

## EXECUTIVE SUMMARY

The purpose of this document is to set out the requirements and high-level specification of the IT2Rail concept developed as a lighthouse project of the Innovation Programme 4 – IP4 – of SHIFT2Rail<sup>1</sup>. This specification will support the coordination of an integrated application drawing on development activities in IT2Rail technical work packages. This document is built from the IT2Rail Capella engineering model following the Arcadia methodology (please refer to chapter 4.2 or <https://polarsys.org/capella/> for more information).

Following the list of reference documents (section 1) and the introduction (Section 2), Section 3 gives an overview of the IT2Rail concepts by describing the users and contextual features that shape the way in which the IT2Rail solution will be used. Then, Section 4 describes the aims, principles and processes used in Task 7.2.2 (Requirements and concepts definition). Section 5 then describes the functional components required to define a seamless travel application. Section 6 describes the capabilities attached to the functional components. Section 7 describes the architecture of the complete IT2Rail solution, and describes common interfaces required by the architecture.

Taken as a whole, this document provides a holistic, integrated view of how components will work together to deliver a concept that is technically feasible, innovative and centred around traveller needs.

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<sup>1</sup> IP4: IT Solutions for Attractive Railway Services