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Personal profile—

## Dr Dave van der Meulen



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## Levels of capability

Assessed as developing on a Mode mid-high-6 growth curve, by means of a Career Path Appreciation interview, in 2003. At present time and age, this indicates capability to undertake the work mentioned below\*. The descriptions are generic: Dave applies them in the global railway industry.

### ***Work in the theme of Corporate Citizenship***

The major theme of judgment in this level is *Revealing*—generating a range of perceptions of complex systems and filtering the social, political and economic contexts within which they operate: Viewing peer relationships as collegial: Creating transnational networks—intellectual, economic, social: Screening the environment to identify and influence developments that might affect projects. This level of work is also known as Stratified Systems Theory (SST) Level VI and is generally associated with:

- Comprehending the economic, social, political, technological, and religious contexts, which alert and protect units in the level of Strategic Intent, and, where appropriate, imbed them into their host cultures.
- Enhancing the value of corporate assets.
- Sensitive awareness of the interconnectedness between local and global contexts and the need to blend institutional values with those of the host culture.
- Obtaining, monitoring and shaping intelligence about local and global contexts.
- Protecting strategic business units against excessive turbulence and alerting them to opportunities and pressures.
- Judging priorities for corporate investment and divestment.
- Representing an organization in the transnational arena.
- Overseeing the profit and loss of a number of strategic business units and assessing overall value.
- Working as a corporate collegium.
- Appraisal of each strategic unit and its fit in the strategic vision as a whole.
- Thriving on chaos and through it revealing the future.
- Decision-making based on patterns and trends indicating future possibilities.

The time horizon over which judgments can be evaluated and understood in this level can extend to fifteen to twenty years. Decisions are related to positioning the organization as a corporate entity that can continue to operate in the social, political and economic conditions fifteen or more years ahead.

### ***Work in the theme of Strategic Intent***

The major theme of judgment in this level is *Weaving*—making relationships between previously unrelated material; creating general rules and redefining fields of knowledge and experience: Engaging with an open context and deciding when it should be closed, operating a complex five level system, modifying its boundaries and coping with second-and third order consequences that arise: Seeing elements explicitly as inter-dependent; to change one part is to change the whole. This level of work is also known as Stratified Systems Theory Level V and is generally associated with:

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\*Quoted from BIOSS Southern Africa booklet *Understanding Your Career Path Appreciation*.

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- Keeping an organization viable as a long term financial and social entity by sustaining the external and internal well being of the organization in light of changes in the socio-economic, political and technological environment.
  - Establishing an organization within its industry both locally and globally.
  - Balancing the external environment with the internal needs of an organization.
  - Representing an organization in the external socio-economic and political context.
  - Representing an organization to itself.
  - Determining the strategic direction that is the source of strategic intent.
  - Communicating with those in the Strategic Development level (aka SST Level IV) by sharing strategic information.
  - Determining appropriate technology.
  - Relating and linking various organization divisions in terms of strategic intent.
  - Ensuring that budgetary structure and financial regulations are developed for an organization as a whole.
  - Creating an atmosphere for enhancement of an organization as a whole within its industry.

Some tasks cannot be completed in less than ten years, which would be the time horizon for the effective evaluation of judgments in this level.

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## Professional development

- 2013** Attended the *Informa Exploration, Mining & Processing Fundamentals Course* in Johannesburg, South Africa.
- 2004** Registered on the *International Register of Professional Engineers*.
- 1994** Completed the *Information Systems Management Programme* at Graduate School of Business, University of Cape Town.
- 1994** Awarded a *Doctor of Business Administration* degree by University of Pretoria.
- 1989** Completed the *Senior Management Programme* at University of Stellenbosch Business School.
- 1979** Completed four modules towards the *Diploma in Datametrics* at University of South Africa.
- 1979** Awarded a *Master of Business Leadership* degree by University of South Africa.
- 1972** Registered as *Professional Engineer* with the Engineering Council of South Africa.
- 1964** Awarded a *Bachelor of Science in Mechanical Engineering* degree by University of Cape Town.

[Links \(in this document\)](#)

## Memberships

*Chartered Fellow, Chartered Institute of Logistics & Transport* (since 2007, Member since 1993). Member of the National Council for South Africa, 2004.

