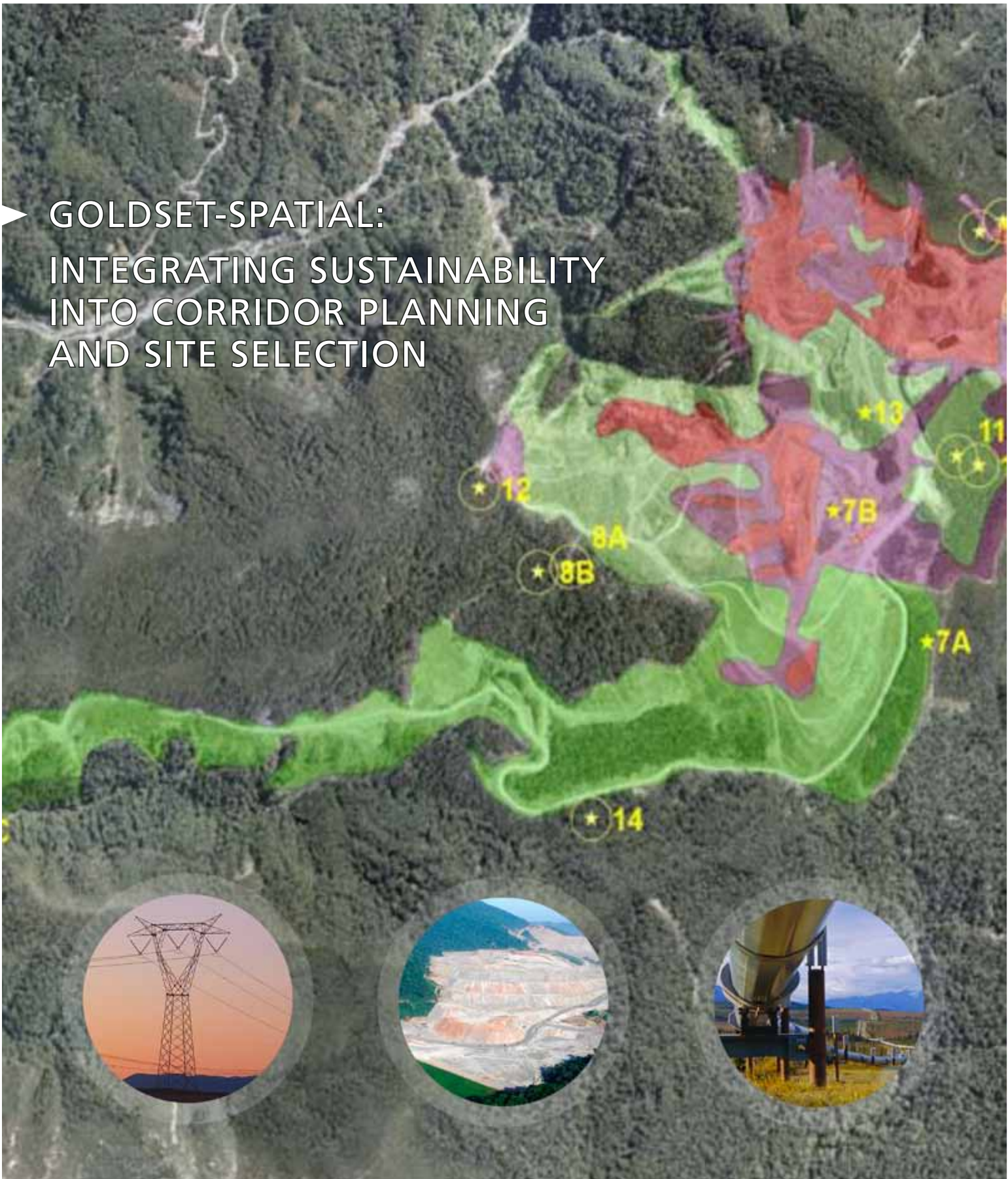


▶ GOLDSET-SPATIAL:
INTEGRATING SUSTAINABILITY
INTO CORRIDOR PLANNING
AND SITE SELECTION

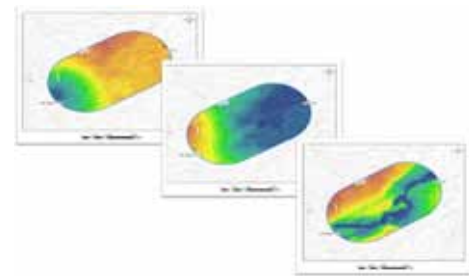




CORRIDOR PLANNING AND SITE SELECTION WITH GOLDSET-SPATIAL

Project proponents worldwide are facing unprecedented scrutiny and demands from investors, regulators, communities and other stakeholders. Given this context, the ability to understand and assess the environmental, social, economic and technical risks and opportunities of a project during the planning and design phases have become essential to the success of a project.

By integrating a spatial component into a rigorous multi-criteria analysis (MCA) which utilises qualitative and quantitative indicators from technical, environmental, economic and social dimensions, GoldSET-Spatial provides an effective process for quickly identifying the most sustainable corridor for linear projects and selecting the best sites for plants and installations. In addition, GoldSET-Spatial allows for a comprehensive evaluation and comparison of project alternatives.



WHAT IS GOLDSET-SPATIAL?

GoldSET-Spatial is a flexible, user friendly and integrated approach to support routing and siting option identification and analysis by combining spatial data (GIS) with the multicriteria framework provided by GoldSET.

Mapping the wider environmental costs in terms of geophysical and technical, ecological and sociocultural features can lead to the identification and the evaluation of key technical and non-technical factors impacting on a project. These factors can in turn shape the development and optimization of options in a space of conflicting priorities – ultimately enhancing the ability to take the right decision, to advance sustainable development and to communicate it better.

