Using Competitive Dialogue and PCP for the procurement of ITS: Experiences from Highways England

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What is CHARM?

- Starting formally in May 2011, CHARM is a collaboration between Highways England (formerly Highways Agency) and Rijkswaterstaat (RWS) of the Netherlands.

- Each organisation is responsible for improving, maintaining and operating their respective strategic road networks, and they operate in a very similar way. Both organisations currently operate large amounts of cumbersome, bespoke and standalone legacy applications to manage their respective road networks.

- Over a number of years, Highways England and RWS have worked together to share knowledge and approaches to solving problems. The CHARM project was initiated to address a common problem.

- CHARM aims to implement a modern traffic management solution as part of an integrated suite of technologies to maximise network capacity. Through collaboration, the project intended to attract a wider, more capable supplier base.

Overarching procurement strategy

- **CHARM ATMS System Provider**
  - A 2 lotted joint procurement via OJEU Competitive Dialogue under the Dutch Procurement Act (RWS acting as CPB) to deliver a contract per organisation with the same provider (with the assessment determining MEAT across both lots); application to be installed and operational in one Traffic Management Centre (TMC) and two data centre environments per country.
  - Ongoing licenses and third line support.
- **CHARM ATMS Roll-out Contractor** *
  - Roll-out ATMS application to remaining TMCs.
- **CHARM ATMS Operational Service Manager** *
  - Responsible for overall service management.
- **CHARM ATMS Systems Assurer** *
  - Providing independent technical assurance.
- **CHARM Pre-Commercial Procurement**

* denotes separate contracts per organisation.

CHARM ATMS System
Provider Competitive Dialogue

Scope

- Proven COTS software package with architecture "*fit for the future*".

- Replace TMC application estate with a single user interface, with additional functionality integrated to meet specific requirements.

- Initial contract period of three years to fully implement solution into the first TMC and two data centre environments per country.

- Annual licence agreement with 3rd line support, for a maximum of 12 years post-implementation.

- Provision of licenses to other road authorities upon request.

- Roll-out to further TMCs, service management (1st/2nd line support) and technical assurance procured through separate contracts.

What does ATMS do?

- Information provision
- Dynamic traffic management
- Incident management
- Resource management
- Event planning
- Contact management
- Customer configurable

Procurement approach

Selection phase (May to July 2014):

- Aimed to identify 3-6 companies to participate in dialogue.

- PQQ required a self declaration; QMS, ISMS and Corporate Social Responsibility certification (or equivalent); description of COTS package; 3-6 case studies from "*different Highway Authorities for traffic management with similar capability and complexity*" covering organisational fit, support organisation, functional and technical capability.

- 10 responses received and 4 pre-qualified companies identified.

Initial Dialogue phase (August to mid-December 2014):

- National and regional TMC site visits and face-to-face Q&A undertaken.

- Completion of Competitive Dialogue staff training.

- Bidder presentations of Outline Solutions.

- Down-select from 4 companies to 3 on Quality only.

Procurement approach

Final Dialogue phase (mid-December 2014 to mid-April 2015):

- Feedback given on Outline Solutions and dialogue briefing undertaken.

- 6 weeks of detailed dialogue undertaken with 2 out of 5 workstreams (functional requirements and demonstrations of use cases; non-functional requirements; implementation; service management; commercial) running concurrently at any one time.

- Out of hours briefing sessions (Finance Model training, Final Tender form of response training, Pre-Commercial Procurement briefing) also taking place.

- Held further TMC visits.

- Indicative pricing given early February.

- Proof of Concept (PoC) presentations held at RWS test centre mid-February.

- Residual issues discussed via teleconference/video conference.

- Draft Final Tenders received late-March.

Procurement approach

Final Tender phase (mid-April 2015 to mid-August 2015):

- Tenders invited from remaining companies.

- 4 weeks given for Final Tenders (2 received).

- RWS Standstill period completed early-July 2015.

- Highways England Standstill period completed mid-August 2015.

Thoughts on the dialogue

- An incredibly valuable and useful process, giving Operational and Technical teams confidence in the solutions proposed.
- Many benefits realised through the collaboration, including:
  - wider supply base;
  - alignment of requirements and reduced customisation;
  - overall reduction in procurement times and costs;
  - shared testing regimes;
  - a stronger customer position;
  - share best practice.
- A great solution and substantial cost saving.

Lessons learned

- **Planning and logistics**
  - Allow space in the dialogue to reflect on discussions (i.e. both sides of the dialogue teams found the Final Dialogue phase too condensed).
  - Learn lessons from previous dialogues and listen to the experts.
  - Ensure ample time is given to wrap up sessions and stay focused.
  - Ensure the venue is specified correctly and that the venue delivers to the specification.
  - Ensure ample time is given to companies' internal governance.
  - Ensure the dialogue approach makes best use of the time allotted (i.e. site visits to existing customers may have been more economical for assessing functional capability; the Initial Dialogue phase may have been utilised better; some questioned the value of a PoC as it didn't contribute towards assessment).
  - Co-locate wherever possible and practical.

