April 2010 GWDMS: xxxx

SIMS: 3400

# PG Report: Fellowship M De Beer - 2009-10

Project Title: Fellowship Report:

Project Title and No: FELLOWSHIP: MORRIS DE BEER

SIMS number: 3400

Competence Area: Infrastructure Engineering (IE)

Report type: Progress Report

Author:

M De Beer

PREPARED BY: CSIR PO Box 395 PRETORIA 0001 Tel: +27 12 841-2953

mbeer@csir.co.za

DOCUMENT RETRIEVAL PAGE						
Report Number:	ort Number: CSIR/BE/IE/IR/2010/XXX					
Report Title:	Fellowship - M De Beer - 2009-10					
Authors:	M De Beer					
Date:	10/04/01					
Project Number:	nber: 59E2114					
Project Title:	Unit Fellowship: Morris De Beer					
Competence Area:	Competence Area: Infrastructure Engineering (IE)					

#### Abstract:

In this internal PG report the activities of the author during 2009/10 as Unit Fellow of CSIR BE are summarised. It covers actions undertaken regarding the following stakeholders/Institutions, etc:

- CSIR SRP project participation and meetings;
- Author's Association with RILEM;
- International Journal of Road Materials and Pavement Design (RMPD);
- Roads Pavement Forum (RPF);
- HVS International Alliance (HVSIA);
- Society for Asphalt Technologists (SAT);
- Extraordinary Professorship at UP;
- Invitation to Tire Technology expo 2010 in Cologne, Germany;

Keywords:	Fellow, PG, 2009/10, R&D, activities, RMPD

Note: This document is confidential and may only be released with approval of the Director of the Built Environment Unit.

# **Table of Contents**

1 INTRODUCTION	4
2 CSIR SRP PROJECT PARTICIPATION AND MEETINGS	
2.1 Panel Meetings:	4
2.2 Some important summary points/observations	
3 RILEM ACTIVITIES (EUROPÉ)	
4 INTERNATIONAL JOURNAL OF ROAD MATERIALS AND PAVEMENT	
(RMPD)	7
S ROADS PAVEMENT FORUM (RPF)	
6 HVS INTERNATIONAL ALLIANCE (HVSIA)	
7 SOCIETY FOR ASPHALT TECHNOLOGISTS (SAT)	8
8 CSIR RESEARCH CAREER PATH ISSUES	
9 EXTRAORDINARY PROFESSORSHIP AT UP - 2007 to 2009	9

## **APPENDIX A**

Minutes of the 12<sup>th</sup> Annual RMPD Editorial Board Meeting held in Lisbon, Portugal, March 24, 25, 26, 2010.

#### 1 INTRODUCTION

During the 2009/10 financial year the author participated in a number of activities relevant to his work environment and position as Principal Researcher and Unit Fellow at CSIR Built Environment. These activities were regarded as important not only for career development, but also to liaise with wider stakeholders and groups and their activities to stay in touch with road pavement technologies and associated projects.

The activities covered under this PG project, included participation/interaction with the following stakeholders/organisations:

- CSIR SRP project participation and meetings;
- · Author's Association with RILEM;
- International Journal of Road Materials and Pavement Design (RMPD);
- Roads Pavement Forum (RPF);
- HVS International Alliance (HVSIA);
- Society for Asphalt Technologists (SAT);
- Extraordinary Professorship at UP;
- Invitation to Tire Technology expo 2010 in Cologne, Germany;

#### 2 CSIR SRP PROJECT PARTICIPATION AND MEETINGS

#### 2.1 Panel Meetings:

During 2009/10 the author served on the SRP Panel of CSIR for the last year of a 3 year term (April 2007- March 2010). Various meetings were held discussing the workings of the SRP Panel, scope and aims. In addition various meetings were held discussing Type A and Type B Calls, including Expressions of Interest (EoIs), YREF proposals, proposals themselves and evaluations of selected proposals with associated ratings and assisting in final selection of various SRP proposals for proposed funding to EXCO.

The author also participated as a member of the "Futures" sub-committee of the SRP.

As March 2010 was the final year of the Author on the CSIR SRP, this function will therefore be discontinued from April 2010. An official letter signed by the President of the CSIR was already received from the office of Dr Thulani Dlamini (CSIR R&D Office) in this regard, dated March 11, 2010.

