ICBWG Guide on Procurement of MRTD-related Systems
Introduction to the What and the Why of the Guide

Markus Hartmann

Chairman, Sub-Group Procurement Guide, ICAO ICBWG
at ICAO Regional Seminar, Madrid, Spain

25 June 2014

ICAO Implementation and Capacity Building Working Group

We help States to implement new ICAO TRIP right.

- Established in May 2008, chaired by David Philp, NZ
- Our targeted outcomes for 2014-2016 are:
  - Documents can be easily used and validated
  - Travellers are effectively linked to secure document that presents a credible and authentic identity; and
  - Investments in MRTD-related technologies balances security with facilitation and drives value

So many points to watch planning an MRTD project!

Our Mandate:

TAG20, WP22 endorsed initiatives to promote good practice in procurement of MRTD related systems:

Documents

Enrolment & Issuance systems

Border Control

International Civil Aviation Organization

WORKING PAPER

TAG-MRTD/22-WP/25
22/04/14

TECHNICAL ADVISORY GROUP ON MACHINE READABLE TRAVEL DOCUMENTS (TAG/MRTD)

TWENTY-SECOND-MEETING

Montréal, 21 to 23 May 2014

Agenda Item 3: Activities of ICBWG

ICBWG Guidance on Procurement of MRTD-related Systems

(Presented by the ICBWG)

1. INTRODUCTION

1.1 The purpose of this working paper is to outline an interim report of ICBWG's intention for providing advice and guidance on the procurement of MRTD-related systems (e.g. (e)passports, civil registry systems and inspection systems for border control).

1.2 An initial working paper (TAG-MRTD/20WP/22) introducing this idea had been endorsed by the TAG at their twentieth meeting in Montréal, 7 to 9 September 2011.

1.3 Members of the ICBWG had given presentations about good practise of procurement at several ICAO international and regional seminars. A sub-group to develop the guide was established at the Ninth meeting in Dar-es-Salaam, Tanzania, in May 2013.

