PTL08.009 D3A

Aan:	Connekt
Van:	Kelly van Raaij, Gordian Logistics Experts Uitgevoerd in opdracht van Ministerie I&M/ Connekt via TKI Dinalog
Datum:	1 april 2016
Betreft:	Buitenlandpromotie Project nummer: PTL08.009, Deliverable 3A Service Logistiek Zuid Afrika 2 *Verslag 'Through Life Systems Management' workshop Marine,* *16 maart 2016, Muizenberg, Zuid Afrika*

Achtergrond

In 2016 heeft Gordian Logistic Experts in opdracht van de Topsector Logistiek twee Business meets Science seminars georganiseerd in Zuid-Afrika. Deze seminars zijn positief ontvangen in Zuid-Afrika en gaven aanleiding om verder de Zuid-Afrikaanse markt te verkennen binnen het project Buitenlandpromotie-Export. Eén van de markten die hiervoor verkend zal worden is de Zuid-Afrikaanse defensie sector. Middels twee workshops zal een verkenning worden gedaan om te kijken hoe de Zuid-Afrikaanse defensie werkt en waar hun struikelblokken liggen op het gebied van supply chain en service logistiek. Eén workshop richt zich op defensie brede onderwerpen (Pretoria), de andere workshop richt zicht op de specifieke marine tak (Kaapstad). In deze rapportage vindt u een verslaglegging van de specifieke marine workshop (Deliverable 3A).

Bijeenkomst

Voor de organisatie van de workshop werd de samenwerking opgezocht met het Zuid-Afrikaanse bedrijf Reutech. Reutech is een partner van Pragma en heeft veel contacten binnen de Zuid-Afrikaanse Marine. De uitnodigingen (zie bijlage) zijn door Reutech gestuurd naar hun contacten binnen de Zuid-Afrikaanse marine.

Gordian Logistic Experts organiseerde deze workshop in samenwerking met het Zuid-Afrikaanse bedrijf Reutech en het Zuid-Afrikaanse bedrijf Pragma (partner van Gordian Logistic Experts in Zuid-Afrika) in opdracht van de Topsector Logistiek. Datum: 16 maart 2016

- Tijd: 8 - 13 uur, inclusief informele discussies
- Locatie: Naval Staff College, 3 Gill Road, Muizenberg
- Onderwerp: Through Life Systems Management
- Geschatte aantal deelnemers: 20
- Werkelijk aantal deelnemers: 16 (exclusief Gordian werknemers)

Agenda

09:00-10:00 Systems and Assets Overview (Reutech Solutions)

- Introduction
- Systems engineering perspective
- Through Life Support

"Place asset management in perspective of the system engineering process"

10:00-10:30 Stand Easy

10:30 – 11:30 Management of Assets - ISO55000 (Stefan Terblanche, Pragma)

- Introduction
- Asset Management Framework
- Executive Assessment

“Explanation of the standard and the management influence”

11:30 – 12:30 Innovations in System Sustainment (Jan Willem Rustenburg, Gordian Logistic Experts)
- Introduction
- Trends and Developments
- Parts Management

“Benefits of good practice and practical cost saving strategies in parts management and skills development. Case studies.”

12:30 – 13:00 Concluding Remarks and Way (Dr Ian Uys, Forward Naval Engineering)
- Naval Policies and Directives
- Next Steps

“Ideas and initiatives for the way forward”

