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**To:** Connekt  
**From:** Gordian Logistics Experts  
Assignment performed on request of Ministry I&M/ Connekt via TKI Dinalog

**Subject:** Business meets Science  
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## Status Update Business Meets Science

1. Report BMS South Africa
2. Report factfinding mission Canada

### 1 BMS South Africa

On Wednesday November 9<sup>th</sup>, Pragma and Gordian organized a very successful Business Meets Science in Midrand on spare parts and asset criticality.

#### *Objective*

The primary objective of this seminar was to identify risks contributing to unplanned downtime of assets due to lack of spares. Moreover we brainstormed on mitigating these risks. We took a holistic view on the risks, i.e. we did not only take the asset or maintenance angle, but also considered a more wider supply chain perspective.

#### *Content/Speakers*

First Johan Alberts from Pragma set the scene from an asset management perspective. He explained a structured process starting from an asset strategy all the way to spares criticality. Johan stressed the importance of making this process a routine practice (and thus not an once-off project).

Then Francoise DuPreez from AngloAmerican presented their experiences. She adequately combined a maintenance angle and a supply chain angle to cope with this challenge. Interestingly, AngloAmerican is very successful in transferring risks to suppliers using advanced contractual agreements. Finally, she stressed the importance of working together with universities, e.g. when it comes to calculating the required spares from an OEM in the acquisition phase of an asset.

The last speaker was Jan Willem Rustenburg from Gordian. He primarily took a supply chain angle to the topic, and dealt with some common risks and remedies to cope with them. Amongst others he presented the brilliant research of Rommert Dekker on obsolescence, funded by Dinalog. More in a broader perspective he presented the innovative climate in the Netherlands and the related international ambitions.

#### *Workshop*

In 4 teams the delegates brainstormed on the supply chain risks and the ways to mitigate them. As always in South Africa the discussions were very lively. We also included a certain competition element. The winning group received the notorious Dutch stroopwafels.

### *Presence*

The seminar was very well attended, see the signed attendance register enclosed. In total 40 external company delegates registered, of which 32 really showed up. The 80% shows was the highest we achieved so far. On top of the company delegates staff from Gordian and Pragma was present.

### *Relevance for Dutch Industry*

Again we observed that spares management is pre-dominantly considered a "store man problem". More and more the industry becomes aware that spares management is all about connecting disciplines such as maintenance, logistics, procurement and finance. In essence, that is exactly what we advocate in the Service Logistics track.

By creating this awareness, industries become more receptive to solutions coming from the low lands. You may think of the typical Gordian solutions but also solutions on return management (e.g. 12Return), master data management (e.g. Verebus) and predictive maintenance/logistics (e.g. Semioticlabs).

On the other hand...the Anglo pitch proved the extreme maturity of some companies. To our opinion there are very few Dutch companies, that can meet with their professionalism on contract management. So there is definitely room to exchange knowledge other than just exporting it from the Netherlands.

In conclusion, yes there are great opportunities in South Africa for Dutch companies. However the process of creating awareness is pre-conditional and takes a serious effort. If they wish, TKI Logistics can have great value in making the entrepreneurial ground more fertile in South Africa.

### *Documents*

All presentations and a visual impression of the workshop can be found on <http://www.gordian.nl/nieuwsitem/business-meets-critical-spare-parts-and-assets-seminar-in-south-africa-2/> and the delegate list with attendees is attached.

## **2 Fact finding mission Canada**

### *Introduction*

In 2016 Gordian received approval from Connekt to conduct Business Meets Science (BMS) sessions to promote latest innovative solutions and concepts applied and developed in the Netherlands. 2 BMS seminars have been held in RSA and we aim for a first BMS in Canada in Q4 2016.

Canada is an interesting market for the Dutch Logistics Innovation Programs as it has many capital intensive Industries and large number of companies, which operate in businesses like, mining, off shore, aerospace, maritime, rail, etc. Certainly in Industries like mining and off shore, market prices and environmental regulations do put additional pressures on profitability.

