



International Civil Aviation Organization

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on ICAO MRTDs, Biometrics  
and Security Standards

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# Implementing eMRTD Projects: Points to Watch

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# Agenda

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- Introduction
- Initiating
- Planning
- Procuring
- Implementing
- Approving
- Operating
- Conclusion

# Introduction

## What are you looking for?

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- e-passport?

**OR**

- passport with chip?



# Introduction

## eMRTD projects are complex!

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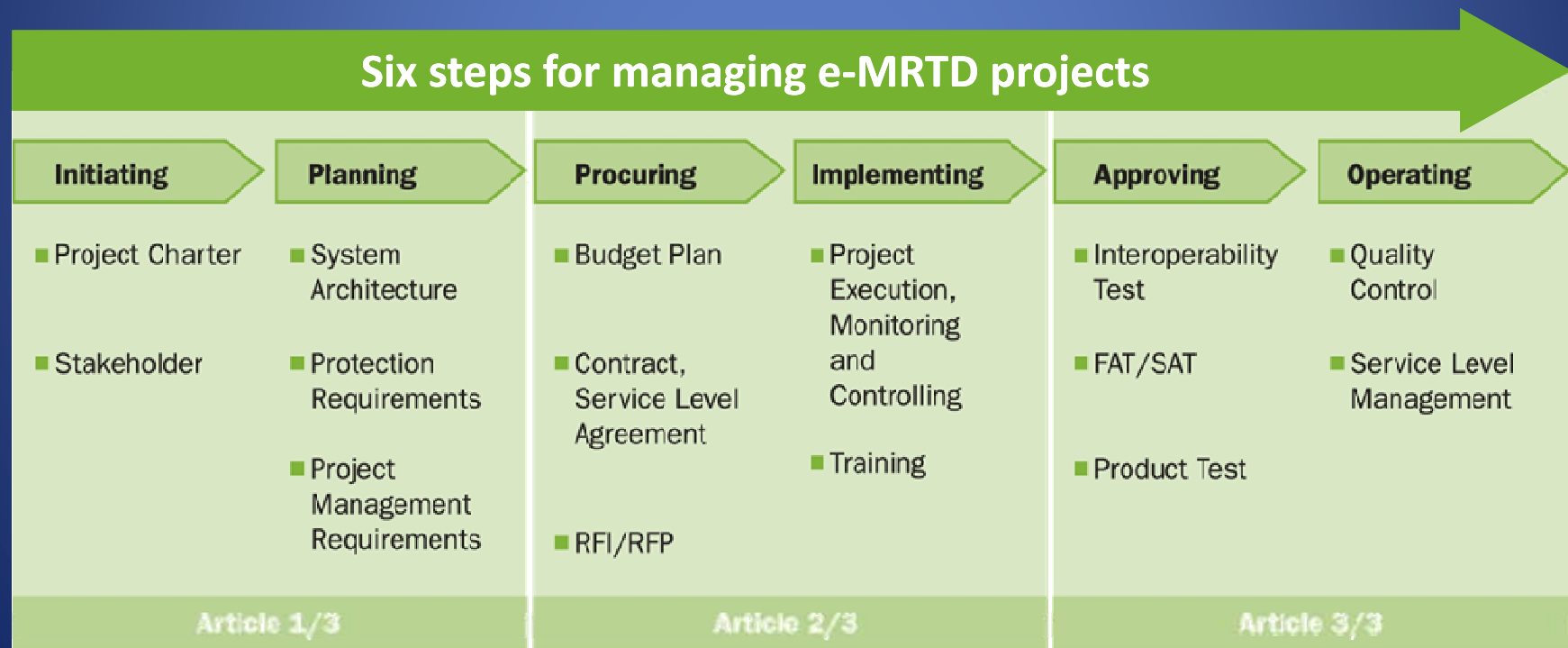
**Project managers have many points to watch:**



# Introduction

## Six steps for managing eMRTD projects

- Generic project management skills needed
- eMRTD systems expertise required





# Initiating

## All stakeholders must be addressed

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**Better to involve all parties from the start:**

- Who is in charge?
- Who is involved?
- Who is to be informed?