Deelnemers

	Naam	**Organisatie**	**Positie**
1	R. Jenkins	Reutech Solutions	Senior Engineer RAMS
2	T. de Klerk	Reutech Solutions	Manager: through life engineering
3	C. Grové	SAN	Staff officer, fleet functional training
4	B. Carter	SAN – SMS NAD	SSO log & eng
5	F. van Niekerk	SAN - NES	Manager platform engineering
6	T. Thiart	SAN - DFL	Manager SSC
7	K. Watsun	SAN	DNES
8	O.B. Mthethwa	SAN - DFL	Manager Technical Upkeep
9	M. Girsa	SAN - POPSYNE	Project officer FSGS
10	C. Molomo-Mphephu	Armscor Dockyard	Divisional manager Ops
11	S. Petersen	SAN - DFFP	Director Fleet Forceprep
12	M. Mkhouto	SAN - DFL	Director Fleet Logistics
13	T. Lamola	SAN - FMU	Officer commanding fleet maintenance unit
14	K. Huisamen	Reutech Solutions	Logistic Engineer
15	J.D. Mys	SA Navy	Chief engineer
16	S. Terblanche	Pragma	Partner Consultant

Verslag

Kobus Huisamen, verantwoordelijk voor de Logistics Engineering binnen Reutech en vertrouwenspartner van de Zuid-Afrikaanse marine, begon de dag met een overview van de workshop. Op basis van zijn ervaring binnen de marine legde hij een aantal prikkelende onderwerpen bloot dat een perfecte basis bood voor discussie. Zijn collega pakte het stokje over en gaf wat meer achtergrondinformatie over life cycle engineering en de verschillende standaarden die er bestaan. Hij vergeleek de PAS standaarden met de marine standaarden en gaf aan dat er veel overeenkomsten bestaan. Veel oplossingen in de civiele wereld komen daardoor in aanmerking voor de marine omgeving.

Stefan Terblanche, senior consultant van Pragma, maakte het geheel wat tastbaarder en praktischer door de ISO55000 standaarden voor Asset Management op te breken in 17 Key Performance Areas en deze vervolgens te toetsen aan de marine situatie. Dit assessment gaf snel de belangrijkste verbeterpunten aan voor de marine.

Tenslotte sloot Jan Willem Rustenburg, partner van Gordian Logistic Experts, de ochtend af met een praktisch en interactief ingestoken verhaal over spare parts optimisation. Een real life case van de Nederlandse marine en de ontwikkeling van een kennisconsortium in Nederland met kennisinstellingen, fabrikanten, asset owners en adviesbureaus, spraken erg aan bij het publiek.

Conclusie

De workshop bij de Zuid-Afrikaanse marine was via verschillende kanten ingestoken en dat bleek succesvol. Verschillende onderwerpen zijn besproken en het bleek dat de marine in eerste instantie behoefte heeft aan training en kennisinjecties. Dit geldt voor zowel asset management als spare parts management concepten en methodes.

Het feit dat alle onderwerpen van de workshop aanspraken, betekent dat service logistiek in de brede zin relevant is en een toekomst heeft in de Zuid-Afrikaanse defensie. De overweldigende opkomst is hier ook een bewijs van. Echter, een stukje servicelogistieke awareness en opvoeding is noodzakelijk.

De belangrijkste conclusie is dat de Zuid-Afrikaanse marine behoefte heeft aan praktische oplossingen. Lange termijn visies over kennisconsortia spraken aan, maar uiteindelijk tellen de oplossingen die morgen een verschil kunnen maken. Training, maar ook planning support, al dan niet met een control tower functie, zijn mogelijke oplossingen hiervoor.

Met deze workshop is een goed eerste contact gelegd met de belangrijkste stakeholders binnen de instandhoudingsorganisatie van de Zuid-Afrikaanse marine. Een vervolg workshop is reeds gepland en zal op een niveau lager worden ingestoken. Met name spare parts planning vraagstukken zullen worden behandeld, maar waar mogelijk voegen we direct waarde toe via training of een maturity scan.

