

ABOUT TERRA Ltd.Co.

(www.terrasrl.com)

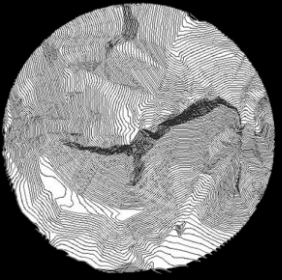
Our fields of expertise are **applied ecology** and the nexus between **environment and health**.

We engage continuously in **researching and developing cutting line technologies** and best practices, such as advanced **satellite-based planning, artificial intelligence, ultra-precise bathymetry, submerged-streams-based coastal management, and a range of nature-based solutions**.

Stakeholders' involvement is the key to success; thus, we adopt **participatory planning** whenever possible.

Transparency is also a key value, and we take responsibility **against green washing**.

Terra Srl is registered in Italy's National Research Register and has produced numerous scientific publications.

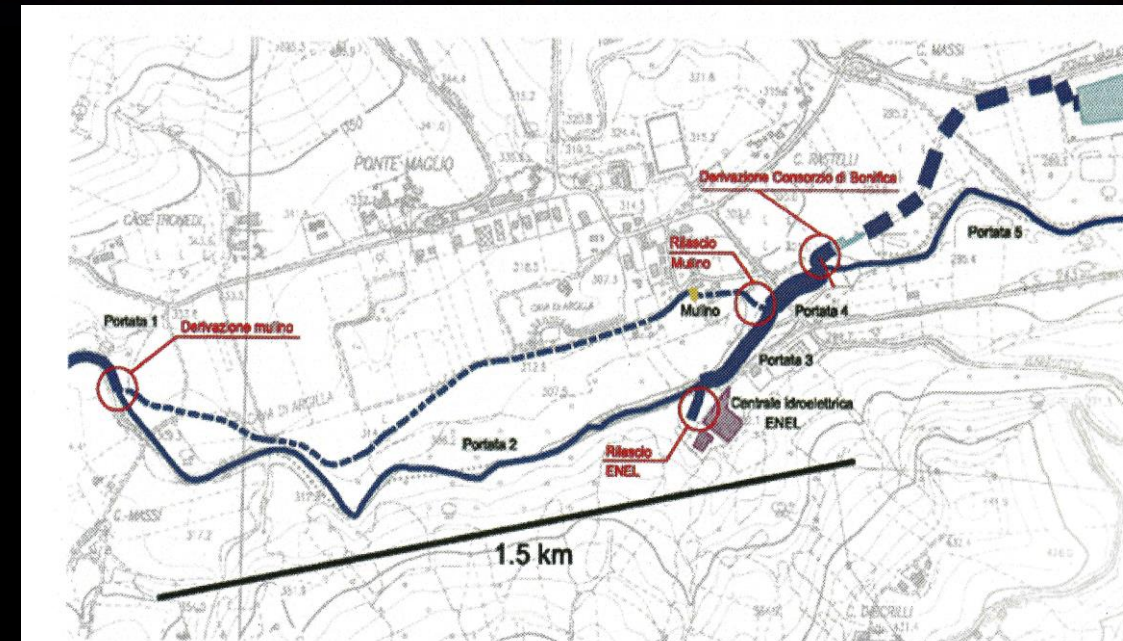


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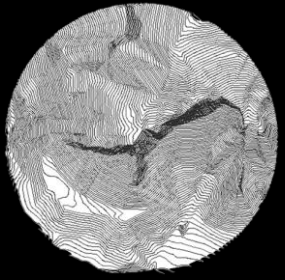
(www.terrasrl.com)

Our services:

- Environmental impact assessment,
- Strategic environmental assessment,
- Health impact assessment,
- Nature based river management,
- Watershed management,



