

CHARM – MARKET CONSULTATION ROUND 2

SUMMARY OF RESULTS

1. Introduction

First of all, the Highways Agency and Rijkswaterstaat would like to thank the suppliers who participated in the Market Consultation by putting effort in evaluating the provided documents and responding on the Questionnaire. The CHARM Team highly values this effort by suppliers.

The CHARM Market Consultation started in August with the publication of a set of documents and a Questionnaire, the possibility for suppliers to visit a TMC in the Netherlands and England and a possibility for a face-to-face meeting with HA/RWS. In total, 31 suppliers responded with a filled in Questionnaire. These results will be qualitatively discussed in this document, and quantitatively in Appendix 1.

2. Key findings

The following results are based on the questionnaire response of suppliers and on the supplier meetings (face-to-face meetings).

2.1 Suppliers' view on CHARM programme

- 2.1.1 All suppliers have returned positive feedback about the programme. They welcome the open attitude of CHARM towards industry very much. Some suppliers mentioned that this Market Consultation should not be the only HA/RWS preparation before going to tender. Further research is required.
- 2.1.2 All suppliers answered that the goals stated in the Business Specification are understandable how CHARM aims to support them. Some suppliers suggest that in later stages, a higher level of detail is required.
- 2.1.3 Most suppliers think the way the Functional Specification support the Business Specification is logical. Some suppliers have suggested less details as the Functional Specification may restrict supplier solutions.

2.2 Available application functionality

- 2.2.1 Based on the information provided by suppliers, many suppliers are able to deliver a part of the specified functionality.
- 2.2.2 Some suppliers are able to deliver (nearly) all functionality themselves or in close cooperation with a few selected partners.
- 2.2.3 For all specified functions there are suppliers to deliver systems. Some functionalities are 'covered' more than others. Please see Appendix 1 for a quantitative indication.

2.3 Available infrastructure functionality

- 2.3.1 The service oriented approach is recognized and building blocks for such an architecture are available at infrastructure level.
- 2.3.2 The web-based approach with separation between the data centre and the control room is recognized and believed possible by suppliers.
- 2.3.3 Virtualization of infrastructure (servers, storage, networks) is recognized, as well by the infrastructure suppliers and the infrastructure users.

- 2.3.4 Cloud solutions are mentioned in the area of data centres, platforms and storage. It is considered feasible that CHARM will host (part of) the traffic management applications in the cloud.

2.4 Procurement options

- 2.4.1 Although the responses were diverse, there are no strong Industry preferences regarding the Procurement options. This gives HA/RWS the opportunity to construct a procurement strategy that meets the technical requirements and that fit the organisations best.
- 2.4.2 Diverse organisations participated in the Market Consultation and provided a response. Based on these diverse responses HA/RWS conclude that both large or general organisations and small or specialized organisations have their own added value and capabilities that can be utilised.

2.5 Migration and Implementation strategy

- 2.5.1 Many suppliers claim that an implementation process takes between 1.5 and 2 years.
- 2.5.2 Some suppliers suggest an incremental implementation, phasing out current systems over time.
- 2.5.3 Some suppliers suggest to build a new TMC in parallel with the existing TMC and a switch after extensive testing and training.

3. Areas for more work

The responses on the Questionnaire and the supplier meetings provided HA/RWS with much highly valuable information. However there are several topics that have need further research by HA/RWS. The topics that HA/RWS identified are described in the following paragraphs.

3.1 Available application functionality

- 3.1.1 Further investigation is necessary regarding:
- I. the application structuring
 - II. the internal interfaces
 - III. the external interfaces
 - IV. the data models.
- 3.1.2 Due to the format of the Questionnaire, several proposed products lacked enough information to assess the feasibility and applicability of the products.
- 3.1.3 Further investigation is required to explore the feasibility and applicability of the proposed solutions/products for an HA/RWS TMC.

3.2 Available infrastructure functionality

- 3.2.1 Further investigation is necessary regarding the Infrastructure Architecture that suppliers are able to deliver. The proposed components lack information with respect to the functionality and applicability to TMCs.
- 3.2.2 Non-functional requirements have not been discussed with suppliers in the Market Consultation. Further investigation is needed at this level.

4. Next steps

After this Market Consultation, the CHARM Team will advise the Governance Board about the possible further options. This response will contain the areas for more work that are mentioned above and possible approaches, such as:

- I. Another Market Consultation, including a full questionnaire;
- II. Additional short questions to discuss less complex issues;
- III. A set of supplier meetings with selected suppliers for more complex issues;
- IV. A workshop with a selection of suppliers.