Bijlage 1 - uitnodiging

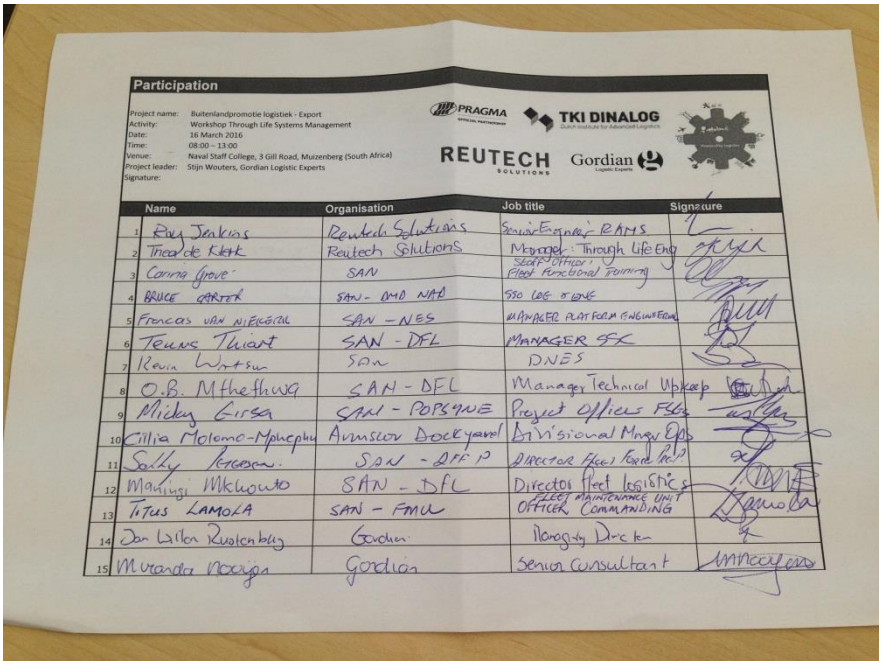
Through Life Systems Management Briefing
16 March 2016 - 08:00 – 13:00

Address: Naval Staff College
3 Gill Road
Muizenberg

Enquiries: Mr Kobus Huisamen Work: 0217873475 / Cell: 0845493742

Time	Item	
08:00 – 09:00	Welcome • Breakfast	
09:00-10:00	Systems and Assets Overview • Introduction • Systems engineering perspective • Through Life Support	Reutech Solutions Place asset management in perspective of the system engineering process.
10:00-10:30	Stand Easy	
10:30 – 11:30	Management of Assets - ISO55000 • Introduction • Asset Management Framework • Executive Assessment	PRAGMA Explanation of the standard and the management influence.
11:30 – 12:30	Innovations in System Sustainment • Introduction • Trends and Developments • Parts Management	Gordian Logistic Experts Benefits of good practice and practical cost saving strategies in parts management and skills development. Case studies
12:30 – 13:00	Concluding Remarks and Way Forward • Naval Policies and Directives • Next Steps	Naval Engineering Dr Ian Uys Ideas and initiatives for the way forward.

Bijlage 2 – deelnemers



Participation

Project name: Buitenlandpromotie logistiek - Export
Activity: Workshop Through Life Systems Management
Date: 16 March 2016
Time: 08:00 – 13:00
Venue: Naval Staff College, 3 Gill Road, Muizenberg (South Africa)
Project leader: Stijn Wouters, Gordian Logistic Experts
Signature:

