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**Environmental
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Benefits of
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**NEW
TECHNICAL
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FOR THE
BURIAL OF
DISTRIBUTION
NETWORKS:
BENEFITS AND
REASONS WHY**

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**NEW TECHNICAL SOLUTIONS FOR THE BURIAL OF
DISTRIBUTION NETWORKS: BENEFITS AND REASONS WHY**

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ABSTRACT: The electricity and telecommunications networks have been characterized in recent years by an important development in particular within Italian urban centers: on the one hand the main telecommunications operators have ventured into the construction of their own infrastructures to host fiber optic access networks on the other hand, the growing demand for electricity from domestic and industrial users is calling for a constant expansion of the distribution network.

Especially in the areas with the highest density of housing, the consequence of these two phenomena is the overlap, of parallel and duplicated networks and the consequent proliferation of infrastructural elements above ground, with evident impacts both aesthetic and functional on urban furnishings and the creation of superfluous architectural barriers.

In the coming years this phenomenon will be steadily increasing thanks to further investments planned for the development of broadband networks (optical fiber and 5G), the spread of electric vehicles and related public charging stations and the adoption of “intelligent infrastructure elements” for the development of Smart City projects.

The purpose of this document is the presentation of possible technical interventions for the burial of infrastructural elements today housed off-road (such as mobile radio cells, distribution cabinets, meters ...) and the consequent advantages deriving from the adoption of these techniques, in terms of:

- Improvement of the impact on urban furniture
- Reduction of obstacles and architectural barriers
- Greater environmental sustainability
- Reduction of the interventions for the laying of the infrastructures and consequent reduction of the execution time of the road works and related costs
- Increase of infrastructure security
- Increased resistance to environmental degradation and vandalism
- Reduction of maintenance interventions
- Increase of infrastructure security