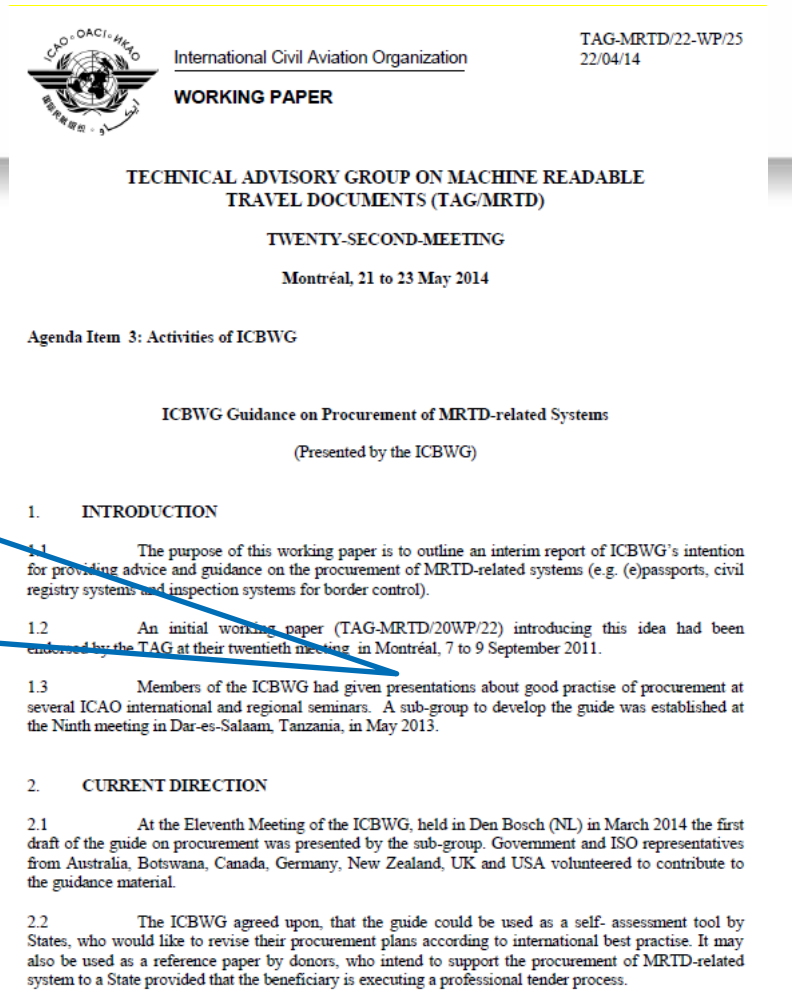
2. CURRENT DIRECTION

2.1 At the Eleventh Meeting of the ICBWG, held in Den Bosch (NL) in March 2014 the first draft of the guide on procurement was presented by the sub-group. Government and ISO representatives from Australia, Botswana, Canada, Germany, New Zealand, UK and USA volunteered to contribute to the guidance material.

2.2 The ICBWG agreed upon, that the guide could be used as a self- assessment tool by States, who would like to revise their procurement plans according to international best practise. It may also be used as a reference paper by donors, who intend to support the procurement of MRTD-related system to a State provided that the beneficiary is executing a professional tender process.

Our Sub-Group:

- Janet Curran, Australia
- Tony Dean, ISO UK
- Markus Hartmann, ISO Germany, (Chair)
- Fons Knopjes, The Netherlands
- Neo Corneliah Lepang, Botswana
- Dwight MacManus, ISO Canada
- William F. Seamann, USA



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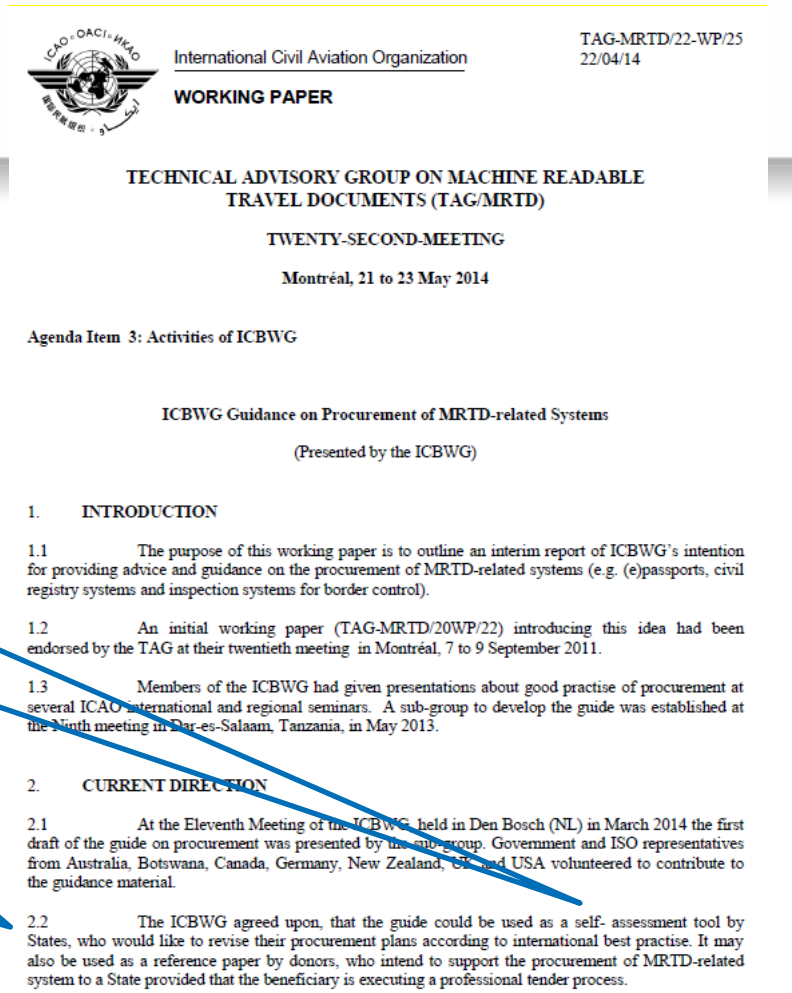
Purpose of the Guide:

