



# APPENDIX 1 - REQUIRE- MENT SPECIFICATION



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## 1. INTRODUCTION

This appendix serves the purpose to specify the requirements the supplier must fulfil to the customer in the form of consultancy in accordance with the framework agreement.

The customer is Banedanmark

In - and in relation to - a delivery agreement, however, the customer is understood as the sole legal entity that has concluded the delivery agreement with the supplier.

The framework agreement includes procurement of consulting services where the consultant's labour is made available to the customer upon request in accordance with the framework agreement.

The framework agreement thus includes the provision of human resources with specific qualifications to perform specific tasks within the scope of the framework agreement's services and duration.

The specific agreements for the provision of consultancy services are made in accordance with the framework agreement, including the conclusion of delivery agreements.

On the basis of concluded delivery agreements, the supplier must provide consultants who, based on the specific task descriptions, can support the customer's internal resources with operational, support, development and education services.

## 2. OBJECTIVES

The customer has the following overall objectives with the conclusion of the framework agreement on consultants; to provide the customer with technical support in the deployment of their ERTMS Signalling Programme, in particular with two next objectives

- definition of the ECTS operational test scenarios for the ERTMS Danish Program, applicable for RO1
- Support testing activities on a daily basis in BDK office and BDK Test Facilities in Denmark (for an average of 4 non-consecutive months of the framework agreements duration) by;
  - attending meetings
  - executing tests
  - executing analyses
  - writing the ECTS operational test report

### 3. ASSIGNMENTS

#### 3.1 Requirement for Assignments

At the customer's request, the supplier will provide consultants who will solve the following tasks:

Requirement 1.	
Category	Requirement
Description	<p>Technical support in the deployment of BDK ERTMS Signalling Programme, with the main objective being the definition and delivery of the ECTS operational test scenarios for the ERTMS Danish Program, applicable for RO1 (Copenhagen-Ringsted)</p> <p><b>This task can be executed in the tenderers office</b></p>

Requirement 2.	
Category	Requirement
Description	<p>Technical support in the deployment of BDK ERTMS Signalling Programme, with the main objective by supporting testing activities on a daily basis in Test Facilities by;</p> <ul style="list-style-type: none"> <li>• attending meetings</li> <li>• executing analysis of ETCS operational tests results and logs</li> <li>• writing the ECTS operational test report</li> </ul> <p><b>This requirement takes place in BDK Office or Test Facilities</b>            This support shall be one person for an average of 4 months spread over the entirety of 2018.            The supplier shall also put the expenses in Appendix 3 for this activity incl. travel and accommodation.</p>

### 4. CONSULTANT CATEGORIES

Requirement 3.	
Category	Requirement
Description	<p>The supplier must provide consultants within the following consultant categories:</p> <ol style="list-style-type: none"> <li>1. Senior Consultants</li> </ol> <p>The requirements for the individual consultant categories are listed below and fall within the following areas:</p> <ul style="list-style-type: none"> <li>▪ Education and experience</li> <li>▪ Technical experience</li> <li>▪ Independent</li> <li>▪ Complexity</li> <li>▪ Business and strategic skills</li> </ul>

#### 4.1 Requirements for senior consultant

Competences	Description
<b>Education and Experience</b>	<ul style="list-style-type: none"> <li>• +10 years of Railway industry knowledge</li> <li>• Has +10 years of proven experience in solving similar / relevant tasks.</li> <li>• Have experience with the relevant systems as well as any modules</li> <li>• Has been updated on the latest market trends within its field of study</li> </ul>
<b>Technical experience</b>	<ul style="list-style-type: none"> <li>• Has in-depth theoretical and practical experience in one or more of the areas/technologies covered.</li> </ul>
<b>Independent</b>	<ul style="list-style-type: none"> <li>• Has authority and responsibility for all aspects of a wide area of responsibility.</li> <li>• Delegates tasks and manages project management.</li> </ul>
<b>Complexity</b>	<ul style="list-style-type: none"> <li>• Solves very complex tasks, including technical, financial and quality aspects.</li> <li>• The work includes the creative development of a wide range of technical and management principles.</li> </ul>
<b>Business and strategic skills</b>	<ul style="list-style-type: none"> <li>• Demonstration of previous experience in performing the same activity;</li> <li>• Demonstration of previous experience in placing in service ETCS Level 2 lines;</li> <li>• Demonstration of previous experience in evaluating ETCS Interoperability;</li> <li>• Demonstration of previous experience in multi-supplier environments (preferable with Alstom and Thales);</li> <li>• Demonstration of previous experience in both lab and field testing;</li> <li>• High proficiency knowledge of UNISIG standards;</li> <li>• Communicates effectively at all levels to different audiences.</li> </ul>

## 5. SPECIFIC REQUIREMENTS FOR THE SERVICES

In this section, the customer's specific requirements for the supplier's services are specified.

### 5.1 Requirements for Language

Requirement 4.	
Category	Requirement
Description	The consultants should be able to communicate in writing and verbally primarily in English.

### 5.2 Requirements for continuous development of consultants' knowledge levels

Requirement 5.	
Category	Requirement
Description	The supplier must ensure that new consultants without previous experience with task execution for the customer, e.g. new employees are introduced to the customer, their systems and solutions as well as work processes in such a way that continuity of delivery quality is ensured and that this knowledge is continuously shared internally with the supplier.

### 5.3 Requirements for documentation

Requirement 6.	
Category	Requirement
Description	The documentation for the work performed, including any changes, must be made available to the customer on a regular basis and deemed to be handed to the customer upon approval by the project owner for the specific task.

### 5.4 Requirements for knowledge sharing

Requirement 7.	
Category	Requirement
Description	The supplier must systematically apply methods of knowledge sharing so that the knowledge generated in connection with the task solution is continuously exchanged between the supplier and the customer.