Planimetria problematica dello stato di fatto

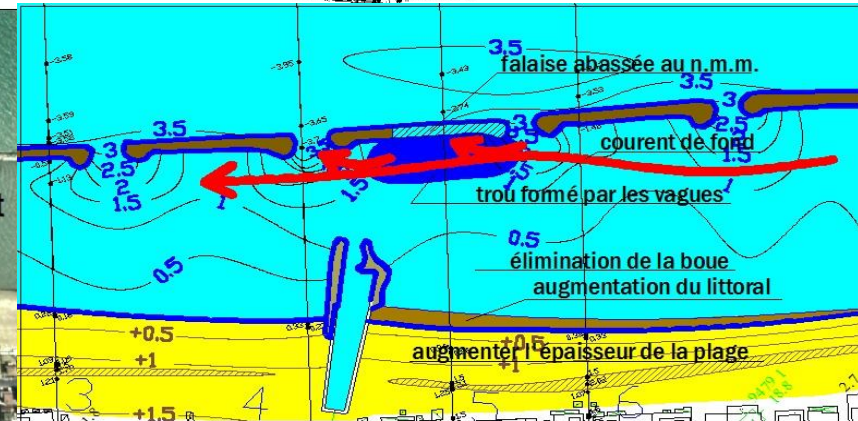
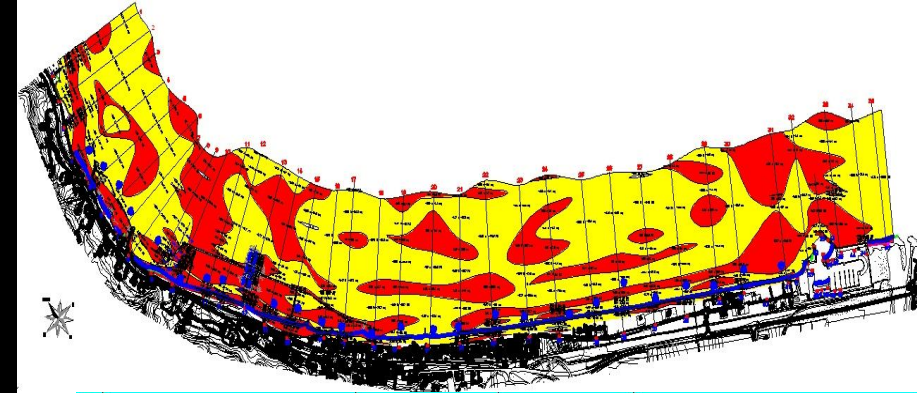


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We provide technical support for:

- Coastal management,
- Fighting coastal erosion
- Geothermal, solar and wind energy,
- Waste management
- Disaster risk reduction.



Satellite Data

Through satellites we can offer the following services that can serve cities:

- Atmospheric Pollution Air quality monitoring;
- Soil use Land use and quality mapping;
- Forest Management Assessment of water stress, fire risk and carbon sequestration capacity;

Satellite Data

Through satellites we can offer the capacity;

- **Coastal erosion** Satellite bathymetry enables the use of soft solutions against coastal erosion.

We created an innovative algorithm (**Poseidon**) to estimate water depth from satellite images using the most advanced statistical techniques.

See the English version link below for more details:
<https://www.terrasrl.com/research-and-development/?lang=en>



Figure 9 Seaweed maps of RF best configuration prediction



Figure 8 Rastermap of RF best configuration prediction

Environmental Impact Assessment and Strategic Environmental Assessment

Ensuring that the development of human activities is compatible with the environment

Three pillars of sustainability:
**SOCIAL,
ENVIRONMENTAL
AND ECONOMIC**

**MANAGING
GLOBAL
UNCERTAINTY**



Improving projects in environmental, climate and efficiency terms.

CLIMATE PROOFING for forecast plans

Providing factual, science-based **INFORMATION**
(NO GREENWASHING)

PARTICIPATORY PROCESSES

addressing climate change we aim at ensuring wide participation of the stakeholders through a participatory process

PHASE 1 Selection of the stakeholders

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graph TD; P1[PHASE 1 Selection of the stakeholders] --> P2[PHASE 2 Information and communication to participants]; P2 --> P3[PHASE 3 Phase of contributions / stakeholder comments]; P3 --> P4[PHASE 4 Mainstreaming of the outcome of consultation in decision making];
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PHASE 2 Information and communication to participants

PHASE 3 Phase of contributions / stakeholder comments

PHASE 4 Mainstreaming of the outcome of consultation in decision making

WHEN? during the planning phase and by monitoring during operations

TARGET? Building consensus with local communities

HOW? taking into account climate change and scenarios

LCA – Life Cycle Assessment



LCA – Life Cycle Assessment

WHAT IS LCA?