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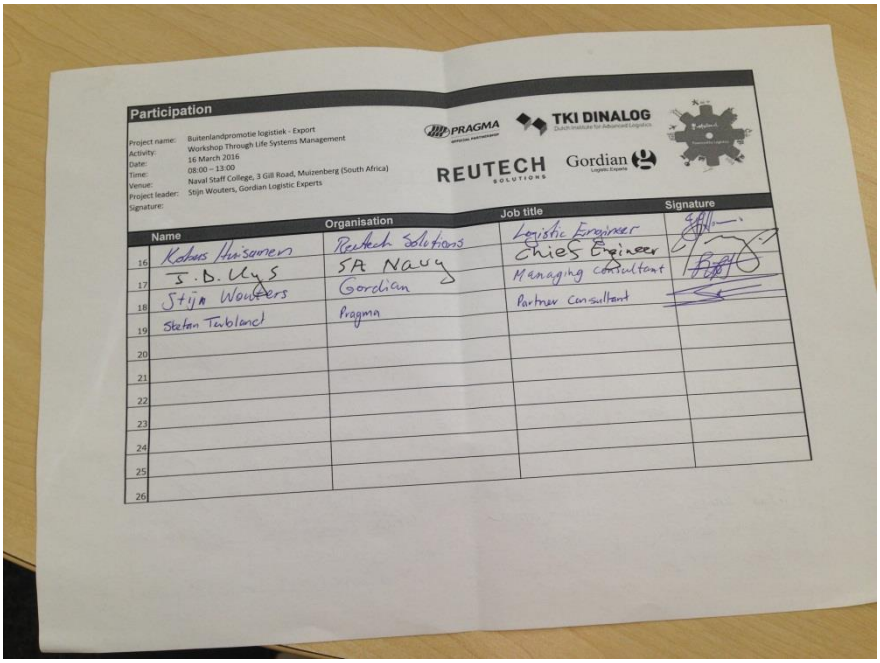
	Name	Organisation	Job title	Signature
1	Ray Jenkins	Reutech Solutions	Senior Engineer RAMS	
2	Theodele Klerk	Reutech Solutions	Manager Through Life Eng	
3	Carina Grove	SAN	Staff Officer Fleet Functional Training	
4	BRUCE CARTER	SAN - DMD NAB	SSO LOG ENGG	
5	Francois van Niekerk	SAN - NES	MANAGER PLATFORM ENGINEERING	
6	Teuns Theart	SAN - DFL	MANAGER SSC	
7	Kevin Watson	SAN	DNES	
8	O.B. Mthethwa	SAN - DFL	Manager Technical Upkeep	
9	Micky Girsa	SAN - POSYNE	Project Officer FSC	
10	Cillia Molomo-Mpiepho	Armscor Dockyard	Divisional Mngr EDS	
11	Sally Jacobsen	SAN - DFL	DIRECTOR Fleet Force Prep	
12	Mavungi Mkhwanto	SAN - DFL	Director fleet logistics	
13	TITUS LAMOLA	SAN - FMU	OFFICER COMMANDING FLEET MAINTENANCE UNIT	
14	Jan Willem Rustenburg	Gordian	Managing Director	
15	Miranda Noorgat	Gordian	Senior Consultant	



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PRAGMA · TKI DINALOG · REUTECH SOLUTIONS · Gordian

	Name	Organisation	Job title	Signature
16	Kobus Heinsonen	Reutech Solutions	Logistic Engineer	
17	J.B. Uys	SA Navy	Chief Engineer	
18	Stijn Wouters	Gordian	Managing consultant	
19	Stefan Terblanche	Pragma	Partner Consultant	
20				
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Bijlage 3 – Presentaties

Presentatie Gordian

Gordian Logistic Experts

Gordian Logistic Experts

Meets

Dr. ir. Jan Willem Rustenburg

Gordian meets SA Navy

1. Introduction
2. Introduction Dutch Navy
3. The Dutch Navy dream
4. Long term approach: breakthroughs by innovation
5. Short term approach: practical incremental improvements
6. Case study – rotables Dutch Navy

2 Gordian Logistic Experts bv

Gordian meets SA Na

1. Introduction
Our key-challenge

We believe that physical assets do not have to be down due to a shortage of spare parts... against reasonable costs!

Hence, all our efforts focus on optimising the "triangle"

3 Gordian Logistic Experts bv

Gordian meets SA N

1. Introduction
A brief overview

- Founded in 2005
- 24 professionals
- Strong scalable network
- Maintenance logistics
- Spare parts management

- Results, no reports
- Direct interventions
- Passionate
- Soft side also counts
- Fact based

KLM engineering & maintenance · xerox · VARIAN medical systems · THALES · ECT Europe Container Terminals · SONY · Tusso · ENECO energie · NedTrain · IHC MERWEDE