#### 2.2 Some important summary points/observations

The bullets below are a brief summary of important points related to SRP activities, etc.:

- Extremely valuable exposure of SRP panel members to the activities of the wider CSIR:
- Creation of a sort of "custodianship" (or ownership) to CSIR strategic directions down to project level;
- Appreciation of the extremely talented researchers at CSIR, however, this pool of talent to be managed optimally – not always easy;
- Increase in the quality of SRP proposals (EoIs, YREF, SRP A, SRP B);
- This increase in quality directly related to the effort in Unit level spend on developing and peer review/advice before submission;
- High level of competitive culture within CSIR for limited funding (This maybe a driving force related to the increase in quality of proposals);
- The importance of external reviewers not to be under estimated, but these reviewers to be selected with care;
- Presentation (10 min) of proposals to SRP extremely important, and this should not be underestimated by Principal Investigators (Pis) first impressions counts....
- The importance of the R&D Office and the effective management of the SRP activities not to be underestimated;
- Teamwork extremely important;
- Value of focus on evaluation and scoring processes and procedures, in addition to proposal content;
- Importance and value of proper preparation for these SRP meetings;

#### 3 RILEM ACTIVITIES (EUROPE)

RILEM is an International Union of Laboratories and Experts in Construction Materials, Systems and Structures. The mission of RILEM is to advance scientific knowledge related to construction materials, systems and structures and to encourage transfer and application of this knowledge world-wide. See www.rilem.net. This mission of RILEM is achieved through collaboration of leading experts in construction practice and science including academics, researchers, testing laboratories and authorities.

The three main goals of RILEM are:

- to promote sustainable and safe construction, and improved performance and cost benefit for society,
- to stimulate new directions of research and its applications, promoting excellence in construction,
- to favour and promote cooperation at international scale by general access to advanced knowledge.

#### The Technical Potential of RILEM:

- More than 1200 experts are involved in our work.
- 700 members are active in RILEM Technical Committees (TCs)
- Five clusters coordinate the activities of RILEM TCs.

The author is currently the only link for CSIR BE with RILEM, and is a fully paid Senior Member. The author is also a member of a RILEM technical committee (TC) in Europe, which are working on Cracking of Asphalt Pavements (TC-CAP). As reported last year, the author was invited to be a member of the conference scientific board which is tasked to organise an International Conference on Cracking of Pavements. This Conference, the "6<sup>th</sup> RILEM International Conference on Cracking In Pavements" was successfully held in Chicago, June 16-18, 2008. See http://www.ict.uiuc.edu/RILEM.

Note: The RILEM membership allows access to various RILEM publications, such as Materials and Structures in paper format, as well as on the web through Springer.

# 4 INTERNATIONAL JOURNAL OF ROAD MATERIALS AND PAVEMENT DESIGN (RMPD)

Since its inception in 1999, the author is an Associated Editor of the International Journal of Road Materials and Pavement Design (RMPD). The Board of Editors meet annually, and (as was stated in previous 08/09 Fellowship report) the 2010 Editorial Board Meeting was recently held in Lisbon, Portugal during 24<sup>th</sup> to 26<sup>th</sup> March 2010. It was then reported that the journal is healthy with more than 94 proposed papers in the pipeline, but reviews tend to be slow. In 2009, the acceptance rate of scientific papers was 40 percent, which indicate a good selection ratio.

The publishers will be requested to implement an on line review process as soon as possible to ensure timely reviews, which should be operational during end of 2010.

The RMPD has been included in the TRB's Transportation Research Information Service (TRIS) (tris.trb.org).

The minutes of the 12<sup>th</sup> meeting (March 24<sup>th</sup>, 2010) is given in Appendix A of this PG report.

#### 5 ROADS PAVEMENT FORUM (RPF)

During 2009 one Road Pavement Forum (RPF) meeting were attended by the author. The meeting was:

 18<sup>th</sup> RPF Meeting: 10 to 11 November 2009 CSIR CONFERENCE CENTRE, PRETORIA, GAUTENG. A presentation on the tyre contact stress project for SANRAL was prepared and delivered by the author: see: <u>Integration of Vehicle-Pavement Contact Stress Data in SAPDM</u>

### 6 HVS INTERNATIONAL ALLIANCE (HVSIA)

As was reported in 2007, the author is a member of the HVSIA and the last annual meeting attended by the author was in the Cape during 19-22 September 2007.