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*Member, RailRoad Association of South Africa NPC (since 2005). Director 2009–2015.*

*Fellow, South African Institution of Mechanical Engineering (since 1998, Member since 1973).*

*Member, Air Brake Association, United States of America (since 1997).*

*Professional Member, Institute of Marketing Management, South Africa (1994-2005).*

*Member, South African Society for Railway Engineering (since 1981).*

[Links \(in this document\)](#)

## **Professional interests**

Making a contribution to identifying, understanding, leveraging, and implementing, the inherent competitive strengths of the railway transport mode, to promote sustainable alignment of railway industry stakeholders with globally relevant logistics- and mobility opportunities.

[Links \(in this document\)](#)

## **Languages**

Fluent in English and Afrikaans, plus a working knowledge of German.

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## Track record

### ***2004–: Managing Member***

#### **Railway Corporate Strategy Close Corporation, Pretoria, South Africa**

Established a consultancy to develop-, disseminate-, and apply research-based peer-reviewed insight, for positioning railways for effective, free, and sustainable competition and cooperation with other transport modes in the global logistics- and mobility settings. URL [www.railcorpstrat.com](http://www.railcorpstrat.com).

Railway Corporate Strategy's accumulated productive output is too voluminous to include in this document. Therefore, a comprehensive List of Assignments with brief details of all professional work undertaken is attached or, if not, available on request: Clients have included AECOM, Anglo Platinum; Arivia.kom; Assmang; Aurecon; Babcock & Brown, United Kingdom; Bombela Concession Company; Business Zone 1073; Catron-Theimeg Africa; Cleary Gottlieb Steen & Hamilton, France; Companhia Vale do Rio Doce, Mozambique; Coega Development Corporation; Council for Scientific and Industrial Research; Dar Al-Handasah, Lebanon; Dube Trade Port-Tongaat Hulett; Eastern Cape Province Government; Eskom Holdings, European Commission, Belgium; Exxaro Resources; Gauteng Provincial Government; Gautrain Management Agency; Hatch; Helm Financial Corporation, United States; International Railway Symposium, Turkey; Khuthele Projects; Kumba Iron Ore; Kumba Logistics; Lebone Engineering; Lwlapanda Business Intelligence; Metpro division of DCD Dorbyl; Minovox; Mott MacDonald; Nedbank; Northern Cape Province Government; Oliver Wyman, United States; Passenger Rail Agency of South Africa; Peace Parks Foundation; Railway Gazette International, United Kingdom; Richards Bay Coal Terminal; Rio Tinto; R&H Railway Consultants; SADC Infrastructure Corporation; Saha International; Sishen Iron Ore Company; SMEC South Africa; South African Department of Transport; South African Freight Logistics; Standard Bank of South Africa; Sub-Saharan Industrial Holdings; Trans Europe Network Executive Agency, Belgium; Transnet Freight Rail; Tugendhaft Wapnick Banchetti & Partners; VELA VKE Consulting Engineers; Virtual Consulting Engineers; Voith Turbo; Webber Wentzel; and Xitimela Leasing, Mauritius.

### ***1997–2003: Chief Engineer (Systemic Rail Solutions)***

#### **Spoornet, a division of Transnet Limited, Johannesburg**

Led railway technology- and systemic development: Tracked, interpreted, and predicted global railway technology trends, to develop insight with which to align railway technology operating expenditure of ZAR 3.5 billion, and capital expenditure of ZAR 1.3 billion, with strategic- and business imperatives and opportunities.

### ***1994–1996: Regional Manager***

#### **Spoornet, East London, South Africa**

Accountable for strategic-, general-, and bottom-line management of a general freight-, commuter-, and intercity passenger railway region, that deployed ZAR 820 million in assets and ZAR 170 million in operating expenditure, and employed 1700 people. It operated in the politically sensitive, economically disadvantaged Eastern Cape Province, home of Nelson Mandela.

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**1993: Senior Manager (Process Development),**

**Spoornet, Johannesburg**

Managed reengineering of railway service-delivery processes; research and development into service-delivery- and operating philosophies and technologies; acquiring, developing and implementing knowledge and processes to support quality service to external clients.