4 Gordian Logistic Experts bv

Gordian meets SA Na

1. Introduction
Current involvement at the Dutch Navy

Training	***ICT/Decision support***	***Planning Services***
• Case-based training item managers • Coaching senior item managers • Case-based training workforce planning	• SPM tool including dashboard • Configuration SAP MM	• Tactical planning for all assortments • Full planning commodity assortments • Supply chain planning
Hands & Brains	Integrated project teams	Direct interventions

Gordian Logistic Experts bv

Gordian meets SA Na

2. Introduction Dutch Navy
Recognise this?

8 Gordian Logistic Experts bv

Gordian meets SA Navy

3. The Dutch Navy dream ...

Gordian meets SA Navy

3. The Dutch Navy dream ...
A realistic plan to get there

*4. The Dutch Navy dream – **Mid/long term** way to get there*
- Sustainable breakthroughs along the route of innovation

*5. The Dutch Navy dream – **Short/medium term** way to get there*
- Incremental improvements, recovering from SAP implementation and multiple reorganisations

Gordian meets SA Navy

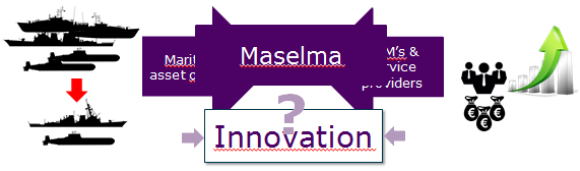
4. Long term approach
Breakthroughs by innovation

4.1 Strategic motivation for change

- Decreasing fleet, lots of one-offs
- Difficult to maintain an economical viable maintenance organisation

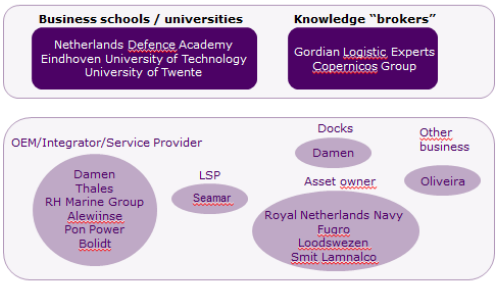
- Declining margin & revenue in product sales
- Opportunities in after sales service

4.2 Bridging the gaps along the route of innovation

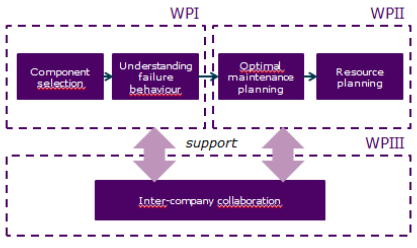


- Debating without direct commercial interest
- Focus on long-term results
- Lots of neutral people involved

4.3 A comprehensive set of companies participate

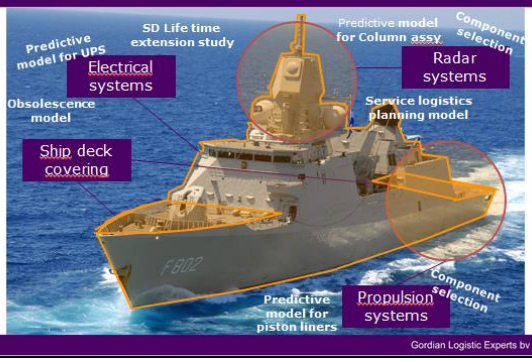


4.4 Taking an integrated view

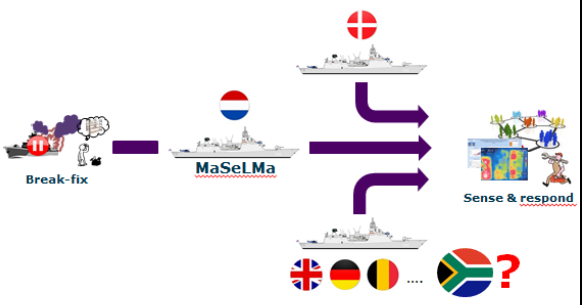


- WP I JIT Maintenance
- WP II Advanced service logistics planning
- WP III Sustainable supply chain collaboration

