

# CIVIL AND ENVIRONMENTAL ENGINEERING

## MUR DM 118 - Definition of the graphic and alphanumeric contents of a Digital Twin of road infrastructures with new Project Management strategies

<b>Funded By</b>	MINISTERO DELL'UNIVERSITA' E DELLA RICERCA [P.iva/CF:97429780584] Politecnico di TORINO [P.iva/CF:00518460019]
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<b>Context of the research activity</b>	<p>Starting from a clear identification of the LOIN (Level of Information Need) of the road infrastructures for a Public Administration, the objective of the research is to define the standards for the contents of the graphic and alphanumeric data typical of a BIM-based Digital Twin by simulating new Project Management strategies aimed at optimizing the digitization process as a whole: design, implementation, management and maintenance.</p> <p>Progetto finanziato nell'ambito del PNRR - DM 118/2023 CUP E14D23001710006</p>
<b>Objectives</b>	<p>For the new construction works, working in synergy with ANAS, particular attention will be paid to two essential elements: (i) the entire life cost of the infrastructure thinking in terms of Life Cycle Assessment; (ii) environmental sustainability starting from adequate design choices in terms of materials and integration with renewable energy generation systems.</p> <p>For existing works, working in synergy with the Piedmont Region and the Metropolitan City of Turin, particular attention will be paid to an essential element: the safety of existing infrastructures by overcoming the concept of extraordinary maintenance with new strategies of ordinary maintenance only. The methodological approach used will allow the collection, comparison and processing of information in an integrated manner and will lead to the definition of graphic and alphanumeric standards that the PA will be able to use to guarantee an optimal interoperable digital process between the tools and organizational units for process management of carrying out projects.</p>
<b>Skills and competencies for the</b>	InfraBIM, Project Management