It's an analysis tool that allows a holistic view of the potential environmental impacts associated with a product, process or human activity, from the extraction of raw materials to end-of-life management.

A project example **Marina Plan Plus - Comparative Life Cycle Assessment of two sediment removal systems in the Porto di Cervia canal.**

A comparative analysis of the life cycle (LCA) of two systems against the silting-up of the harbour of Cervia (Italy). – The systems considered are:

- An innovative plant for flushing
- Traditional dredging operations

T.E.R.R.A. S.r.l. has drafted this Life Cycle Assessment in compliance with legislation ISO 14040 and ISO 14044 considering both the environmental and socio-economic aspects.

Low cost construction systems that marry quality, speed, sustainability, and resilience

The “Umbrella” light prefabrication provides immediate coverage allowing subsequent completion to be phased and upgraded according to resources.

The MICS system is a structural alternative to reinforced concrete based on stone using near zero cement, zero emissions of greenhouse gases, zero consumption of water and sand.

These systems can be produced locally, setting up a local medium enterprise

Both systems are anti-earthquake and anti-cyclone



Evolving towards a green city:

HOLISTIC URBAN PLANNING

NATURE BASED SOLUTIONS

INTEGRATED DESIGN APPROACH

Five layers to be managed for a green city block

PV SHELTERING THE ROOF

GREEN ROOF, URBAN AGRICULTURE

MIXED USE BUILDINGS, GREEN FACADES

**PEDESTRIAN GREEN SPACES UNDERNEATH
THE BUILDING AT THE GROUND FLOOR**

UNDERGROUND PARKING

Five examples of green architecture



Piombino social housing with PV over the terrace green roof



Padua social housing with communal winter garden



Lucca startup incubator with innovative Technologies



Lucca startup incubator with roofgarden



We seek partners to respond to the EU's «SWITCH ASIA» call for proposals.

We will contribute our expertise to respond to the call's priorities;

Priority 1: Support MSMEs in reducing their greenhouse gas emissions and the environmental impact of their industrial production, improving resource mobilisation and efficiency and adopting circular economy practices and to Reduce, reuse and or recycle by-products of production, test innovative packaging solutions and promote alternatives to plastics packaging.

In response to this priority our solutions enable:

A comprehensive technology to combat plastic pollution of water bodies, through tools for monitoring and modelling the displacement of plastics, and Managing the collection of plastic and microplastics in ports, use of mussels for tracking and purification from microplastics, aquatic drones for the collection of plastics, and a toolbox to collect information and results from pilot actions.

-building techniques that cut greenhouse gas emissions and improve resilience against extreme events

We seek partners to respond to the EU's «SWITCH ASIA» call for proposals.

We will contribute our expertise to respond to the call's priorities;

Priority 2 :mobilise the potential of digitalisation of product information to inform and educate consumers about the product characteristics and proper storage and to improve food chain traceability.

In response to this priority we will develop and apply:

An artificial intelligence app to deliver information to monitor environmental data and health data of a specific territory by correlating a food product in its biogeographical context. Design of specific software with artificial intelligence to be installed on mobile phones and computers to control where food products are produced. Evidence-based territorial marketing process. Process and product certification on an environmental and health basis.

This project promotes the digital transition and awareness of the product related to the territory.

- شكرًا لك! धन्यवाद! धन्यबाद! ကျေးဇူးတင်ပါသည်! 謝謝你!
- 감사합니다! Salamat! ありがとう! Matur nuwun! धन्यवाद!
- Terima kasih! ຂອບໃຈ! धन्यवाद! ਤੁਹਾਡਾ ਧੰਨਵਾਦ! Cảm ơn!

•Thank you!