Lessons learned

- **Planning and logistics (cont.)**
  - Ensure the dialogue is planned realistically as to avoid unnecessary re-programming (i.e. our programme changed around 5 times, see example programme changes below).

Phase	Original schedule	Actual schedule
Selection phase	02/05/2014 – 07/08/2014	Achieved
Initial Dialogue phase	08/08/2014 – 09/11/2014	08/08/2014 – 15/12/2014
Final Dialogue phase	10/11/2014 – 22/01/2015	16/12/2014 – 13/04/2015
Final Tender phase	23/01/2015 – 28/02/2015	14/04/2015 – 12/05/2015

Lessons learned

- **Document control**
  - Ensure ample time is given to document production and peer review.
  - Acknowledge that the dialogue, action resolution, Q&A and document production will take place concurrently, and plan the dialogue accordingly.
  - Use fit for purpose requirements management tools.
  - Ensure the data room and due diligence tools are adequately populated and organised correctly.
- **Roles & Responsibilities**
  - Clearly define and publicise roles, responsibilities and escalation procedures from the outset, ensuring discipline leads have the appropriate clarity, authority and tolerances.
  - Early relationship building sessions help harness a collaborative and open environment.

Lessons learned

- **Procurement process**
  - Ensure great care is given to issuance of agendas and minutes.
  - Ensure sessions are focused and companies are given ample time to prepare.
  - Share conclusions and positions reached with companies via an iterative process to measure progress.
  - Ensure commercial, technical and operational representatives (with the correct blend of permanent and temporary staff) with the appropriate level of authority are engaged early in the project and attend each session.
  - Ensure the tender documents and related processes (Q&A, assessment) are proportionate and fit for purpose (i.e. some questioned whether inclusion of retained cost and risk adjustment within financial assessment was proportionate; some questioned whether the PQQ discouraged SME participation).
  - Ensure the contract schedules are proportionate and fit for purpose.

Lessons learned

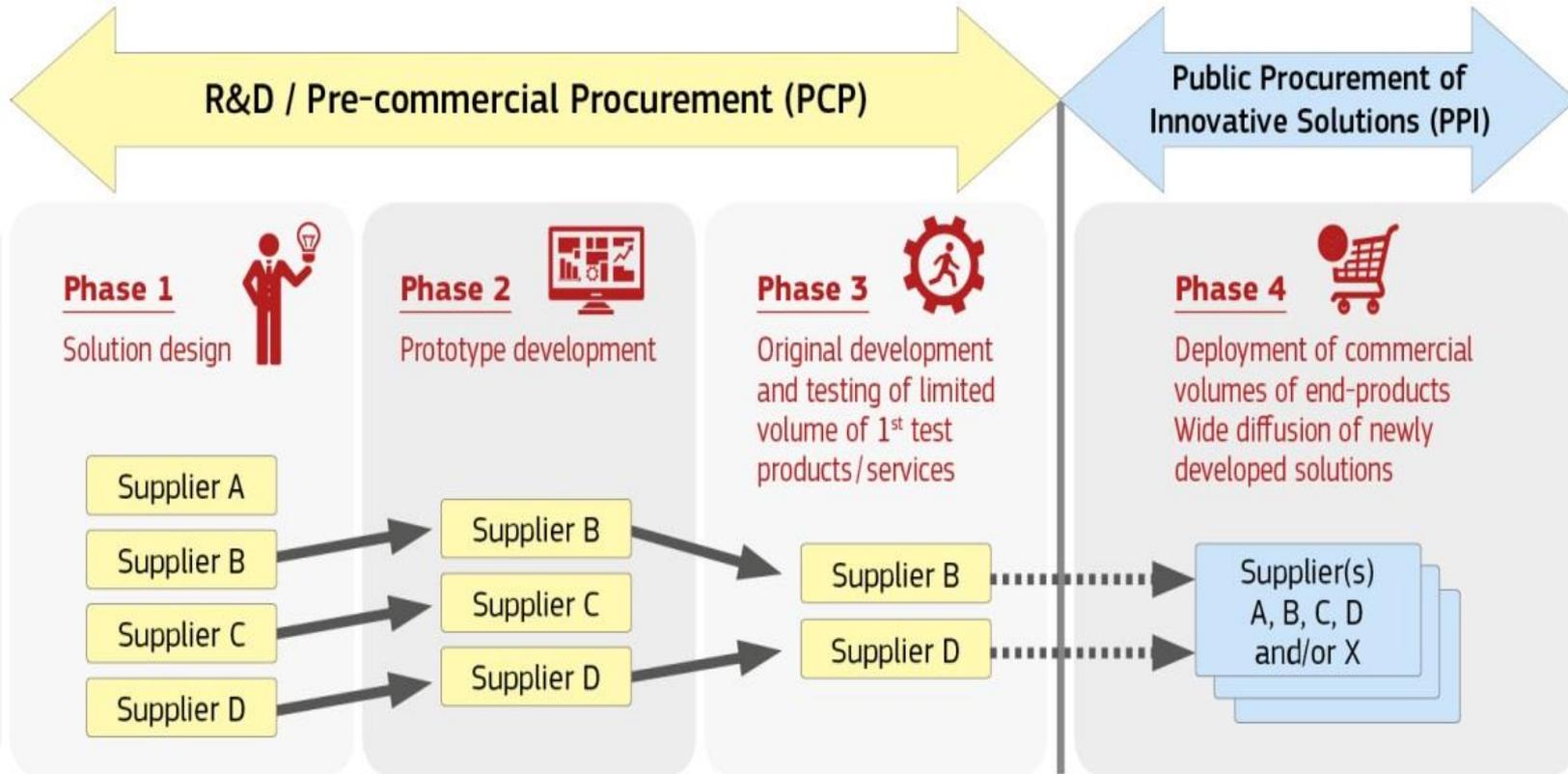- **Procurement process (cont.)**
  - Don't assume all companies understand your current operational landscape; ensure ample time is given for due diligence.
  - Acknowledge that not all project team members will have experience of undertaking procurement, so make sure all processes are clearly understood.
  - Refrain from defining too much of the overall scope at the outset of the Competitive Dialogue.
  - Ensure market engagement targets all required capabilities.