# Planning

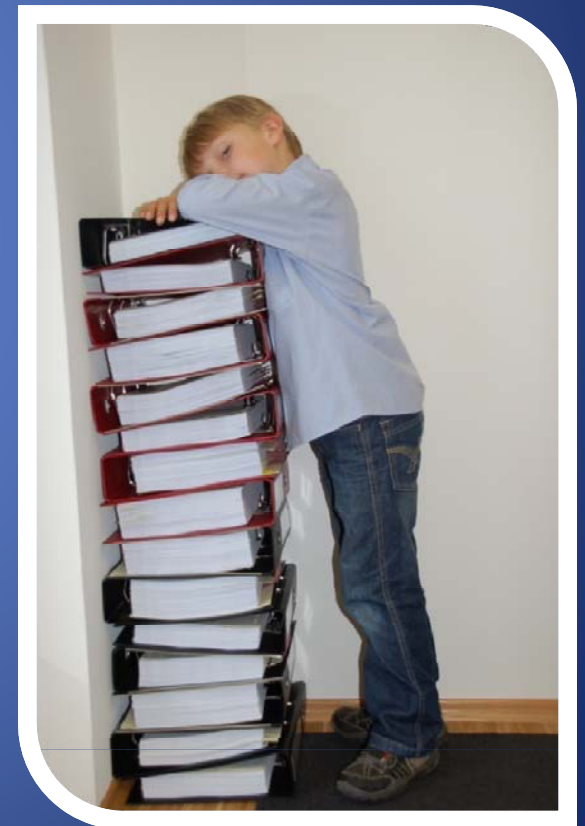
## Scope Statement forms the basis

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### Requirements specifications should cover:

- System architecture
- Protection requirements
- Project management

**Don't forget  
the “internal work packages”!**



# Planning

## Structuring sound requirements

### Requirements need to follow standards:

- REC2119: Using key words, e.g. MUST, SHOULD, MAY
- ISO 10646-2: Semi-formal language for IT requirements

Unique  
identifier

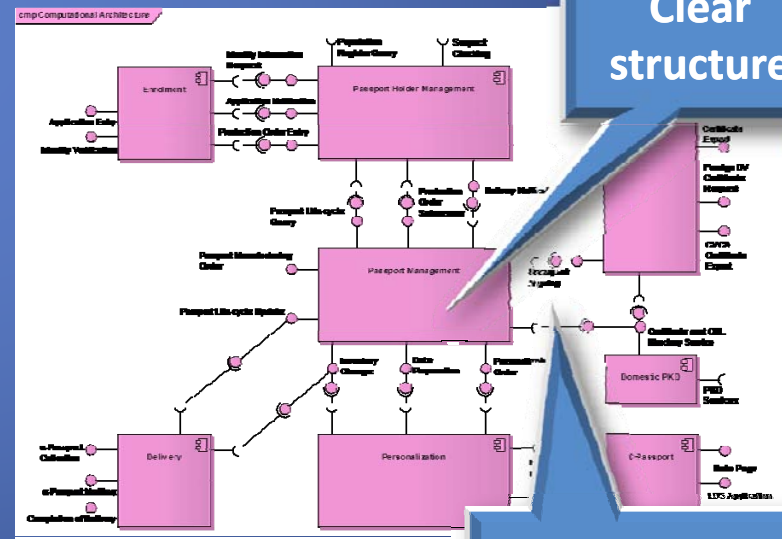
PM123\_M

The Passport Management  
System **MUST** interface with  
the National PKD System

Key word

Semi-formal  
language

Clear  
structure



Unambiguous  
interfaces



# Procuring Selecting the best value for money

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## Two steps to focus our evaluation efforts

- Request for Information (RFI)
  - Shortlist the best suppliers
- Request for Proposal (RFP)
  - Compare solutions against requirements

**Ensure you obtain several offers to compare!**



# Procuring

## Proposals need compliance matrices

→ Let the supplier prove compliance with your requirements: to the point – no blah-blah!