- Self-Assessment Tool for States planning procurement
- Reference paper for donors, supporting States in need

We have NO intention to:

- Provide technical specifications
- Provide legal contracts
- Making reference to vendors or products



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Approach:

- Focus on specifics of procuring MRTD related systems
- Making reference to generic procurement guidance materials or national law
- Identify synergies with ICAO Procurement Section, Technical Cooperation Bureau (TCB)

2.3 The guidance material is currently structured into two parts. The main body outlines the steps of good procurement such as a) defining needs b) preparing tender process c) evaluating bids d) awarding contract e) managing change. The annexes include a list of references of other guidance material on procurement and a so called Procurement Tip Sheet, covering a list of practical tips and lessons learned derived from actual case studies.

2.4 The authors of the guide intend to focus on the specifics of procuring MRTD related systems, while descriptions of generic procurement procedures are kept at a minimum. References to other procurement guidance material should compensate for any shortfalls.

2.5 The ICBWG identified synergies with ICAO's Procurement Section, which operates within the Technical Cooperation Bureau (TCB). ICAO's procurement section is currently managing a large number of projects for procurement of equipment and services that range from radar systems, communications, runway lighting, aviation security equipment, feasibility studies and airport/infrastructure development. MRTD-related equipment and services are meanwhile also covered by the Procurement Section.

2.6 ICBWG proposes to work with ICAO's Procurement Section to develop an approach that leverages and aligns with their current services both practically and strategically. This collaborative approach will be of mutual benefit to both groups, and will ultimately provide an avenue for States to channel their MRTD procurement needs through ICAO.

ACTION BY THE TAG/MRTD

The TAG/MRTD is invited to:

a) Note and approve the draft procurement material developed by ICBWG to date.

b) Approve in principle the ICBWG's ongoing work with ICAO Procurement to develop a collaborative approach to the provision of MRTD-related procurement guidance material and advice.

— END —

Procurement Section

The Procurement Section, comprising of the Technical Support Unit and the Procurement Unit, is responsible for the provision to Technical Co-operation projects of equipment, supplies and sub-contracts services, in accordance with approved specifications and purchasing procedures. The Section's work is focused on:

- investigation of sources of supply
- Obtaining price quotations
- Negotiations with suppliers on price and delivery;
- Preparation of contracts;
- Arranging of documentation, insurance and shipping, monitoring of the installation and commissioning of procured equipment

Role and Functions of the Procurement Section

Structure of the Guide

Part 1: Outlines the steps of good procurement

Part 2: References to other guidance materials and "Procurement Tip Sheet"

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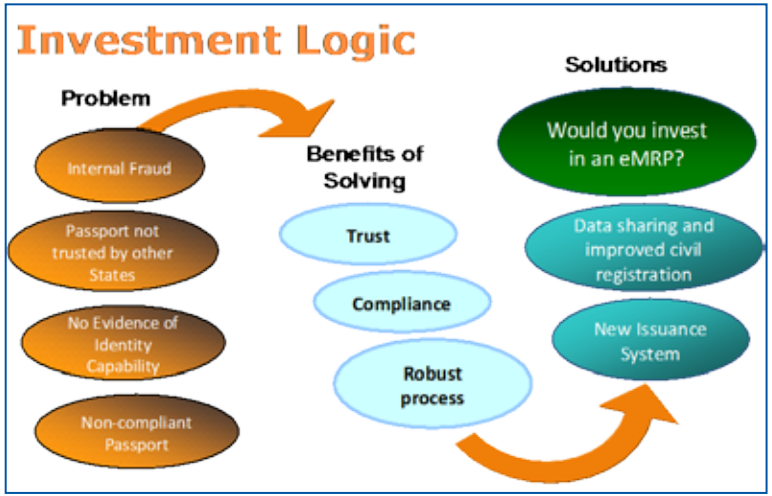
Step 1: Defining Needs

- Start with thorough self-assessment of current situation, asking the right questions, using other ICAO guidance materials



4 Steps in Procurement

4.1 Defining Needs

States and their authorities engaged with MRTD related systems are acting upon objectives derived from the States responsibility to enable their citizens to travel to other countries as well as to receive genuine and welcomed travellers at their borders. They are facing the fundamental challenge to identify the non-legitimate travellers from the majority of legitimate individuals. Authorities continuously are trying to fix issues they discover in their legacy systems or are acting upon a future vision of their identity management. All investments in MRTD systems must serve this purpose in general. At the same time authorities are obliged to use tax payers' money with great care.

