated, from the field to the forward medical post
- Ⓞ Reduces the risk of chemical and radiological contamination of personnel and means of transport, to keep them operational and ensure the continuity of medical logistic flow
- Ⓞ Protection > 48h
- Ⓞ Low logistics footprint
- Ⓞ No maintenance, no consumable
- Ⓞ NATO stretcher compatible
- Ⓞ Easy to use
- Ⓞ Decontaminable on surface



### Quickly deployable with intuitive setup, making it suitable for time-sensitive situations



Comes with a PEBD sheet for laying on the ground



### Easy to use

- Ⓞ Meticulously designed to ensure ease of use in high-pressure crisis situations, allowing first responders to act swiftly and effectively without compromising safety or functionality

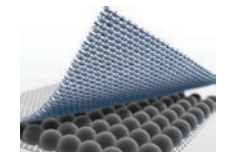
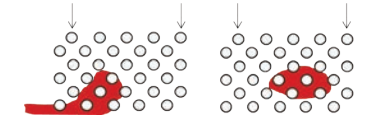
- Access to the respiratory tract of the victim (intubation, oxygene masks)
- Head support system
- Integrated hood
- Transparent window to monitor the patient's progress
- Emergency access to the victim
- Pocket for documents and equipment



- Gas-tight zip and butyl collar
- Cables ports to allow perfusion lines and cables to pass

### Ensures containment of contaminants:

- Absorbs liquid contaminants:
- Adsorbs contaminated vapors:



Ref: 593002AA

## AIR PROTEC® Mobile isolation system Biological risks (ENT)

- Ideal for handling patients with suspected or confirmed contagious respiratory infections spread through airborne or droplet transmission
- Reduces the cross-contamination by protecting staff and transport vehicles by isolating the ENT (Ear Nose Throat) area of infected patients
- Enables the administration of treatments (oxygen, nebulization, ventilation,...)
- Filtration rate greater than 99.9999%
- The airflow rate of the filtration system is 63l/min ensuring that the patient's exhalation is completely isolated from the outside environment



Ref: 593005AA-U

- Class I Medical Device **MD**
  - Easy to use, maintenance free
  - Quickly reusable and disinfectible
  - Easy-to-carry and space-saving
  - Long autonomy
- CE**
- EU Regulation 2017/745
  - Directive 2002/96/EC
  - IEC 62311
  - NF EN 60601-1 / IEC 60601
  - NF EN 60601-1-2 IEC 60601-1-2
  - NF EN 60601-1-12

## AIR PROTEC®



- Mobile Isolation Bubble**
- Independent of patient's posture (lying down vs seated)
  - Easy to remove if necessary

- Mobile Suction System**
- Ensures the filtration of the patient's contaminated breath and the provision of fresh air

## CBRN BODY BAG

- Secure containment for the evacuation and temporary storage or deceased CBRN contaminated bodies
- Designed to avoid cross-contamination during body extraction
- Absorbs body fluids (up to 6 liters)
- Decontaminable on surface
- Freezable and incinerable
- Compatible with medical imaging
- Available in two sizes:

- Adult: Ref: 593001AA-M  
- Child: Ref: 593001AA-XS



Supplied with seals for forensic identification



Handling straps for easy transport



## CBRN® Professional training

Training organization Nr. : 84 69 1815469

- Ⓞ Audit
- Ⓞ General CBRN training (Risks / protection solution)
- Ⓞ Training in the use of CBRN PPE
- Ⓞ Instructor training
- Ⓞ Customized training
- Ⓞ Maintenance training



Ref: 751000AA

Ref: 300000AA

### PPE training version

PPE training version for training, instruction and courses

- Ⓞ Design and comfort identical to operational equipment
- Ⓞ Allows repeating the donning and doffing procedures on the operational plan
- Ⓞ Preserves the strategic stock of operational equipment
- Ⓞ Washable and reusable



TFI®: Ref: 740018AA

POLYCOMBI®: Ref: 740540AA

COMBAT SUIT: Réf: 740090

TARGET®: Ref: 710000AA

### Training canister



## CFG® Training

- Ⓞ Washable and disinfectable
- Ⓞ Reusable for life
- Ⓞ Carbon footprint reduction

## SIM KIT® Chemical Warfare Agent simulants

### For realistic courses and trainings

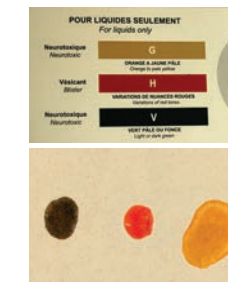
- Ⓞ 3 simulants with the same physical and chemical characteristics as real agents
- Ⓞ Works with detection equipment and systems in use
- Ⓞ Fluorescent agents with UV lamp



Ref: 310001AC



### Colorimetric detection paper



Ref: 200000AA

- Ⓞ Detection of HD, GB and VX in liquid form
- Ⓞ Self-adhesive paper
- Ⓞ 12 pages booklet

### Banana oil



Ref: 310003AA

- Ⓞ For quick control of the proper mask fit in first intention (through smell)



### New systems qualification



### Technical and instructive supports

Videos, posters, user guides, presentation



**POLYCOMBI®** by GUVRY®

Donning procedure / ةياقوللا تامهم ءادترا ل حارم



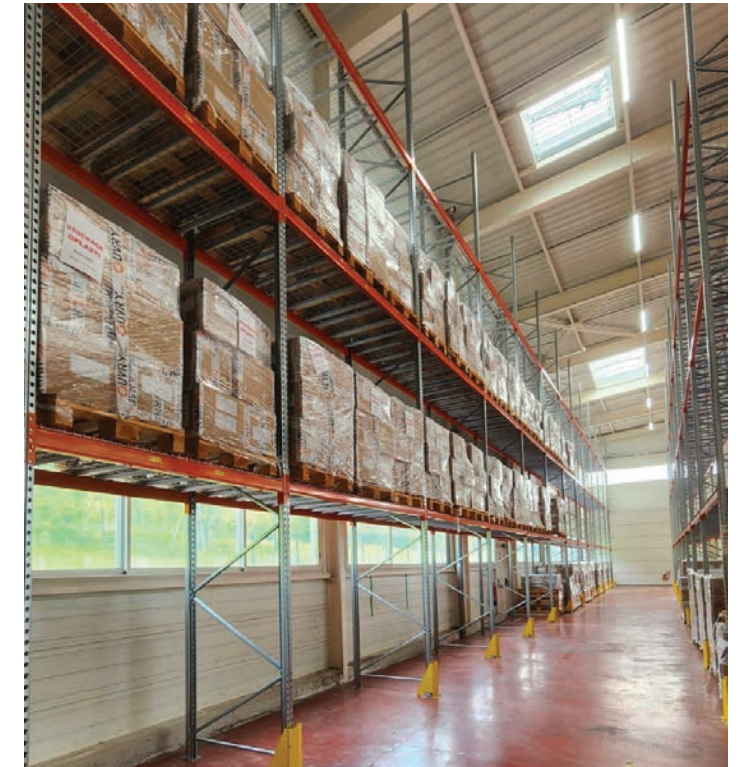
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info@ouvry.com  
www.ouvry.com

### Adaptable, reactive and optimised international logistics





**EDEN**  
DEFENSE SECURITY SAFETY CLUSTER



**GICAT**



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