**1988–1992: Senior Manager (Product Development)**

**South African Transport Services (SATS) and Spoornet, Johannesburg**

Managed design and development of technical-, economic-, operational- and human interfaces, to align new train service products to business requirements. Implemented new services, e.g. high-speed time-sensitive intermodal trains, on main corridors.

**1985–1988: Research Engineer**

**South African Transport Services, Pretoria**

Managed Train Dynamics Section plus Engineering Development Centre: Responsible, among other, for research, development, and implementation of SATS' flagship 200-wagon, 20800 tonne trains on the Ermelo-Richards Bay coal export line.

**1965–1984: Various positions**

**South African Transport Services and South African Railways & Harbours,  
Pretoria and Johannesburg**

Responsible for incident investigation, locomotive maintenance management, quality management, rolling stock conceptual design, stress analysis, testing and instrumentation, and train handling development.

**1962–1963: Engine Designer**

**Meissner Finance Corporation, Cape Town**

Designed, developed, and tested experimental two-stroke internal combustion engines. Designed one experimental engine from first principles, outsourced its manufacture, and commissioned the completed product.

[Links \(in this document\)](#)

**Selected career highlights**

**2009-2017** Peer-reviewed manuscripts for *Journal of Rail & Rapid Transit* (8), *Journal of Transport and Supply Chain Management* (5), *International Heavy Haul Association* (4), *IEEE Transactions on Industrial Electronics* (2), *International Journal of Rail Transportation* (1) and *Transportation Research D* (1).

**2016** Invited to present *Policy considerations for positioning rail in South Africa as logistics and mobility leader in 2050* at the 35<sup>th</sup> Annual Southern African Transport Conference in Pretoria, South Africa.

**2016** Requested by the US Government Accountability Office to provide expert professional insight into electronically-controlled pneumatic train brakes in context of contested rulemaking under the Fixing America's Surface Transportation Act.

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- 2014** Attended the *3<sup>rd</sup> Annual African Railway Summit* in Johannesburg, South Africa.
- 2013** Attended the Informa *Heavy Haul Indonesia Conference* in Jakarta, Indonesia.
- 2012** Attended the International Union of Railways' *8<sup>th</sup> World Congress on High Speed Rail* in Philadelphia, Pennsylvania. Participated in a technical visit to Hyundai Rotem's assembly plant for commuter rail cars.
- 2012** Travelled the Rocky Mountaineer train from Calgary to Vancouver in Canada.
- 2012** Visited Milan and Brescia in Italy to view progress with their automated light metro systems.
- 2011** Visited Canadian Pacific Railway's Network Operations Centre, Alyth Hump Yard, and Intermodal Terminal, in Calgary, followed by a 220km technical tour from Calgary to Field across the Continental Divide via Kicking Horse Pass.
- 2011** Attended the *9<sup>th</sup> World Congress on Railway Research* in Lille, France.
- 2010** Attended the International Union of Railways' *7<sup>th</sup> World Congress on High Speed Rail*, and the *Modern Railways Exhibition*, in Beijing, China, with a technical visit to Beijing South Station and CRH high-speed trains Beijing-Tianjin return.
- 2010** Visited the BNSF-Union Pacific Joint Line, and North Antelope Rochelle Mine, in the context of heavy hauling coal from the Powder River Basin, Wyoming, United States of America.
- 2009** Attended *The Sustainable Railway* conference and *Nordic Rail* trade show in Jönköping, Sweden.
- 2009** Traveled the Shanghai Maglev Train and Shanghai-Beijing on a CRH high-speed EMU sleeper train; undertook a technical visit to Liucun Station and Qinhuangdao Port facilities for unloading-, stockpiling-, and shiploading 340x10<sup>6</sup> tons of coal per year.
- 2008-2009** Biographed in Marquis *Who's Who in Science and Engineering*.
- 2008** Traveled the Khabarovsk-Vladivostok sector of the Trans Siberian Railway, followed by a trip on the footplate of a Russian Railways freight train from Smolyaninovo to Partizansk to explore heavy haul potential.
- 2008** Attended the *New Opera (Operating Project for a European Rail Freight Network) Final Conference*, organized by UNIFE, the European Rail Industry, in Brussels.
- 2008** Attended the *Advanced Bus Rapid Transit Implementation Workshop* at Southern African Transport Conference in Pretoria, South Africa.
- 2008** Visited Korail's Goyang KTX high-speed train depot in Seoul, Korea, and traveled on KTX high-speed trains Seoul-Daejeon return.
- 2008** Visited Ho Chi Minh City and Hanoi to acquire an appreciation of urban rail development in the context of Vietnam's economic development trajectory.
- 2007** Witnessed the system acceptance test of three-phase variable voltage variable frequency propulsion equipment for regional rapid transit electric multiple units at a manufacturer in Sweden.
- 2007** Undertook site inspection of bogies for regional rapid transit multiple units at a centre of excellence in Siegen, Germany.
- 2007** Undertook a Technical visit to Kiruna Mine and Narvik Port, and travelled the section of the Nordic Heavy Haul line between them.