Buying e.g. an 80kb chip for a passport or a biometric e-gate must be considered as a tool only. It has no purpose of its own. Vendors are selling products they are offering. It is the authorities' responsibility to make sure that these products will serve their needs.

Therefore it is paramount to any MRTD related procurement to start–with a thorough assessment of the current situation. The area to search for is not technology related to start with. Most of the time authorities have to start looking at their internal processes in the areas of:

- Generating and managing civil status of citizens;
- Document based identity verification at borders and other public of private use cases;
- (Internal) fraud in the issuance and/or verification processes of MRTDs;
- Lack of trust from Visa issuing states in the issuance process;
- Non-compliance of MRTD to latest international standards e.g. ICAO;
- The cost effectiveness of legacy processes and systems.

For this assessment the authorities may benefit from various guidance materials provided by ICAO such as the:

- Guide for Assessing the Security of Handling and Issuance of MRTDs;
- Guide Towards Better Practice in National Identification Management;
- Document 9303 MRTD.

Having identified the roots causing the challenges, the authority then needs to identify the targeted outcome expected from new MRTD related system. Subsequently a comprehensive list of requirements should be derived. The requirements should be formulated in a well-structured manner, making sure that they can be understood clearly also by third parties. Good requirements are: correct, unambiguous, complete, consistent, ranked for importance, verifiable, modifiable and traceable. Following standards such as RFC 2119 and IEEE 830 structuring requirements is recommended, and the authority should have a solid understanding of other standards being cited. All requirements together should cover all the identified needs. For large and complex projects the authority may invest in developing model-based system architecture designs [MBSA]. Similar to blueprints of buildings, the IT based model allows the authority to check upon the completeness and correctness of all requirements identified. The adaptation of standards such as ISO Reference Model of Open and Distributed Processing [ISO RM-ODP] could help in developing the requirements specifications. The following figure illustrates the so called "Investment Logic" to be followed[2]:

2. Step: Preparing Tender Process

- Procurement Plan,
  for internal project planning
- Tender Document,
  to be issued to the market

Drawing attention to MRTD related aspects:

- Engaging all stakeholders
- Internal Work Packages
- EOI/RFP
- Compliance and alternative solutions
- Contract
- Proof of Concept

The **Procurement Plan** – being for internal use only- explains *how* the procurement is to be undertaken, covering areas such as:

- a description of the procurement;
- the evaluation criteria;
- the type of procurement process to be used;
- a probity plan, if appropriate;
- governance arrangements;
- risk assessment; and
- indicative time-lines.

The **Tender Document** – being issued to the market - provides the 'ground rules' for the evaluation of submissions. It describes to the potential suppliers the specifics of the procurement, the manner in which submissions are to be forwarded to the agency and how the submissions will be evaluated. An indicative list of elements which can be included in a request document includes:

- a description of the procurement;
- conditions for participation;
- operational concept,
- detailed requirements specification
- type of delivery
- evaluation criteria;
- process rules; and
- a copy of the draft contract.

Looking at the procurement of MRTD related system ICAO would like to draw special attention to the following points.

