



RWS UNCLASS

Dutch Cooperative ITS
Corridor project
www.rijkswaterstaat.nl

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Enclosure(s)

memo

Cover Note on documents and releases produced by the Dutch Cooperative ITS Corridor project

Introduction

This Cover Note clarifies the interrelations and dependencies between the respective documents and releases which are (to be) produced by the Dutch Cooperative ITS Corridor project.

Releases

The Dutch Cooperative ITS Corridor project produces and publishes sets of documents, labelled 'releases'. The project has produced release 1 in October 2015 and will release subsequent releases 2.0, 2.1, 3.0 and 3.1 in 2016/2017. The table below gives an overview of the content of these releases.

Document	Release					Type	Level
	1.0	2.0	2.1	3.0	3.1		
Cover Note	-	1.0	2.0	3.0	4.0	Sup	0
Functional Description	1.2	-	-	-	-	Sup	1
Description of the System Concept	-	1.0	2.0	2.0	2.0	Sup	0
(Dutch) Corridor Profile	1.1	1.2	2.0	3.0	3.0	Sup	1
Security Architecture	0.78	0.9	1.0	1.0	1.0	Sup	1
<i>Project (Start) Architecture¹</i>	-	0.9	1.0	1.0	1.0	Sup	1
Integral Safety Plan	-	-	-	-	1.0	Sup	3
<i>Customer Requirements Specification¹</i>	1.0	1.1	2.0	2.0	2.0	Spec	0
System Specification	0.9	-	1.0	-	2.0	Spec	1
Process Tender Specification(s)	-	-	1.0	-	2.0	Spec	2
Requirements Tender Specification(s)	-	-	1.0	-	2.0	Spec	2
Subsystem and Interfaces specifications	-	-	-	-	1.0	Spec	3
RSU-Projectering	-	-	1.0	-	2.0	Spec	3
<i>Mastertestplan¹</i>	-	-	1.0	-	2.0	Inf	1
Human Factors	-	1.0	1.0	2.0	2.0	Inf	1

The table gives the versions numbers of the respective documents in the respective releases. Note that some documents will remain unchanged in a following release. Note also that not all documents are public.

¹ Not public.

Interrelations and dependencies

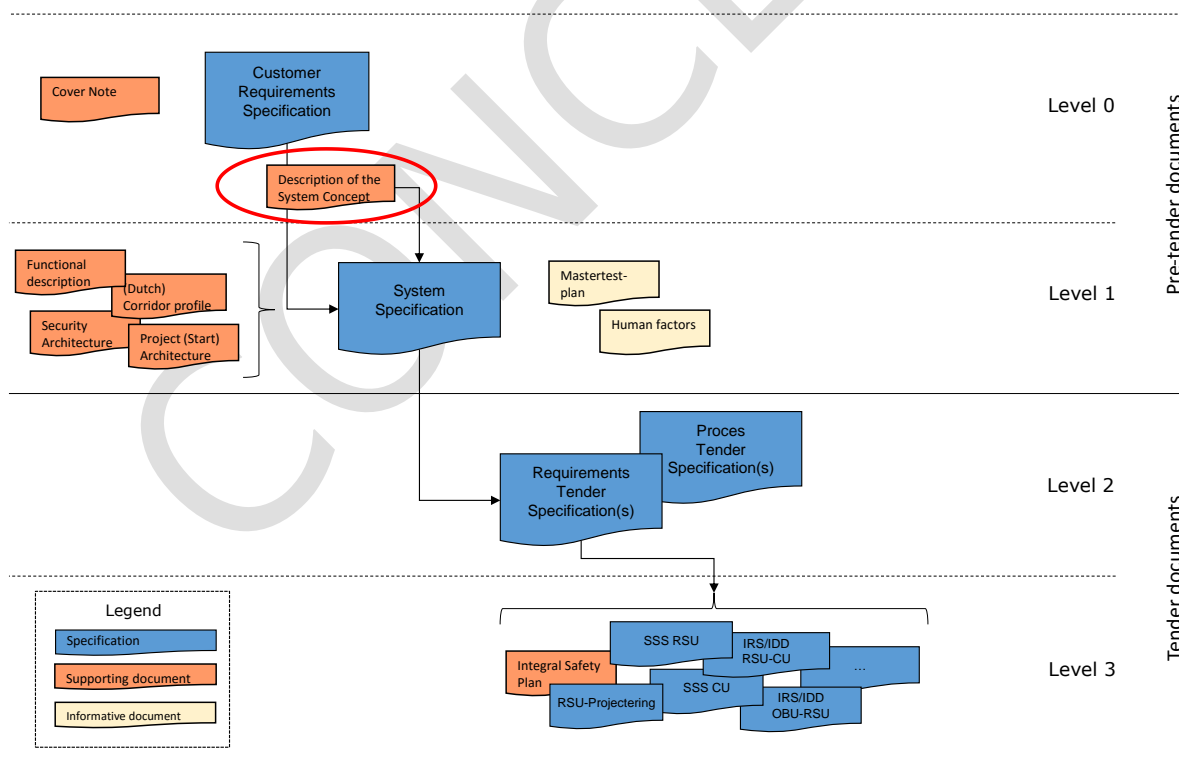
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In the table each document is labelled as either 'Specification' (Spec), 'Supporting' (Sup) or 'Informative' (Inf).