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- 2007** Attended the *1<sup>st</sup> Global Rail Freight Conference*, hosted by the International Union of Railways and Indian Railways, in New Delhi, India.
- 2006** Traveled Turkish State Railways' existing Ankara-Istanbul line, to view construction of its adjoining dedicated high-speed railway.
- 2006** Visited diesel locomotive builders in China, to evaluate their capability to build locomotives with hydrodynamic transmission to a client's requirements.
- 2006** Visited the *InnoTrans International Trade Fair for Transport Technology* in Berlin, Germany.
- 2005** Attended the *8<sup>th</sup> International Heavy Haul Conference*, with theme Safety, Environment, and Productivity, in Rio de Janeiro, Brazil.
- 2003** Established Railway Corporate Strategy Close Corporation.
- 2003** Made a presentation on *Railway corporate strategy: Global fundamentals* to KTH Royal Institute of Technology Railway Group, Stockholm, Sweden.
- 2003** Invited as expert by the European Commission to evaluate railway projects proposed under the Sustainable Surface Transport Priority of the 6<sup>th</sup> EU Framework Programme for Research and Technological Development.
- 2003** Invited by the European Rail Research Institute to present *Heavy Haul: The solution for Europe's future?* at its Interactive Conference in Paris.
- 2000–2003** Leveraged heavy-haul trains into the Information Age by championing a cable-based integrated electronically controlled pneumatic braking plus wire distributed power pilot scheme, on the Ermelo-Richards Bay coal export operation, and by leading the project towards conversion of the entire locomotive and wagon fleets.
- 2002** Traveled Québec North Shore on the footplate of a Québec Cartier Railway iron ore train equipped with electronically controlled pneumatic brakes.
- 2002** Audited the strategic positioning of Alfred County Railway, a branch line concession in Kwa-Zulu Natal Province, South Africa.
- 2002** Initiated and managed Spoornet's Integrated Safety Project, to identify and understand systemic operating safety risks, with a view to mitigating them by human factors-, information- and railway technology interventions.
- 2000–2001** Represented Spoornet in the Gautrain Rapid Rail Link Project Review Committee.
- 2001** Traveled at 400km/h on the Transrapid 08 magnetic levitation train at the Emsland Test Facility in Germany.
- 1997–2000** Visited suppliers and operators in the United States, France, Australia, and Canada, to study and to influence new developments in electronically controlled pneumatic braking and wireline distributed power.
- 1999** Responsible for organizing the program content of a European Rail Research Institute/Spoornet Interactive Seminar in Pretoria, South Africa.
- 1999** Promoted Spoornet Engineering through sponsorship of and participation in AfricaRail '99 Conference & Exhibition in Johannesburg, South Africa.
- 1998** Traveled the Bern-Lötschberg-Simplon mainline, and the Swiss Federal Railways' Gotthard Pass, on the footplate of freight trains.