Engaging all stakeholders

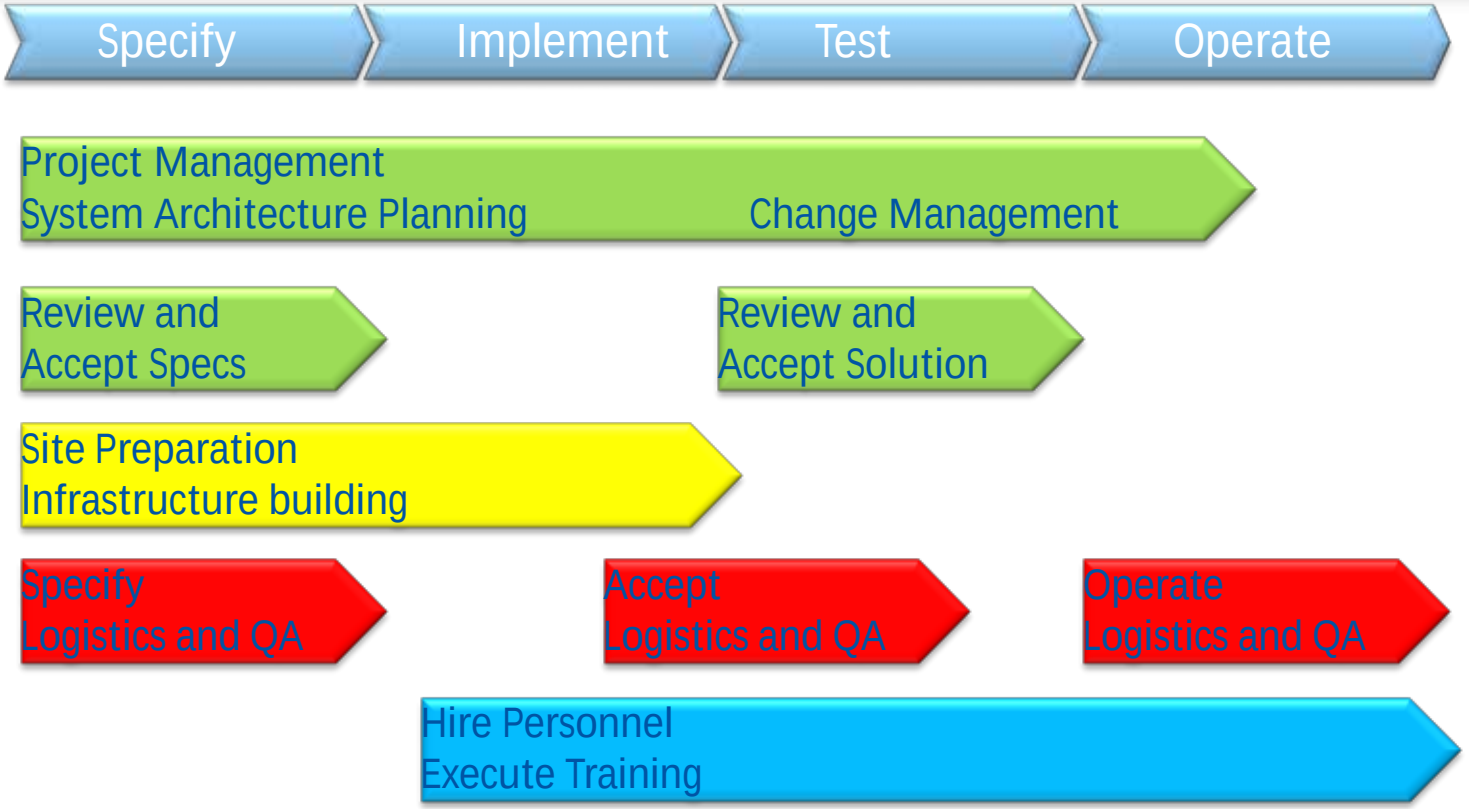
An effective procurement process will normally require the contributions from multiple stakeholders or departments (e.g. Ministries of: Interior, Justice, Foreign Affairs etc.)within the government, covering sectors such as: finance, legal, communications, operations, policy, and information technology.

Often, subject matter experts can be found in other departments who are directly or indirectly related to the MRTD-related product or service being sought (e.g. the border officer who will ultimately inspect a new MRTD document being tendered). Unexpected hurdles can be avoided by identifying and engaging the key stakeholders as well as establishing their role in the process as early as possible.