Key Word

| Req. ID | Comp-<br>liant | Partially | Not<br>compl. | Explanation or reference by supplier   |
|---------|----------------|-----------|---------------|--|
| PM456_R |                | X         |               | <b>Explanation:</b> The passport management system <b>WILL</b> control and manage the lifecycle of the e-passport from issuing to delivery, using IBM CRM base.<br><b>Reference:</b><br>- Chapter: A4.1 Overview, Page: 56 |
| PM123_M | X              |           |               | <b>Explanation :</b> The passport management system <b>WILL</b> download all certificate material from ICAO Public Key Directory via LDAP interfaces.<br><b>Reference:</b><br>- Chapter: A4.2 ICAO PKD, Page: 95           |

Suppliers  
response to  
each Req. ID

Unique  
identifier

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10

# Contract

## Vital book of rules for both parties

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**Contracts are NOT made for lawyers but for Project Managers!**

- Who? => Supply chain
- What? => Scope of Work
- How? => Working rules
- => Testing procedures
- Change? => Change Control
- Fail?   => Legal proceedings





# Approving Qualify eMRTD using ICAO Tests

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**ICAO provides test standards  
on e-passport testing:**

- Durability
- RF Protocol, Layer 1-4
- RF Application, Layer 6-7

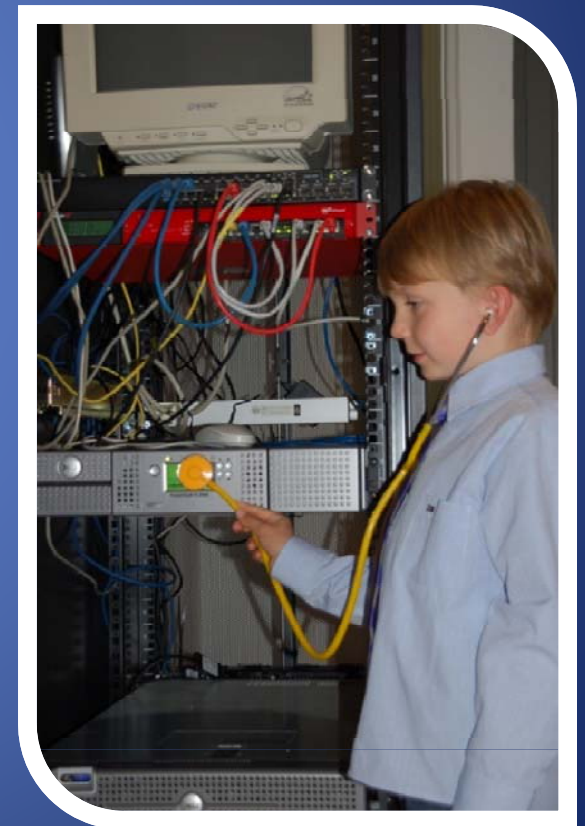
**No booklet tests on security  
features for 9303v1 available yet**