4.5 Bringing theory directly into practice -1



4.6 The Dutch government stimulates going international



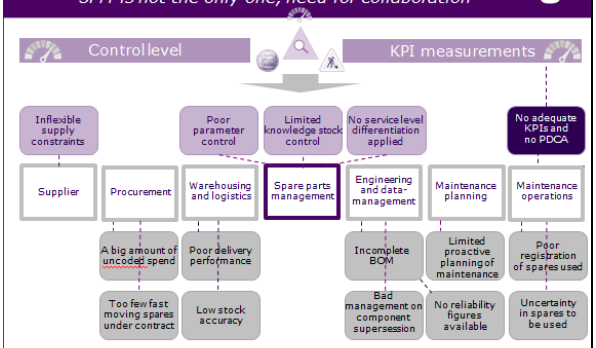
5. Short term approach
Practical incremental improvements

5.1. Typical issues in the (navy) maintenance supply chain
SPM is not the only one, need for collaboration

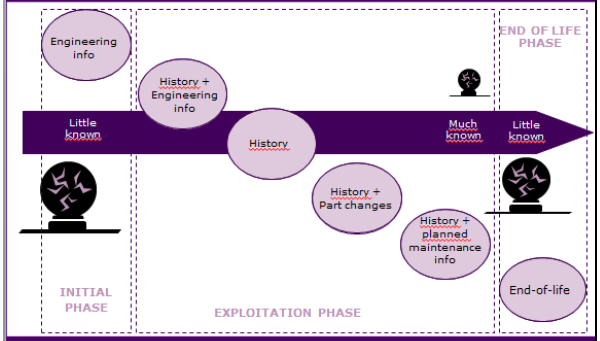
5.2. Demand stability is a rare thing
Collaboration is key to any success

5.3. Methodology and approach

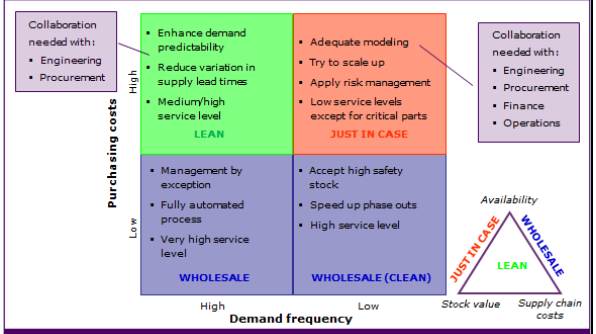
5.1 Typical issues in the maintenance SC
SPM is not the only one, need for collaboration



5.2 Demand stability is a rare thing
Collaboration is key to any success

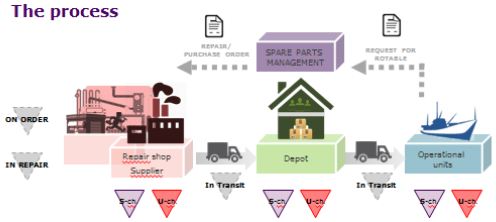


5.3 Methodology and approach



6. Case study – rotables Dutch Navy

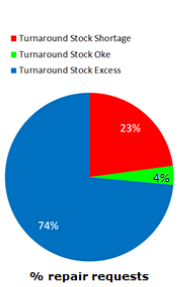
The process



Some numbers:

Number of rotables	27 000	*(18% moving)*
Number of requests	7 100	

6.1 Stock availability is an issue, without a shortage of turn around stock



Stock availability rotables
Very low
Low since SAP implementation

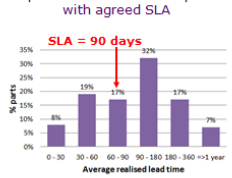
Paradox:
Low stock availability mainly on parts with excess turn around stock

Causes of misperformance seem to occur on the *interface* between

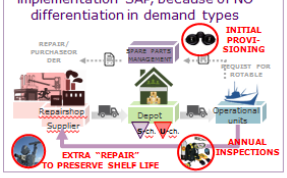
Spare Parts Management *and* ***the repair shop***