The Netherlands is well known for its knowledge, development and adaption of innovation in the space of Logistics in its broadest sense. Innovation programs like ProseloNext and Maselma are geared up for the business challenges, which are currently important in the Capital Intensive Industries in Canada. Discussions with Universities in Canada and Societies which represent maintenance Industries are confirming that.

### *Summary*

The fact finding mission was conducted from 6<sup>th</sup> sept till 9<sup>th</sup> September. The purpose was to speak with companies and organisations which represents Industries that manufacture and/or maintain capital intensive goods like Utilities, Energy, Rail, Aerospace, Steel, Mining, Pulp & Paper and Maritime. In addition Ryerson University and other governmental institutions have been approached to discuss their role in a BMS concept.

It appeared to be a challenge to conduct meetings with companies directly, so we approached various organisations who represent these Industries and have contacts with companies within these Industries.

According to the organisation representing certain businesses, there is interest in innovative logistics solutions and they would welcome Dutch innovations in their businesses.

Next steps will be to work in more detail with the representative organisations, governmental institutions and universities and determine more in-depth how a BMS could be organized and decide about Go/No Go.

### **Ryerson University Toronto**



Ryerson is one of Canada's leading Universities with a strong focus on Innovation and is very practical oriented, opposed to Universities like Waterloo, which have a larger focus on Science.

Gordian had an appointment with Dr. Sharareh Taghipour. She performs a role as Professor at the Department of Mechanical and Industrial Engineering. Sharareh made various publications regarding predictive maintenance and K+N systems. Her knowledge and experiences matches closely with some work packages in Proselo Next.

Ryerson confirms that many Industries in Canada will benefit from innovation concepts and they are very willing to participate in a BMS to present to companies and exchange programs with Dutch Universities. It appears that the university has a challenge to attract companies for student assignments directly and their recommendation and experience is that building networks with Societies that represents the Industries is more effective.

The University is willing to offer their facilities for a BMS, however it depends on availability and at this moment it would be difficult to find the right facility, given the number of lecturers. Ryerson also recommended to organise a BMS outside the centre of Toronto as it is more practical for companies.

Ryerson supports a BMS and will participate assuming that the BMS attracts sufficient companies. Next to that the BMS approach is based on a workshop, that appears to be more attractive for companies.

Agreed is that Gordian will submit a draft proposal for a workshop with content and time schedule for Ryerson to evaluate.

### **SMRP (Society of Maintenance and Reliability Professionals), Ontario Chapter**



Gordian also spoke intensively with SMRP's chairman (Pasha Mohammed) for the Ontario chapter.

SMRP Ontario has 500 companies as a member of which a large number are operating in capital intensive Industries like Steel, Mining, Heavy Manufacturing.

Their primary objective is expand knowledge and skills amongst company members about maintenance excellence and maintenance related functions supply chain.

Gordian explained in-depth the BMS model and core objectives. SMRP is very interested to invite their member companies for such a session. They also recommended to organise the session outside Toronto Centre and apply a workshop concept with concrete subjects on which companies can brainstorm in break out sessions during.

Agreed is that Gordian will craft a concept BMS workshop and that this will be shared with the SMRP members via Pasha Mohammed to seek and define level of interest which is expected to be more than sufficient to conduct an effective workshop. In the event of a large interest (>50 companies) by SMRP members it is desired to conduct more workshops.

## **Nulogy**



Nulogy designs and delivers packaging solutions for a wide range of Industries to improve their efficiency, compliance and traceability with regards to packaging and overall logistic chains.

They are interested in concepts like control towers and alike innovations as Nulogy's client base will likely adapt these models. Nulogy believes that there is a lot to be gained in terms of logistics efficiencies and noticed a growing interest in Canada.

Nulogy has a wide client base of which companies like Ameripak, Packet Corporation, International Paper, Accel Inc, are considered as interesting organisations to talk with the Pulp & Paper Industries.