Internal Work Packages

Even if the authority is tendering for the delivery of a turn-key project, there will always remain some work packages for the authority to manage internally. Buildings hosting personalization machinery may need to be adapted to accommodate environmental requirements necessary to operate sensitive machineries such as laser engraving equipment. Operating a Public Key Infrastructure (PKI) requires a new skill set from operating officers. Maybe people with these skills need to be trained or hired. Often MRTD related projects are delayed because authorities did not plan for these internal work packages well in advance. Authorities should not underestimate the impact and complexity of these work packages. The

Project Example: Internal Work Packages



3. Step: Evaluating Bids

- By multidisciplinary team, balanced in terms of hierarchy and ranks
- Types of criteria: ranked and weighted
- Proposing alternative sequence of evaluation steps
- Promoting ICAO events & test schemes for validating vendors' capabilities

4.3 Evaluating Bids

Bids should be evaluated by a multidisciplinary team covering different subject matter expertise, such as technical, business processes, operational, security, commercial, legal, project management. The team should represent all stakeholders involved in the decision making process, including technical subject matter experts and business representatives. It should also be balanced in terms of hierarchy and ranks within the team so that the evaluation process cannot overly influenced by one individual.

The general the evaluation should cover the following aspects:

- Preliminary examination basing on responsiveness to tender document etc and eliminating those not qualified
- Technical bid evaluated against technical bid criteria and preparing a technical the strengths and weaknesses of the bids
- Cost evaluation/determining whether the bids exceeds budget or otherwise, undertaking possible negotiations where necessary

The evaluation in detail should cover each of the a) formal/legal[6], b) technical and c) financial aspects. The evaluation should be based on the compliance matrix. Each requirement may be graded as a) mandatory or b) recommended. All mandatory requirements must be fulfilled in full. Bids which are not compliant may not be evaluated any further. Key requirements should be given weighting criteria. The bidder who offers the best responses for those criteria wins the technical evaluation.
Notwithstanding such a rational decision making approach, the evaluation teams should also leave room for "gut feeling" contributions, such as "do we really want to work with these people?". Such criteria may be discussed within the team in moderated workshops or after the presentation to the evaluation team, calling for the "overall impression" on the bidder. The following figure illustrates feasible steps of an evaluation process[7].

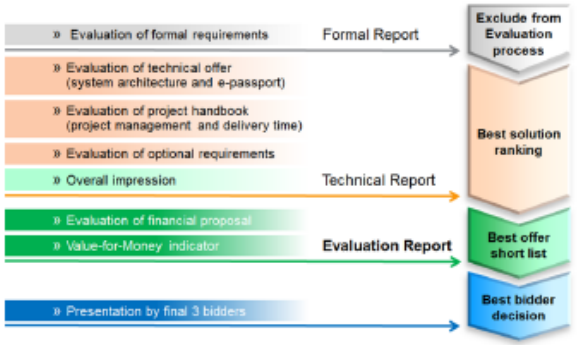


Figure 2: Sample of an evaluation process

[6] With the "formal / legal" evaluation the evaluation team is checking if the bid is following requirements of the RFP about the format, size and legal eligibility of the bid document

4. Step: Awarding Contract

- Main legal aspects to be covered
- Focus on MRTD related processes e.g. Quality control, Acceptance testing,

5. Step: Managing Change

- Publish change of the MRTD document
- Process change of the MRTD system

To achieve these multiple objectives, the contract needs to be properly developed and negotiated with due and timely consideration given to key issues. Besides the generic components of a technology related contract the following key elements for procuring MRTD related systems need to be considered:

- Warranty periods for MRTD document need to be equal to the document's validity period;
- Quality control procedures must ensure the quality of the document and the stability of the production process;
- Test and acceptance procedures shall clearly define under which conditions delivery milestone are fulfilled, initiating payments and transfer of title and risks;
- Change of technologies (e.g. new chip generation) must be introduced within a defined process;
- Vendor must ensure his capacity to supply, within a business continuity obligation;
- Vendor must allow the authority to audit their supply chain, including their major sub-contractors within a mutually agreed timeframe.

After contract signing, both parties shall make the contract (at least those parts covering operational procedures) available to the project team, who shall base their work upon the agreed rules and regulations.
In order to keep pressure on the bidder, authorities might consider negotiating with the last two shortlisted bidders in parallel.