6.2 Identified causes for misperformance

Repair lead times not compliant with agreed SLA

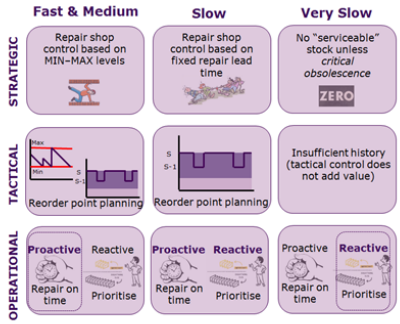


Demand is severely polluted since implementation SAP, because of NO differentiation in demand types



Other causes
- Lack of proper inventory parameters
- Stock allocation mechanism inadequate: too much stock is allocated on the ships

6.3 A framework for solutions – going from fast to slow

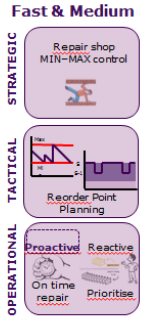


6.4 Approach for fast/medium movers

Optimise interface with repair shop by giving more flexibility using a MIN-MAX policy

Apply SPM studio for tactical parameters; in combination with a data cleaning procedure. Also implement a KPI dashboard

Introduce a tracking system to become proactive (avoiding misperformance); set up a prioritising mechanism in case of shortages



6.5 The improvement roadmap

Some summarizing remarks

- Become **agile**, as the world changes faster and faster
- The Navy more and more applies real **partnerships** ("collaboration3.0")
  - Not only with "knowledge-intensive agencies" but also with OEM/service providers
- Recruit more **higher educated professionals** and empower them with right tools, training/coaching, methodologies
- **Eliminate the silos** between Supply chain, Procurement, Maintenance and Engineering
- **Involve Maintenance and Logistics** as much as possible in designing and contracting new ships

Thank you very much!

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Please contact us if you have any questions and/or want to know more!

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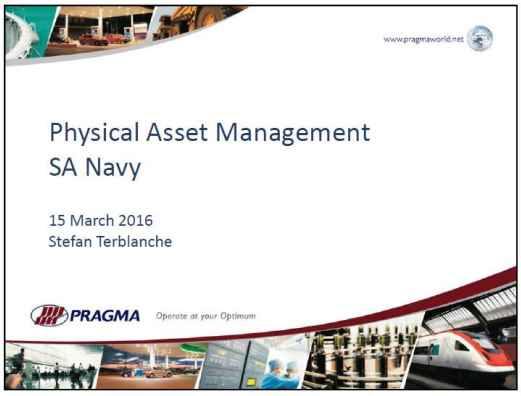
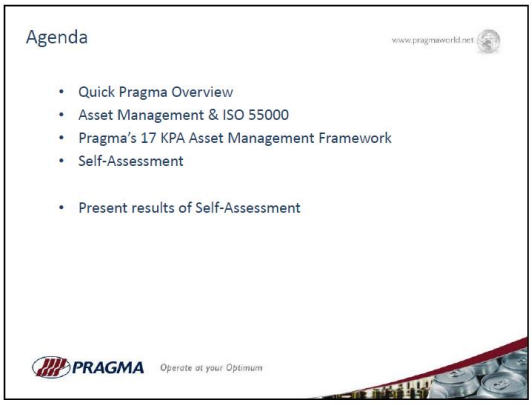
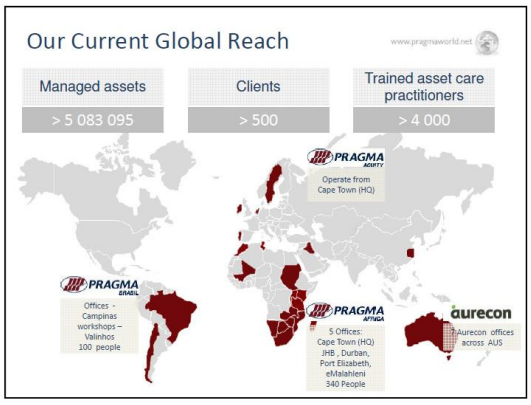
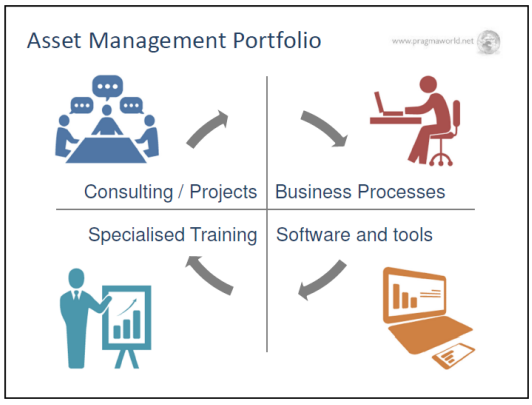
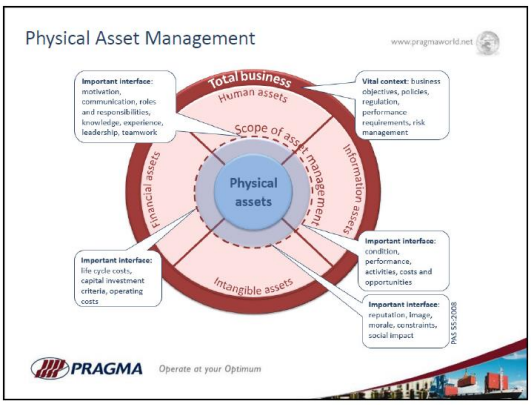
Presentatie Pragma