Since then, several HVSIA meetings were held but the author was unable to attend, owing to local and other work pressures.

The last meeting was held during 7th Heavy Vehicle Simulator International Alliance (HVSIA) Meeting, 3 to 5 November 2009, USACOE ERDC, Vicksburg, Mississippi.

#### 7 SOCIETY FOR ASPHALT TECHNOLOGISTS (SAT)

The author is a member of the Steering Committee (Central Region) of the Society for Asphalt Technologists (SAT). Various management meetings were held during 2008, from which three seminars were organised and presented. These include:

- July 24, 2007: Sustainable Practises Use of RAP in hot-mix Asphalt;
- January 29, 2008: Asphalt Re-enforcement;
- March 5, 2008: Thin Layer Asphalt Workshop;
- April 9, 2008: Bitumen Rubber Asphalt Workshop by SAT Central Region;.
- April 23, 2008: The Asphalt Paving Process- New Tools & Technologies for process monitoring and control Univ of Twente, The Netherlands.
- June 26, 2008: "Lessons Learnt" Workshop Attendance > 120 persons;
- July 9, 2008: Free Warm Mix Asphalt and Asphalt modifiers Seminar;
- August 20,2008: Binder and Asphalt Developments in Europe:
- October 14, 2008: Gauteng Freeway Improvement Project (GFIP);
- November 1, 2008: SAT AGM Meeting;
- November 27, 2008: Design and Use of Slurry/Microsurfacing Workshop;
- March 4, 2008: SAT/RMPD/CSIR One day Seminar on: "From the Globe: Some latest international research on hot mix asphalt (HMA) road and airport pavements". A Seminar CD was also produced. (Note: 1 CPD Point awarded – see below);
- Various successful seminars held during the 2009/10 period.

All seminars in 2009/10 were well attended, and it is the opinion that SAT continuous to give good value to the industry through its actions. SAT is currently looking into the accreditation for CPD points, which was (as previously stated) successfully obtained for period March 2009-2010 for the SAT/RMDP/CSIR Seminar: **SAICEcon09/0045/10.** 

#### 8 CSIR RESEARCH CAREER PATH ISSUES

During 2009 the author was asked by both Dr Maina, and Mr Verhaeghe to complete the Research Career Ladder, which was done during the cycle January/February 2010, requested by HR.

The author still have some concerns about the following:

- The 7 year past window used for placement on ladder window should cover the full Professional Career, i.e. outputs not limited to last 7-years. It was found that the NRF (see NRF Rating of Scientists Recognition of prior research Online applications: <a href="http://nrfinterim.nrf.ac.za">http://nrfinterim.nrf.ac.za</a> Internet: <a href="http://www.nrf.ac.za/evaluation">http://www.nrf.ac.za/evaluation</a>) actually allows previous research outputs in their evaluation of researchers. This was communicated by the author to Dr Rust, Mr Ittmann and Mr Verhaeghe, Dr Thulani and the current SRP chair, Dr Sean Moolman (amongst others).
- It is recommended that the spreadsheet allowing information to be added to be more flexible as the current version (SS-F-HR-047\_REV01.ods), as the author found it easier to create a separate document of "clarifying notes" as support for the Career Assessment.

Note: On a personal level, it need to be said that the author was well satisfied by the performance of the bonus scheme during the 2009 bonus performance cycle.

#### 9 EXTRAORDINARY PROFESSORSHIP AT UP – 2007 TO 2010

On December 5, 2006 the author received confirmation of a three year appointment as Extraordinary Professor at University of Pretoria (UP). The period is from January 1, 2007 to December 2009.

This keeps the door open to annual lecturing at UP, as well as potential R&D work such as the railway sleeper project mentioned in the previous report.

Owing to the RMPD Editorial Board Meeting that was held 6-7 March 2008 in Tokyo, the author could not present the annual lecture on Stress-In-Motion (SIM) technology at University of Pretoria (UP). The 2008 lecture was kindly presented by Prof Alex Visser of UP.