4.5 Managing Change

MRTD solutions often are planned for a period of about 10 years. It is very likely that either party may request a change to the agreed terms and conditions. This could be because new security risks are arising or because a technology change needs to be accommodated.

In any case, in particular for MRTD related project, it is of paramount importance that any change is managed within a well-defined change management process. MRTD documents once issued remain valid until their expiry date. New versions of documents must be clearly specified. Changes in the document itself are best avoided, but if necessary must be communicated to all ICAO member States.

However also between the supplier and the issuing authority any change needs to be well processed, as it might cause unexpected impact in a technical or commercial manner.
Changes need to be well documented, which includes the amendment of solution specifications and process descriptions. The contract needs to cater for a process on how the amended specifications become an integral part of the supply contract.

5 Appendix

5.1 Procurement Tip Sheet

The "Procurement Tip Sheet" (see table added at the end of this document) has originally been provided by the Australian Governments Department of Foreign Affairs and Trade (DFAT). The tips should provide pragmatic ideas on points to watch during a procurement process. This table shall become a living document, where members of the ICBWG Procurement Sub-Group will add tips to procure MRTD systems regularly. Government authorities are welcome to share their own experience within their MRTD related procurement processes with the ICBWG, proposing new entries to the Tip Sheet. Please email to ICAO MRTD Secretariat: ICAOTRIP@icao.int

Example: Test Plan to Contract

Test Plan and Test Specifications

	Functionality	Security	Durability
Processes	Bespoke	ISO	
Systems	Bespoke	ISO	ISO
e-passport	ICAO		ICAO

Test Report

MACHINE READABLE TRAVEL DOCUMENTS

TECHNICAL REPORT

DURABILITY OF MACHINE READABLE PASSPORTS

Version: 3.2
Date: 2006-00-00

Approved by authority of the Secretary General

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Contract Schedule

Annex 5
Implementation and Acceptance Phase Documents List

Appendix 5.2
- References to other Guidance Materials

Appendix 5.1
- Tip Sheet:
  to be extended list of points to watch

5.2 List of References to other Guidance Materials

Botswana Government	PUBLIC PROCUREMENT AND ASSET DISPOSAL REGULATIONS of the Government of Botswana: Available upon request to ICAO ICBWG
DoFT	Australian Government's Department of Finance and Deregulation: Commonwealth Procurement Guidelines: http://www.finance.gov.au/publications/fmg-series/docs/CPGs-2008.pdf
EU	Public Procurement in the EU – rules and guidelines http://europa.eu/business/public-contracts/index_en.htm
ICAO	Guide for Assessing the Security of Handling and Issuance of MRTDs http://www.icao.int/Security/mrtd/Pages/Assessment-Guide.aspx
ICAO	Guide Towards Better Practice in National Identification Management (draft) http://www.icao.int/Security/mrtd/Documents/Forms/AllItems.aspx
ICAO	Document 9303 MRTD http://www.icao.int/Security/mrtd/Pages/Document9303.aspx
World Bank	World Bank Procurement Policies and Procedures
WTO	World Trade Organization: Agreement on Government Procurement (AGP 1994); see http://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm

APPENDIX 5.1.

PROCUREMENT TIP SHEET

Possible Issue	Suggested Treatment
Risk Assessment • Risk assessment and risk mitigation strategies can sometimes be treated as an academic exercise. Failure to properly scope/cost risk likelihood and consequence, and draft tender and legal documents accordingly can increase the risk of project failure.	**Undertake a genuine risk assessment** • The inherent nature of risk cannot predict unexpected events; however, the benefit of gaining a strong understanding of likely risks (and associated costs) positions an Agency to draft tender requirements and legal documents accordingly. This provides protection of the Agency's interests, and attributes contractual liability to the appropriate party. Constructing a strong legal instrument/platform to support the requirements helps to engender project delivery success.

Invitation for contribution

- Member States and associated organizations are welcome to share their best practices of procurement with the ICBWG sub-group Procurement

ICAOTRIP@icao.int

Thank you for your attention

Markus Hartmann
ISO Germany, NIA 17.3, MRTD
Managing Director of HJP Consulting GmbH, Germany
markus.hartmann@hjp-consulting.com