The 'Specifications' are the formal documents which will be used for actual tendering. The specifications therefore have a contractual status. The 'Supporting' documents serve as background for the specifications. They for instance provide explanatory information on choices made. The 'Informative' documents have no direct relation to the specifications but provide further background information on (topics related to) the project.

Additionally the table gives a 'level' for each of the documents. Level 0 is the highest level, the top of the pyramid. Documents on this level are the basis for all other documents. Level 1 is the intermediate system-level. Documents on level 1 provide generic information on the system or project as a whole. Documents on level 2 are more specific and focus on parts of the system (subsystems). Documents on this level form the basis for tendering. Documents on level 3 go further into detail on specific topics, subsystems, components, etc. These level 3 documents are mostly annexes to documents on level 2.

The figure gives an overview of the documents and their interrelations.



Documents

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Cover Note

The Cover Note (this document) is a supporting document on level 0. The Cover Note gives an overview of the releases and documents produced by the Dutch Cooperative ITS Corridor project and clarifies their interrelations and dependencies.

Customer Requirements Specification

The Customer Requirements Specification is a supporting document on level 0. The Customer Requirements Specification (in Dutch 'Klant Eisen Specificatie') is the result of the first step in the process of specifying the Cooperative ITS Corridor System in the Netherlands. The Customer Requirements Specification lists the requirements posed by the actors relevant to the project. It further analyses these requirements and summarises decisions on certain issues and topics. Version 1.0 of the Customer Requirements Specification was the starting point for all subsequent specifications. Version 1.1 and 2.0 of the Customer Requirements Specification are updates which contains additional requirements from additional actors as well as revised conclusions on specific topics based on renewed insights.

Functional Description

The Functional Description is a supporting document on level 1. The Functional Description provides a high level description of the envisaged system. The Functional Description was part of Release 1 but is no longer part of subsequent releases. The role of this document has been taken over by the Description of the System Concept.

Description of the System Concept

The Description of the System Concept provides an overview of the envisaged system. The Description of the System Concept is intended for a broader audience than the System Specification. It provides background information on international standards and choices which are specified in the System Specification and subsequent documents. In other words: the Description of the System Concept *describes* the system whereas the System Specification *specifies* the system. The Description of the System Concept replaces the Functional Description as well as the introductory chapters of the System Specification.

(Dutch) Corridor Profile

The (Dutch) Corridor Profile is a supporting document on level 1. The (Dutch) Corridor Profile describes the specific choices within the standards made for the vehicle-to-roadside communication (OBU-RSU interface). It limits the options which the standards (e.g. DENM, CAM) leave open. The versions (1.1 and 1.2) of the Dutch Corridor Profile provide choices for the Netherlands only. Version 1.2 describes the use of DENM as well as IVI for RWW. The subsequent version (2.0) is intended to include broader choices made together with the AT and DE partners within the Cooperative ITS Corridor project. The choices described in the (Dutch) Corridor Profile document will be further and formally specified in the Interface Specification for the OBU-RSU interface.