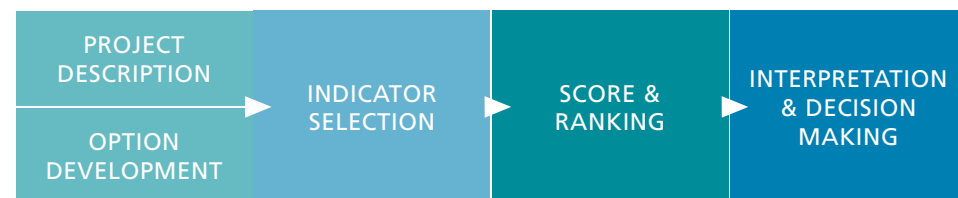
WHAT CAN GOLDSET-SPATIAL OFFER YOU?

Spatial capabilities within GoldSET enhance the ability to provide a robust, cost effective and transparent design tool and decision-making process during all phases of a project cycle.

GoldSET-Spatial is able to perform route corridor and site selection identification and analysis, sustainability assessments, and to identify where conflicting priorities and stakeholders expectations exist. In so doing GoldSET-Spatial aids in the assessment of alternatives and in communicating the impact of various options with stakeholders.

By leveraging our global network of multidisciplinary professionals, we can deploy practical, cost effective approaches to support our clients with their projects.

GOLDSET'S SYSTEMATIC APPROACH TO TRANSPARENT DECISION MAKING



Banner photo (above): Terna SpA



GOLDSET-SPATIAL APPLICATIONS INCLUDE:

Corridors Identification and Analysis

For projects such as power lines, pipelines, roads and railways, but also seismic investigation activities, GoldSET-Spatial is able to identify and evaluate the least cost corridor in terms of technical, environmental, economic and social factors.

Site Selection Identification and Analysis

An integrated approach to address engineering needs, technical constraints, environmental and social concerns by spatial analysis of the environmental costs in the study area. Stakeholders engagement and public participation processes can be incorporated to share the selection of the indicators and the weighting grids to increase the sense of ownerships of the solution identified, as well as identify non technical risks early and avoid lengthy project iterations.

