CLIMATE CHANGE ADAPTATION
DESIGN, BUILD AND OPERATE YOUR RESILIENCE
CONSULTING
- Vulnerability assessments and impact studies
- Technical and financial evaluation
- Training, audits and compliance

MODELING
- Predictive maintenance and monitoring
- Weather and climate data services
- Functional engineering through stress tests

PROJECT COORDINATION
- Project management assistance
- Integration of technical solutions
- Coordination and collaborative engineering
TWO KEY PARTNERSHIPS

...ON SPACE & CLIMATE DATA

REMOTE SENSING

DECISION SUPPORT

PREDICTIVE MODELS

SPATIAL DATA

...ON BUILDING & INFRASTRUCTURES

DIGITALISATION

MONITORING

ENGINEERING

RESALLIENCE
LOCATION OF PROJECTS
REALIZED, IN PROGRESS, FUTURE & UNDER DEVELOPMENT

KEY FIGURES SINCE JANUARY 2019

▪ 80 PROJECTS
▪ 60 COUNTRIES
OUR KEY BUSINESS SEGMENTS

- International Funders
- Cities & States
- Real Estate
- Network Operators
- Construction & Industry
THE RESILIENCE PERFORMANCE ASSESSMENT (RPA)
RESILIENCE PERFORMANCE ASSESSMENT
FOR BUILDINGS AND CONSTRUCTION

Valorization of spatial data
Climate change impacts modeling
Warning system design

Use of spatial data

Climate change current and future impacts mappings
Infrastructures action planning in their territorial context

A hypervisor to pilot, communicate and strengthen capacities

Processing & Modeling

Investment costs calculation vs cost of inaction
Efficiency and rentability calculation
More virtuous economic strategies planning
Anticipation with a multi-risk warning system

Data acquisition
Discharge and flood forecasts
Flood mapping
Forecast

CAPEX/OPEX and investments rentability calculation

Transport and logistic stream optimisation
Process adaptability
Capacity building
METHODOLOGICAL APPROACH OF THE RESILIENCE PERFORMANCE ASSESSMENT FOR BUILDINGS AND CONSTRUCTION

Assessment of the project externalities Cost/risk/benefits and prescriptions

Assessment of ground, hydrological, biodiversity and predictive climate patterns

Territorial diagnosis

Reality

Resilience Performance Assessment

GIS layers

Potential locations

Predictive climatic models through downscaling approaches

Global Circulation Model

Regional Circulation Model

Hydrology

Regional Land Use

Vegetation and emissions change

Elevation

Slopes

Soil

Vegetation

Rainfall

Potential Risk

Current and future risk

SELOUANE and ASSAKO (2006)
FIRST USE CASE:

ASSESSMENT OF THE RESILIENCE OF REAL-ESTATE ASSETS FOR AN OVERALL COUNTRY

CDC-HABITAT, FRANCE
ASSESSMENT OF THE RESILIENCE OF REAL-ESTATE ASSETS FOR AN OVERALL COUNTRY

Resilience

- Current state of risks for each building
- Qualify and quantify the current level of resilience
- Formulation of proposals and recommendations
- Cost/benefits analysis of these recommendations
- Assessment of the resilience improvement after recommendations

Adaptation actions vs SDGs / Energy efficiency

Results

Criticality

2020
A RESILIENCE PERFORMANCE ASSESSMENT TOOL OF REAL-ESTATE ASSETS
THE RPA: AN INTEGRATIVE TOOL TO ASSESS CLIMATE CHANGE IMPACTS AND ENHANCE BUILDINGS ADAPTATION
SECOND USE CASE:

DESIGN AND LOCALIZATION OF NATURE-BASED SOLUTIONS TO STRENGTHEN URBAN AND RESILIENCE

OUAGADOUGOU, BURKINA FASO
APPLICATION OF THE RPA IN OUAGADOUGOU (BURKINA-FASO) : DESIGN AND LOCALIZATION OF NATURE-BASED SOLUTIONS TO STRENGTHEN URBAN AND RESILIENCE
THE RPA TO LOCALIZE THE MOST ADAPTED NATURE BASED SOLUTIONS TO CLIMATE CHANGE

Adaptation actions through nature based solutions
THIRD USE CASE:

RESILIENCE ASSESSMENT OF THE CRITICAL INFRASTRUCTURES OF AN ENTIRE TERRITORY

DOMINICA
APPLICATION OF THE RPA IN DOMINICA: RESILIENCE ASSESSMENT OF THE CRITICAL INFRASTRUCTURES OF AN ENTIRE TERRITORY
FOURTH USE CASE:

INTEGRATIVE TOOL FOR SUSTAINABLE WATER MANAGEMENT

DEPARTMENT OF CORREZE, FRANCE
APPLICATION OF THE RPA IN THE DEPARTMENT OF CORREZE, FRANCE: INTEGRATIVE TOOL FOR SUSTAINABLE WATER MANAGEMENT