Security Architecture

The Security Architecture document is a supporting document on level 1 (and lower levels). The Security Architecture document provides a broad analysis of security objectives, threats and measures. The resulting requirements and design choices are formally specified in the System Specification and other specifications.

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Project (Start) Architecture

The Project (Start) Architecture is a supporting document on level 1. The Project (Start) Architecture puts the Cooperative ITS Corridor system in the context of the overall Dutch traffic management policy, architecture and infrastructure. The Project (Start) Architecture describes the overall architecture on business, application and technical level.

System Specification

The System Specification is the (main) specification on level 1. The System Specification is derived from the Customer Requirements Specification and describes the system as a set of related requirements, a description of the entity in its environment and the design choices made. The System Specification focusses on requirements and keeps design of the system open as much as possible. Design choices are only made when they are basic and required from the offset. In a later stage Rijkswaterstaat may choose to make further design choices itself or may alternatively leave design choices open for the future contractor(s). The System Specification does not yet in any way describe who will realise the subsystems. It is possible that the system as a whole will be contracted to one single party but it is also possible that the system will be subdivided into independently contracted subsystems. Rijkswaterstaat may even choose to realise some of these subsystems itself or may choose to delegate specific system functions to existing systems or organisations.

The System Specification version 0.9 was derived from the Customer Requirements Specification version 1.0. Version 1.0 will contain modifications based on the reviews of version 0.9 and on new insights contained in the Customer Requirements Specification.

Process Tender Specification(s)

The Process Tender Specification(s) is (are) one of the (main) specifications on level 2. A Process Tender Specification specifies the requirements for the interaction between the contracting and contracted party. It specifies the 'how' of the contract. The number of tender specifications will depend on design choices and tender policy. Depending on these choices there may for instance be one tender specification for the system as a whole or, in case the project chooses to tender the roadside and the central part separately, separate tender specifications for RSU and CU respectively.

Requirements Tender Specification(s)

The Requirements Tender Specification(s) is (are) also (main) specifications on level 2. The Requirements Tender Specification(s) is (are) derived from the System Specification. A Requirements Tender Specification specifies the requirements for the result (the output, the product) this contract has to deliver. It specifies the 'what' of the contract. The number of tender specifications will, as for

the Process Tender Specification, depend on design choices and tender policy. The level of detail of a Requirements Tender Specification will depend on what is covered in this specification itself and what in the subsequent Subsystem and Interfaces Specifications. The latter specifications will be annexes to a Requirements Tender Specification.

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Subsystem and Interface Specifications

The Subsystem and Interface Specifications are specifications on level 3. Note that, as for the tender specifications, the number of specifications on this level will depend on design choices as well as tender policy. The Subsystem and Interfaces Specifications will for instance include System/Subsystem Specifications for RSU and CU separately and an Interface Requirements Specification and Interface Design Document for the OBU-RSU interface. Note also that these Subsystem and Interface Specifications are the core of the new 'company standards' of Rijkswaterstaat (in Dutch 'Rijkswaterstaatbrede Afspraken' or 'component-specificaties'). They are the building blocks for the future ITS systems.

RSU-Projectering

The document RSU-Projectering will describe the guidelines for determining the exact locations for RSUs. These guidelines will be based on technical, safety as well as traffic management considerations. Note that these guidelines will at first primarily focus on physical locations for RSUs whereas in a later stage they will evolve into logical guidelines (geonetworking).

Integral Safety Plan

The Integral Safety Plan is a supportive document on level 3. This plan (in Dutch 'Integraal Veiligheidsplan') is a mandatory document within the tendering policy of Rijkswaterstaat. It describes the basic input for safety measures for the contract(s).

Mastertestplan

The Mastertestplan is an informative document on level 1. The document provides an overview of the test strategy as envisaged by the Dutch Cooperative ITS Corridor project.

Human Factors

The Human Factors document is an informative document on level 1. The document describes an analysis of the specific issues related to human factors and contains input for the RWW use-case and recommendations for OBU design choices.