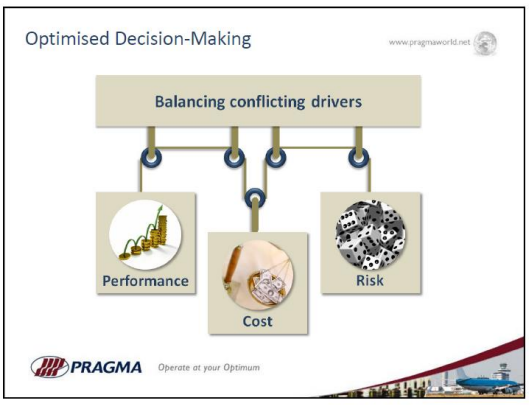












The History of ISO 55000

- 2004: PAS 55 published by BSI
- 2008: PAS 55 V2 released
- 2009: BSI proposed PAS 55 as the basis for an AM standard
- Jul 2010: Preliminary meeting of ISO AM committee in London
- Sept 2010: ISO approval of Technical Committee TC251 for AM ISO standard
- Jan 2011: 1st working draft of ISO 55000/1/2 released
- Jan 2014: Final release and global launch
- Working committees busy updating ISO 55002 as a "body of AM knowledge"

www.iso.org

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ISO 55000/1/2

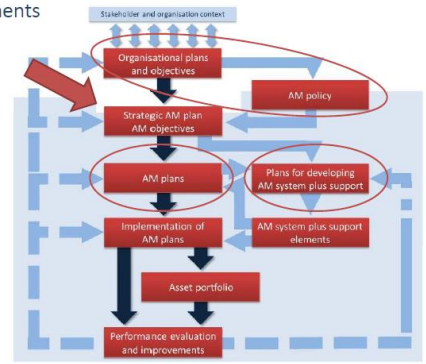
ISO 55000:2014
AM – Overview, principles and terminology

ISO 55001:2014
AM– Management systems - Requirements

ISO 55002:2014
AM – Management systems - Guidelines for the application of ISO 55001

PRAGMA Operate at your Optimum

AM System: Relationship between Key Elements



The Pragma Way

Seventeen key performance areas aligned with ISO 55000, the 39 Subjects and PAS 55

Bijlage 4 – foto’s