The 2010 cycle the lecture was given on March 4, 2010 at UP, in co-operation of Prof Wynand Steyn of UP to a total of 28 students.

#### 10 TIRE TECHNOLOGY INTERNATIONAL 2010

During....the author was directly invited by ...... to attend and present work on Stress-In-Motion (SIM) at the "**tire technology EXPO 2010**", which was held in Cologne, Germany, during Feb 9 to 11, 2010. See: <a href="http://www.tiretechnology-expo.com">http://www.tiretechnology-expo.com</a>

The author was included in Session 4, TYROSAFE, Wednesday Feb 2010. The session was well attended mainly from individuals representing mechanical engineering and tire industry, rather than the road industry.

The Tire Technology Expo 2010, leading international tire design and tire manufacturing exhibition once again introduced current and the best from our rubber-making industry in Cologne Messe (Germany). It was hailed by all who attended as a huge success, with exhibitors enjoying a renewed sense of confidence in the industry. There was an abundance of new technologies on show, demonstrating continued investment, and delegates were thrilled with the content of the Tire Technology Conference, which featured the strongest line-up in the event's 10-year history.

**Tire Technology Expo 2011** looks set to be even better with over 70% of space already sold before the end of this year's event!

#### In summary:

- Tire industry is huge;
- Vehicle industry is huge;
- The SIM technology was well received, and this opportunity allowed networking for players from above two fields with the "roads industry";
- The Roads industry operates a bit "in isolation" from above two industries in many aspects. It is therefore difficult to involve in all these related industries by a relatively small team (in this case the Author) trying to engage, "show-and-tell", as well as the commercialisation of the SIM technology to all above industries;
- The current commercialisation drive of the CSIR on the SIM technology is therefore applauded, and should be expanded if possible. This to include effective product development, fact sheets, marketing, market need survey, identification of new stakeholders, etc.
- Since the EXPO is running parallel conference sessions, opportunity exist to "show-and-tell". However, it should e pointed out that the engage in such an international event international partners are required, for both technology as well as exhibition experts.
- This 2010 tire EXPO/conference was run by a highly professional team;
- Tire Technology Expo 2011 is already scheduled for 15-17 February 2011, again in Cologne, Germany.

## **APPENDIX A**

# MINUTES OF THE 12th BOARD of EDITORS MEETING

March 24th 2010 LNEC Lisbon **Portugal** 

# Road Materials and Pavement Design: An International Journal Board of Editors Meeting

# MINUTES OF THE 12th BOARD of EDITORS MEETING March 24th 2010 LNEC Lisbon Portugal

Hussain Bahia (HB)
Morris De Beer (MB)
Hervé Di Benedetto (HDB)
Bill Buttlar (BB)
Andy Collop (ACC)
Manfred Partl (MP)
Jorge Sousa (JS)
Apologies
Zhongyin Guo (ZG)
Kimitoshi Hayano (KH)
Ulf Isacsson (UI)
Mihai Marastaneau (MH)
Rey Roque (RR)

#### Opening

The Editors-in-Chief (EiC) and Associate Editors expressed their appreciation to JS and LNEC for organising the meeting and LNEC and CRP for organising the RMPD seminar of 25th.

#### Review of Minutes of the 11th Board of Editors Meeting

The minutes of the 11th Board of Editors Meeting were approved.

HDB to ask Lavoisier to: Action: HDB

- (i) Indicate the 30% discount in subscription fee for individuals on the website.
- (ii) Modify the wording related to the awards programme on the web site (see section "award").
- (iii) Modify all literature related to the journal so that titles for editorial board members are removed.

#### **Impact Factor**

Noted that the Impact Factor for 2008 has reduced to 0.162 from 0.19 in 2007 (this is calculated as the number of citations (from any journal in the ISI database) in 2008 to papers published in RMPD in 2006 and 2007 divided by the number of papers published in RMPD in 2005 and 2006.). Also noted that the discussion and decision of last year will hopefully have an effect on next year's Impact Factor.

Agreed that a paragraph should be included in the email sent from the Editor-in-Chief after (initial review) encouraging authors to cite appropriate RMPD papers.