CHARM Pre-Commercial Procurement

Scope

- CHARM PCP aims to create new modules for the CHARM architecture that correspond to three sub-challenges that form part of the overarching challenge shared by the Belgian, Dutch and English highway authorities.

- 3 challenges/lots:
  - Challenge 1: Advanced distributed network management;
  - Challenge 2: Detection and prediction of incidents;
  - Challenge 3: Support of cooperative ITS functions.

- CHARM PCP consists of 3 phases. The number of companies is reduced throughout the phases as a result of competition between companies.

- Each of the 3 phases consists of one or more of the following:
  - A mid-term demonstration and/or an end of phase demonstration;
  - A feasibility report and/or an end of phase report (which was formally assessed using MEAT, and determined which suppliers proceeded to subsequent phases).

Process

R&D / Pre-commercial Procurement (PCP)

Public Procurement of Innovative Solutions (PPI)

Phase 0
Curiosity Driven Research

Phase 1
Solution design

Phase 2
Prototype development

Phase 3
Original development and testing of limited volume of 1st test products / services

Phase 4
Deployment of commercial volumes of end-products Wide diffusion of newly developed solutions

Supplier A
Supplier B
Supplier C
Supplier D

Supplier B
Supplier C
Supplier D

Supplier B
Supplier D

Supplier(s) A, B, C, D and/or X

Key milestones

- **September 2012:** Grant agreement.
- **September 2013:** Phase 1 competition starts.
- **February 2014:** Framework agreements awarded to 11 companies.
- **October 2014:** Phase 2 competition starts.
- **April 2015:** 8 successful companies commence Phase 2.
- **February 2016:** Phase 2 demonstrations.
- **June 2016:** Phase 3 competition starts.
- **August 2016:** 6 successful companies commence Phase 3.
- **May 2017:** Phase 3 demonstrations.
- **August 2017:** PCP concludes.

Lessons learned

- This can be a very complex procedure - share conclusions and positions reached with companies via an iterative process to measure progress, and let them know what happens in each phase and after PCP. Have regular face-to-face sessions to build relationships and understanding. Ensure companies are given ample time to prepare.

- Ensure time is allocated for team building within your PCP consortium.

- Where a PCP is linked to a bigger programme, ensure you allow for sufficient float within the PCP.

- Ensure that proposed PCP deliverables are technically achievable at the earliest stage possible.

- Pay attention to necessary arrangements regarding confidential information from stakeholders at the start of the procurement procedure to prevent difficult situations with companies.

- Consider accepting more companies in phase 1 as to increase competition in subsequent phases.

Lessons learned

- Clearly define and publicise roles, responsibilities and escalation procedures from the outset, ensuring discipline leads have the appropriate clarity, authority and tolerances.

- PCPs can span a number of years – ensure you have sufficient resource, capacity, capability and succession plans.

- Engage with the EC and other road authorities throughout.

- Ensure the assessment procedures are proportionate and fit for purpose (i.e. some questioned whether we had too many assessment criteria; some questioned whether price had too a heavy weighting).

Questions?