Mitigation and Off Set Compensation Design

By combining our expertise in the design, evaluation and comparison of mitigation or offsets compensation options and sites, in accordance with Business and Biodiversity Offset Programme (BBoP) and sustainability principles, with GoldSET-Spatial, the extent to which a mitigation or offsets compensation option achieves "like for

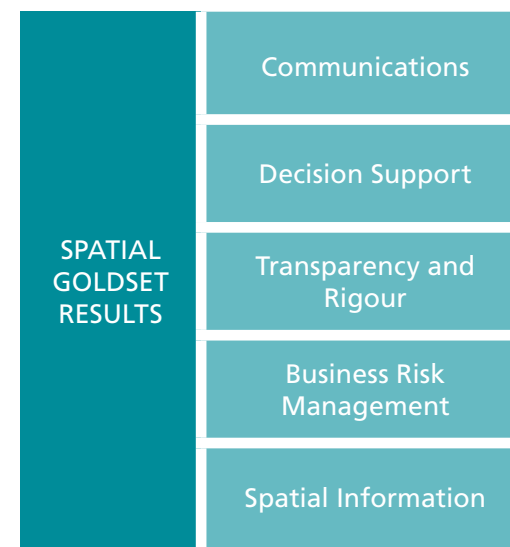
like" mitigation can be spatially evaluated and visually illustrated within the context of biodiversity impacts, ecosystem services, social and economic risks and benefits. In so doing the justification for, and acceptance of, the mitigation or offset compensation is able to be illustrated to stakeholders and regulators, thereby assisting permitting processes and improving the sustainability of projects.

PROJECT EXAMPLE

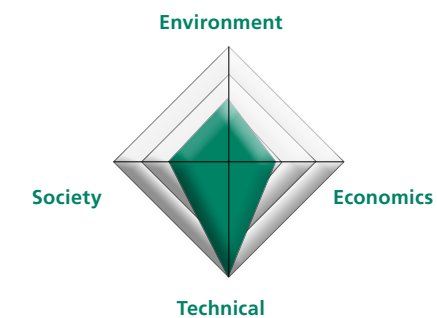
Terna SpA, the Italian national transmission electric grid operator, undertook a multi annual development plan aiming at optimising and upgrading the Italian electrical network. Golder supported Terna by providing automated GIS applications to conduct the identification of potential corridors and by developing the Strategic Environmental Assessment for the development plan. The GIS-based spatial process was instrumental in helping TERNA evaluate the sustainability of the plan (as reflected by technical, social, ecological and economic criteria). The results of the process have been published on the Web GIS site developed by Golder: <http://portalevas.terna.it>.

The Web GIS site has been realised to facilitate the consultation of the development of the national electric network and the dialogue with authorities and other stakeholders.

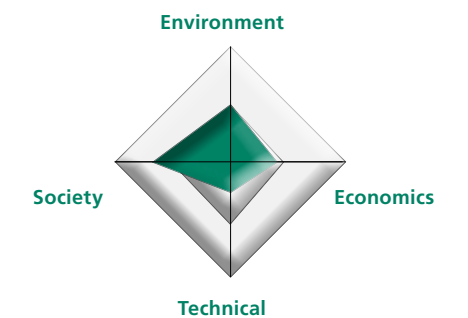
BENEFITS



ENVIRONMENT	57%
SOCIETY	50%
ECONOMICS	44%
TECHNICAL	100%



ENVIRONMENT	52%
SOCIETY	65%
ECONOMICS	44%
TECHNICAL	25%



Visit us on www.goldset.com to learn other ways on how to incorporate sustainability into project planning and design to evaluate project performance against the Triple Bottom Line.

MAKE YOUR BUSINESS DECISIONS ON A SOLID FOUNDATION.
CHOOSE A COMPANY WITH THE TECHNICAL EXPERIENCE AND COMMITMENT
TO SERVICE EXCELLENCE AND SUSTAINABILITY THAT YOU NEED TO BE SUCCESSFUL.

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