#### Paragraph to be added:

"Please note that you are strongly encouraged to carefully review previous issues of RMPD so that relevant articles can be cited, with particular attention to recently published articles (last two years). You can find an extensive list of RMPD articles and abstracts on the topic of your paper at the following website using the search engine provided: <a href="http://rmpd.revuesonline.com/">http://rmpd.revuesonline.com/</a>." **Action: HDB, HB, ACC** 

HDB reported that RMPD has been included in the TRB's Transportation Research Information Service (TRIS) (tris.trb.org).

#### **Paper Review Process**

HDB reminded everyone that to speed up the review process the tutor should review the paper once 2 reviews have been received. **Action: Tutors** 

Agreed that the EiC would check for multiple submissions of papers and that a full list for each tutor would be sent out after each annual meeting. **Action: EiC**HDB reported that the publisher is in final negotiations to purchase Fontis Works (www.fontismedia.com). HDB went through an on-line demonstration (login: demo, password: test). Agreed that HDB and ACC would work with the publisher to ensure that RMPD procedures could be implemented. Also agreed that a target date for implementation of the end of June 2010 should be imposed on the publisher. **Action: HDB,ACC**Agreed that EiC would send round a list of current papers in the review system to Tutors so that outstanding reviews can be chased. **Action: EiC** 

#### **Board Membership**

Red List (Remove)

- Jean-Marie Conrad (HDB to contact).
- Namho Kim (HDB to contact).
- Ad Pronk (HDB to contact).

#### Orange List (Monitor)

- John Harvey (HB to contact).
- Hai-Sui Yu (ACC to contact).
- Cedric Sauzeat (HDB to contact).

• Dariusz Sybilski (HDB to contact or speak to at EATA).

New Members to Invite

Shin Che Huang (HDB to invite, <a href="mailto:shuang@uwyo.edu">shuang@uwyo.edu</a>).

#### Reviewers to Try

- Huang Xiaoming, Nanjing University, China (huangxm@seu.edu.cn).
- Guillermo Thenoux, Catholic University of Chile, Chile (gthenoux@puc.cl).
- Fernando Martinez, University of Rosario, Argentina (femar@fceia.unr.edu.ar).
- Glynn Holleran, Fulton Hogan, New Zealand (glynn.holleran@fultonhogan.com).
- Susan Tighe, University of Waterloo, Canada (sltighe@uwaterloo.ca).
- Mofreh Saleh, University of Canterbury, New Zealand (mofreh.saleh@canterbury.ac.nz).
- Eyal Levenberg, Technion, Israel (elevenbe@technion.ac.il).
- Zhanping You, Michigan Tech, USA (zyou@mtu.edu).
- Nader Tabatabaee, Sharif University, Iran (nader@sharif.edu).
- Ghassan Chehab, American University of Beirut, Lebanon (gc06@aub.edu.lb).
- Phil Herrington, Opus, New Zealand (Phil.Herrington@Opus.co.nz).
- Rien Huurman, TU Delft, The Netherlands (M.Huurman@tudelft.nl).
- Rob Vos, AAPA, Australia (robert.vos@aapa.asn.au).
- Rebecca McDaniel, North Central Superpave Center, USA (<a href="mailto:rsmcdani@ecn.purdue.edu">rsmcdani@ecn.purdue.edu</a>).

It was agreed that the possibility of an additional Associate Editor would be reviewed once the new web system is operational.

#### **Future Special/Themed Issues**

Noted that all members of the board are encouraged to think about suitable topics for future Special Issues and potential Guest Editors. **Action: Editorial Board** 

3rd International Conference on Asphalt Materials, 2009

The "3rd International Conference on Asphalt Materials" took place on 6th – 8th August 2009 in Qing Dao, China. Chin Che Huang (WRI) was the local contact and a 15-paper RMPD Special Issue was produced.

#### Asphalt Rubber, 2009

AR will took place on 2<sub>nd</sub> – 4<sub>th</sub> November 2009 in Nanjing, China. The best 3 papers have been proposed by the chair of the Scientific Committee (JS) for submission to RMPD.

#### Environmental Aspects

Manfred Partl and Gabriele Tebaldi are the guest editors. 8 papers will be published as part of Volume 11: Issue 1.