Agreed is that Nulogy will help us to establish direct contact with these companies.



Kingdom of the Netherlands

## **Consulate of the Netherlands**

This meeting took place at the Dutch Consulate with Emmy Scholten and Sabira Tejani.

In their experience it would still be possible to conduct a BMS by the end of November as companies in Canada appear to have more flexibility in their agenda's.

The Dutch Consulate itself has not many contacts with capital intensive Industries and confirms that connecting with companies is most effective via their branch representative organisations.

Following actions were agreed to pursue BMS:

Elly will introduce Isah to Gordian. Isah is a software solution company that has many clients in the manufacturing Industry.

Contacts will be established with Waterloo University. There appears to be a solid cooperation with TU Eindhoven and Waterloo. Waterloo is very active in organizing innovation congresses on their campus and would definitely be a partner.

The Consulate will help to establish right contacts with Ontario Centres of Excellence (OCE). OCE works directly with universities and industries to bring organisations together and help them to transform ideas and innovative research and concepts into tangible business solutions, generating profit for the businesses.

Gordian had telephone conversations with them, where they acknowledges the BMS concept would well fit, however the right contact person was not available.

Gordian also approached Deloitte and KPMG spontaneously as HQ's for Canada are based close to the Consulate and Ryerson.

These global consultancy practices appear to work with fixed partners in terms of innovation and would carefully consider a change in position. It was confirmed that Canada is a very open minded business culture, where innovation gains interest, though the subject should be tangible and tailored to adjacent Industries.

*Actions and Initiatives post- fact finding mission*

In the recent months various actions have been pursued to support the decision process if a BMS event in Canada would be feasible.

A draft proposal for a BMS was submitted to the chairman of SMRP and he would consult his members to see interest. There has been very limited traction from SMRP, which would indicate that this path would not be an effective route for a BMS session.

Furthermore the contacts with Ryerson have not resulted in a concrete commitment so far which could be seen as a strong signal that BMS is not on their radar screen to actively support and co-organize.

The Canadian consulate made a few attempts to connect with OCE (Ontario Centre of Excellence) They have confirmed that there is no interest.

With regards to Waterloo University, the Canadian Consulate has connected Gordian with BrainPort. This organisation would reach out to Waterloo University to seek interest for a BMS concept. Documents were exchanged with BrainPort. However this has not resulted in a concrete contact so far.

*Conclusions*

It becomes clear that a local business partner remains instrumental to create sufficient interest for BMS concepts and at this stage Gordian has not been able to replace its existing commercial associates. It is also fair to say that based on the contacts explored it would not be feasible, neither realistic to assume that a BMS session can be arranged in the next 6 months.

We surely believe that given the market size and initial reactions from SMRP and Universities there is a potential for a BMS, however this would require dedicated presence of a partner in Canada or would require a robust expansion plan with frequent visits to Canada.

In the latter case a BMS could be considered in Q3-Q4 2017.

Kind regards

Jan Willem Rustenburg and Roy Peters  
Gordian

Participation

Project name: Buitenlandpromotie logistiek - Export  
 Activity: Seminar - Business meets critical assets and spare parts  
 Date: 9 November 2016  
 Time: 08:00 - 13:00  
 Venue: Accolades Boutique Venue, Midrand  
 Project leader: Tycho Lejeune



**pragma**  
 official partner

Signature

Nr	Name	Organisation	Job title	Signature
46	Taute, Le Clus	Anglo America	Section Engineer	Not attended.
47	Wilson, Billy	Pragma	Business Area Manager, Training	
48	Wouters, Stijn	Gordian	Senior Consultant	
49	Kera Andriès	Rck Foods	Stuencer	
50	MAKUSI MABASO	RCK FOODS	ENGINEERING MAN	
51	Fredrick Colmire	International Food Metals	Maint. Eng.	
52	Van Heerden, Andriès	Pragma	MD: SEAM	
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**pragma**  
 official partner

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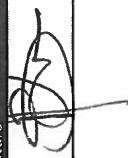