# Approving IT integration testing during SAT

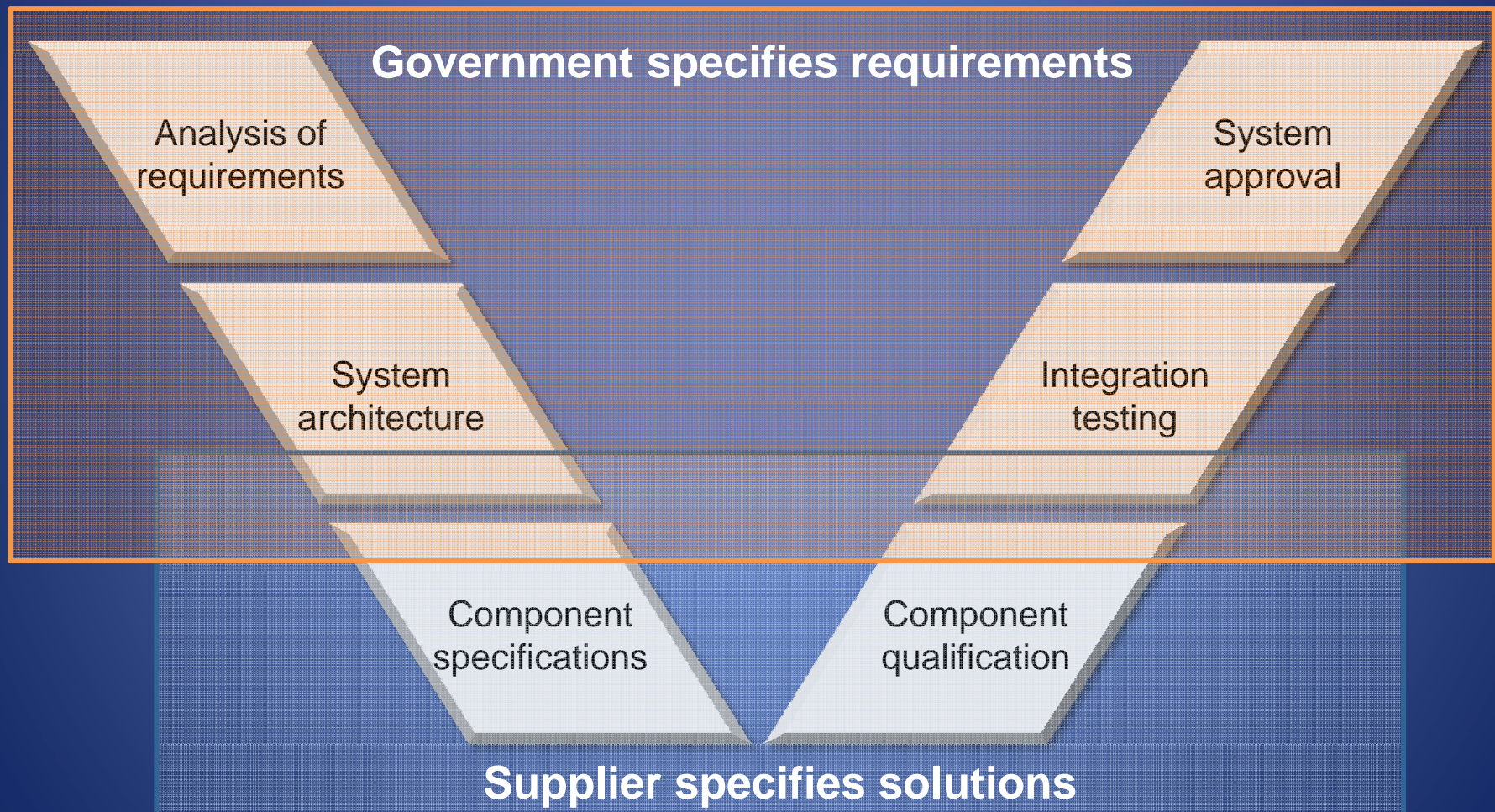
## Site Acceptance Test (SAT) tests reality:

- Review test specifications
- Develop and run own tests
- Audit supplier tests
- Check third party lab tests
- Review test reports





# Approving V-model: Testing against requirements



# Operating

## Keep quality levels high after roll out

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**Quality assurance is a continuous process of**

- Initial qualification
- Incoming inspection
- Process control
- Outgoing inspection

**Availability of service should be measured by**

- Service Level Agreements (SLA)

# Conclusion

## Planning efforts will pay off

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### Do it right from the start

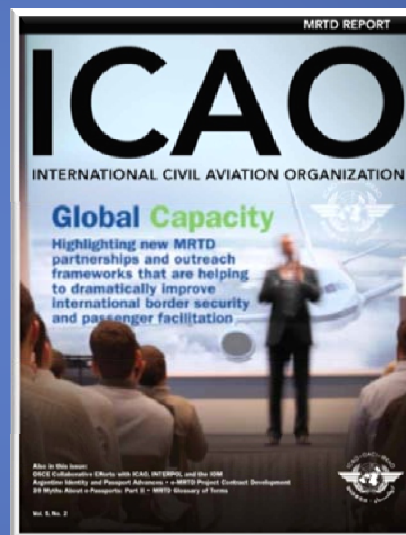
- Involve stakeholders
- Specify requirements
- Develop contract jointly
- Test the reality in SAT
- Use ICAO test standards
- Continue with Quality Assurance





# Thank you for listening

## Read the full feature in these 4 MRTD Reports



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17