#### Special Issue on Numerical Modelling

11 papers will be published probably in Volume 11: Issue 2. Bill Buttlar and Eshan Dave are the guest editors.

#### EATA 2010

This will take place in Parma, Italy on 15th - 16th June 2010, hosted by Antonio Montepara, Gabriele Tebaldi and Parma team. 20 papers will be in this issue. It was confirmed that the special issue that contained papers from EATA 08 and EATA 06 appear on the Thomson data base.

#### Special Issue on Concrete

Noted that Jeff Roesler was on sabbatical last year. BB to contact and see whether he is still interested in progressing. **Action: BB** 

Recent Advances in Stabilisation and Reclamation for Pavement Structures

MB and JS agreed to be the Guest Editors and HB will be EiC. Tuncer Edil will also be approached as a potential Guest Editor (HB to contact). Action: MB,HB

#### Request from India

No contact, may happen in the future.

#### AAPT

HDB reported that AAPT would be moving to a journal-type publication plus a conference type publication (both produced by AAPT in the first instance). The second stage could be to get the journal-type publication to be produced by an ISI-recognised journal such as RMPD (maybe in the next 2 years or so).

#### **Evaluation of the Journal**

Not including special issues, the following papers have been received: 19 in 1999, 29 in 2000, 29 in 2001, 25 in 2002, 33 in 2003, 46 in 2004, 54 in 2005, 71 in 2006, 102 in 2007, 59 in 2008 and 68 in 2009.

Details of papers published are in the table below:

Year	Considered	Published	Sci	SoA	Notes	Discus	Reject	Sci	%
			Paper					Paper %	published
2000	28	22	18	0	4	0	6	64	79
2001	25	22	13	0	9	0	3	52	88
2002	27	24	13	1	10	0	3	48	89
2003	28	23	16	0	6	1	5	57	82
2004	30	23	14	2	7	0	7	47	77
2005	35	24	16	2	6	0	11	46	69
2006	45	25	20	0	5	0	20	44	56
2007	64	34	32	0	2	0	30	50	53
2008	71	39	29	0	10	0	32	41	55
2009	70	38	28	1	9	0	32	40	54

#### **Subscribers**

HDB reported that there are subscribers from about 30 countries and that the publisher would offer a free e-subscription for one year to anyone who brings in a new subscriber.

Noted that it is the role of all board members to publicise the journal and help obtain new subscribers.

Agreed to email all authors who have submitted papers in RMPD to invite them to subscribe.

**Action: HB** 

#### Award

HDB reported that Consulpav and probably Total will sponsor the RMPD award in 2010. 3 papers have been short-listed from the review process as candidates for the award. It was agreed that the paper by Fu *et al.* entitled "Laboratory test Methods for Foamed Asphalt Mix Resilient Modulus" would win the award (Euro 3,500). **Action: HDB** 

It was agreed that in future, papers with any of the EiC as authors could not be considered for best paper award. HDB to transmit this to the publisher so that the relevant literature can be changed. It was also confirmed that in future the nominated top papers (maximum of 5) should be evaluated before the meeting by each editor attending the meeting so that the score of the papers could be discussed and decided.

**Action: HDB** 

#### **Any Other Business (aob)**

Noted that Antonio Gomes Correia (University of Minho) will launch a new journal that will include railways, airports and roads (particularly with a Geotechnical flavour). There may be some limited overlap with RMPD.

Agreed that JS would suppress the web site not hosted by Laviosier |and inform Robert Karlsson. HDB to thank Robert for his work. **Action: JS, HDB** 

Agreed that HB would set up an account at the University of Wisconsin for income from Seminars. **Action: HB** 

BB agreed to edit the RMPD review and summary forms. HDB to email the latest version of the forms. Action: HDB, BB

#### **Next Board Meeting**

The 13th Meeting of the Board of Editors will be held in Shanghai or Nanjing (with a Seminar) around the 2nd -4th March (to be confirmed). It will be organized by ZG. HDB to speak to ZG. **Action: HDB, ZG** 

#### **Closure of the Meeting**

The 12th Board of Editors Meeting was closed by thanking JS for hosting the meeting.

-- END OF THIS 2009/10 PG REPORT ---