



**CTMA**

Centre de Technologies  
Moléculaires Appliquées

**UCL**  
Université  
catholique  
de Louvain

# B-LiFE

## Biological Light Fieldable Laboratory for Emergencies

### ESA IAP – ARTES 20 Demonstration Project

Space Days 2014

October 13-14 2014



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de l'Enseignement supérieur  
et de la Recherche





# B-LiFE

Rapidly deployable capacities  
for unambiguous and evidence based assessment  
of biological threats





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## B-LiFE Consortium

CTMA : Light fieldable laboratory, Coordination

Aurea Imaging : Earth observation, UAS, Geolocation

Eonix : Data integration, Geolocation

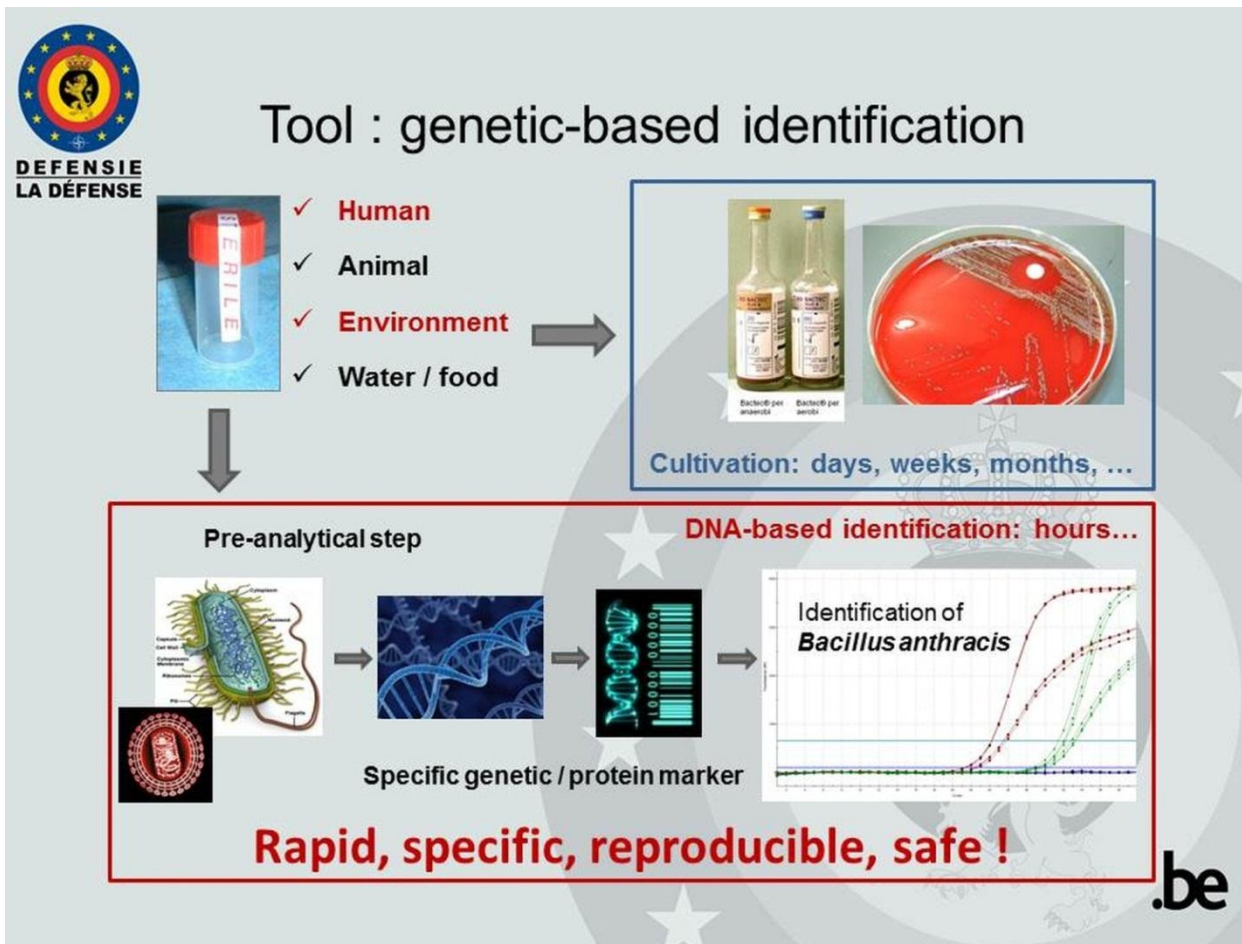
Nazka Mapps : Earth observation, mapping