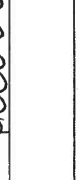



Nr	Name	Organisation	Job title	Signature
31	Tietz, Willem	RCL Foods	Maintenance Planner	<i>[Signature]</i>
32	Vallo, Nigel	Rand Water		<i>[Signature]</i>
33	van Sittert, Hendrik	Sasol	Reliability Engineer	<i>[Signature]</i>
34	Wolfradt, Pieter	Redpath Mining	General Manager Engineering	Not attended
35	Samodien, Sadick	Pragma	Project Engineer	
36	Alberts, Johan	Pragma	Regional Sales Executive	<i>[Signature]</i>
37	Booyens, Ben	Pragma	Project Engineer	<i>[Signature]</i>
38	Coetzee, Johannes	Pragma	North Regional Manager	<i>[Signature]</i>
39	du Preez, Francoise	Anglo American	Reliability Engineer	<i>[Signature]</i>
40	Fourie, Wilma	Pragma	Secretary Northern Region	<i>[Signature]</i>
41	Lejeune, Tycho	Gordian	Consultant	<i>[Signature]</i>
42	Manyoni, Cyril	Pragma	Solutions Engineer	<i>[Signature]</i>
43	Oosthuizen, Bennie	Pragma	Business Area Manager	
44	Phala, Julia	Pragma	Solutions Engineer	<i>[Signature]</i>
45	Rustenburg, Jan Willem	Gordian	CEO	<i>[Signature]</i>

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Nr	Name	Organisation	Job title	Signature
16	Khoza, Bob	RCL Foods	Stores	
17	Kwati, Tshiamo	Lepelle Northern Water	Infrastructure Maintenance Engineer	
18	Lythgoe, Stephen	Redpath Mining	Financial Manager	
19	Mariiz, Jano	Redpath Mining	Financial Manager	
20	Moodley, Anthony	Vesuvius	Mechanical Engineering Manager	
21	Naude, Wendy	South African Airways Technical	Inventory Control Specialist	
22	NT Bingidza, Tirwirei	BINIMAK Corporation		
23	O'Connell, Pieter	Nampak	Senior Business Analyst	
24	Pholowa, Simon	Nampak		
25	Prinsloo, Daniell	Bouvest2346		
26	Robbertse, Leon	South African Airways Technical	Senior Manager Procurement	
27	Roberts, Graham	Redpath Mining	General Manager Mining	
28	Slabbert, Herman	Optilog	Asset Management Practitioner	
29	Steyn, Simon	Nampak		
30	Strydom, Frikkie	RCL Foods	Engineering Store Manager	

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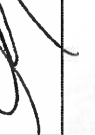




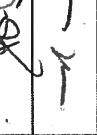




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Nr	Name	Organisation	Job title	Signature
1	Archibald, Andrew	Hulamin	Asset Manager	
2	Bignaut, Riaan	Lonmin		
3	Botha, Hannes	Samancor		
4	Breedt, Pierre	Thyssenkrupp Industrial Solutions	Proposals Engineer Operate and Maintenance	
5	Chimeloane, Isaac	AEL Mining Services	Asset CARE Specialist	
6	Choonara, Firoz	Rand Water	Prin Tech	
7	Daniels, Lionell	Vesuvius	Electrical Engineering Manager	
8	de Beer, Marius	Lonmin	Head of Engineering	
9	de Lange, Helen	Rand Water	Automation Technologist	
10	Deonarain, Sudesh	Redpath Minign	Contract Engineer	Not attended.
11	Fourie, Hannes	AEL Mining Services	Engineering Manager	
12	Gede, Zukisa	Heineken	Stores Engineering Manager	
13	Harrmon, Claran	Thyssenkrupp Industrial Solutions	Operate and Maintenance Manager	
14	Ismail, Jeremiah	Sasol	Senior Management Inventory Management	
15	Joubert, Izak	Fraser Alexander	Maintenance Manager	

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