SES TechCom : Satellite communication





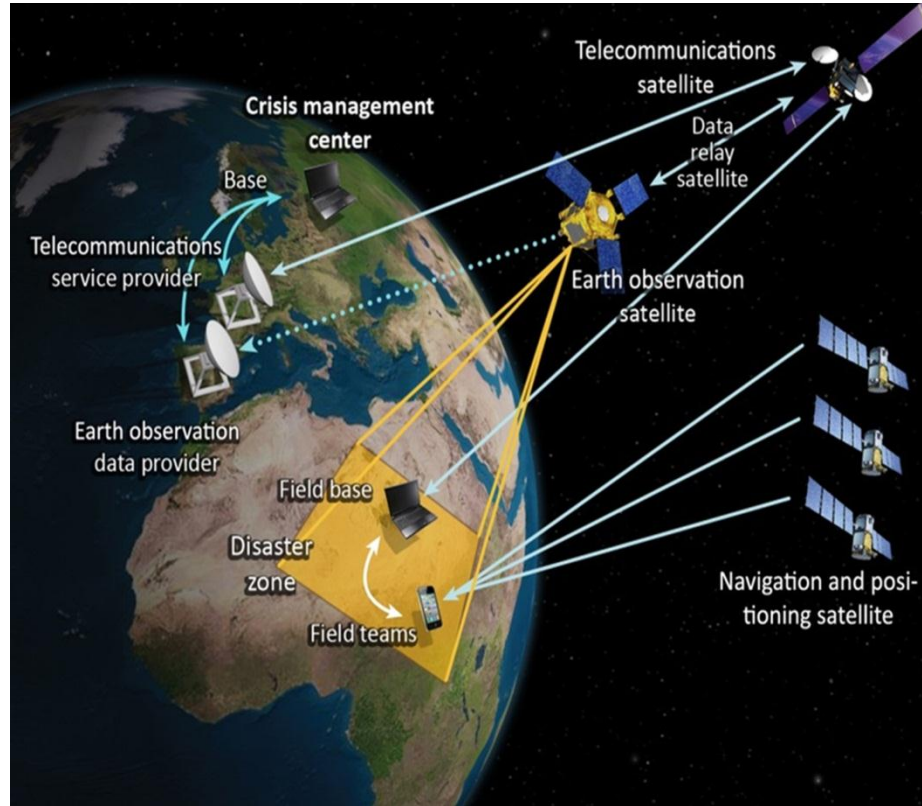
# New tools for identification of pathogenic agents





# Integration of Space Assets

## Satellite Communication



## Earth Observation



## Satellite Navigation and Positioning





## Space Assets Capacities

### Satellite Communication

#### Capacities :

- Real time communication between field teams and command and control centers
- Real time communication with remote experts
- Broadband links for data, voice and video
- Real time availability of evidence based results for decision makers



#### Resources :

- Emergency.lu services
- Commercial satellites

Partner : SES TechCom



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## Space Assets Capacities

### Satellite Navigation

#### Capacities :

- Geolocation of collected samples
- Tracking of field teams and equipment

#### Resources :

GPS – GALILEO – EGNOS

#### Partners :

Aurea Imaging, Eonix, Nazka Mapps



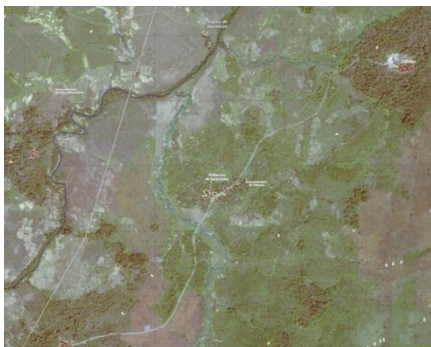


## Space Assets Capacities

### Earth Observation

#### Capacities :

- Geographical information and maps of crisis area
- Site selection and monitoring



#### Resources :

- GMES / Copernicus services
- Remote sensing satellites
- Unmanned Aerial Systems

#### Partners :

Aurea Imaging, Nazka Mapps



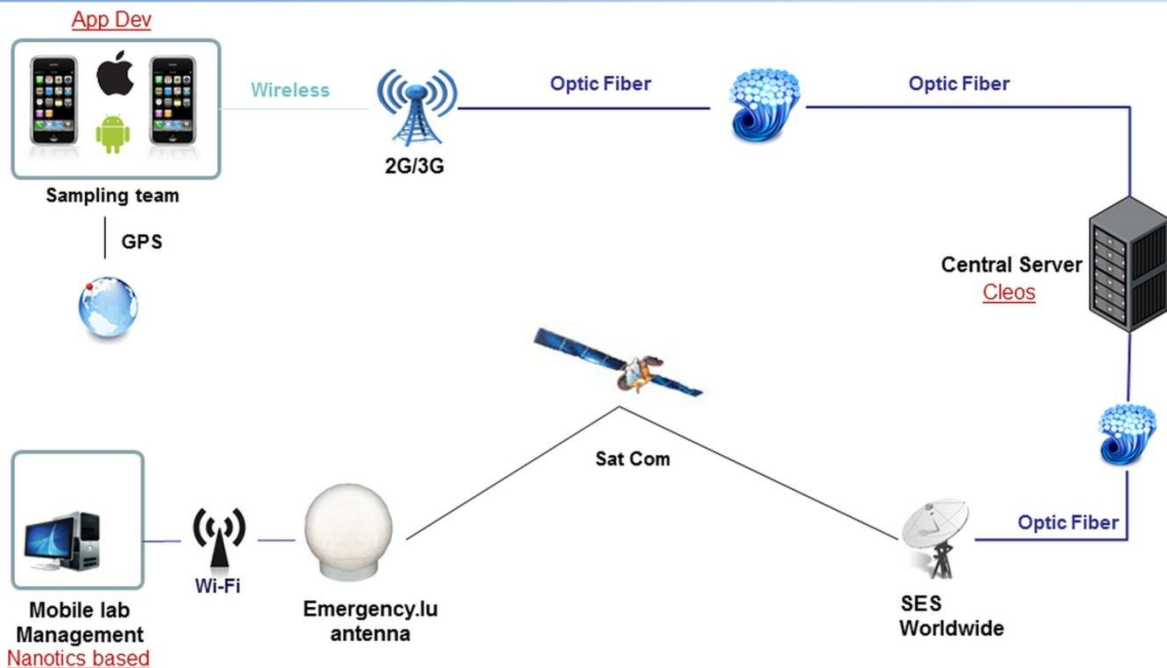




# Space Assets Capacities

## Data Integration

Data integration and emergency system to support the field deployable laboratory



**Capacities :** Integration of analytical data, geolocation, mapping and reporting

**Resources :** Autonomous infrastructure for telecommunication, data bases and servers

**Partners :** Eonix ,  
SES TechCom





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Thank you !

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