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- 1998** Consulted to the European Rail Research Institute and selected European railways in Minden, Germany, regarding an implementation strategy for composition brake blocks on freight wagons, to reduce noise emission.
  - 1998** Visited BHP Iron Ore railway at Port Hedland in the Australian Pilbara to discuss experiences with radio electronically controlled pneumatic braking.
  - 1997** Attended the *3<sup>rd</sup> World Congress on Railway Research* in Firenze, Italy.
  - 1997** Traveled Oregon's Blue Mountains on the footplate of a Union Pacific freight train with radio distributed power.
  - 1996** Elected Vice-chairperson of East London Afrikaans Chamber of Business.
  - 1996** Led a SpoorNet East London Region labour- management mission to Singapore, to sensitize it to global issues, and to stimulate insight into challenges in an information economy. Attended the Marketing Institute of Singapore conference *Achieving and sustaining marketing successes: Innovative and value-added perspectives*.
  - 1996** Invited to participate in Eskom's Eastern Cape Scenario Workshop, the Eastern Cape Province Spatial Development Plan, and the Wild Coast Spatial Development Initiative.
  - 1996** Facilitator in an Industry Orientation Programme, to give new- and established top-500 managers insight into SpoorNet's historic origins, and its relationships with the new South Africa and the global economy.
  - 1995–1996** Member of Border Chamber of Business Infrastructure Committee.
  - 1994–1996** Member of East London Metropolitan Transport Advisory Board.
  - 1994–1996** Director of Orange River Rail Company, an operating concessionaire that turned over ZAR 1.5 million per year, on the 180km Dreunberg-Barkly East branch line, that features eight reverses in Eastern Cape Province's dramatic landscapes.
  - 1994** Participated in a SpoorNet Ambassadors Programme to Sweden's Statens Järnvägen, to study freight railway service philosophy- and technology.
  - 1993** Visited the China Academy of Railway Sciences' research facilities in Beijing, and China Railways' Beijing-Qinhuangdao heavy-haul coal export railway.
  - 1993** Attended an Information Engineering Orientation Course, presented by Upper Case System Solutions, Johannesburg.
  - 1993** Sponsored an operations reengineering project using an external consulting house, to map SpoorNet's service delivery processes, prior to reengineering.
  - 1991** Attended the National Research Council's Symposium on Advanced Train Control Systems in Denver, United States of America.
  - 1991** Visited Germany to negotiate re-specification of air brakes donated to Société Nationale des Chemins de fer Zaïrois.
  - 1988–1992** Member of SpoorNet's Locomotive Forum and of its Wagon Utilization Committee, with responsibility for aligning technical characteristics of rolling stock with operating requirements.
  - 1989–1990** Convened a Conference of the Technical Committee working group, to promote air-brake compatibility for contiguous Southern African railways: Demonstrated Association of American Railroads' air brakes to members in Zimbabwe, and to Société Nationale des Chemins de fer Zaïrois in Democratic Republic of Congo.

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- 1989** Descended Australia's Connors Range to Dalrymple Bay on the footplate of a Queensland Rail electrically-hauled radio distributed power train.
  - 1989** Led the team that set world records for the longest (7300 meters), heaviest (70 000 tonnes) freight train that conveyed the most wagons (660 number) over the longest distance (861 km), on the Sishen-Saldanha iron ore export line.
  - 1988** Visited Hong Kong Mass Transit Railway Company, to study simulator training for train drivers.
  - 1988** Visited China Railways' heavy haul marshalling yard and steam locomotive factory at Datong, and travelled its coal export route as far as Beijing.
  - 1987** Visited operators and suppliers in USA and UK to study intermodal-, RoadRailer-, and short-line transportation issues, practices and technologies.
  - 1987** Member of a South African Transport Services team that consulted to Israel Railways on a proposed coal railway from Eilat to Har Zin. Traveled the Tel Aviv-Haifa line on the footplate of a passenger train.
  - 1984** Visited railway operators and steel mills in USA, Canada, and Europe to assess process capability of continuous casting for rail- and axle steels.
  - 1983** Audited quality management of locomotive traction motor manufacture in Sweden.
  - 1983** Attended a Quality Assurance Course presented by Dr. W. Edwards Deming.
  - 1979–1982** Member of Wheel-rail Interaction Committee that upgraded Ermelo-Richards Bay route to 26 tonnes/axle: Responsible for infrastructure-train systemic design. The 200-wagon, 20800-tonne trains won the South African Institution of Mechanical Engineers' 1990 Projects and Systems Award. In 1994 Mercer Management Consulting benchmarked the operation as lowest-cost-per-net-ton-kilometer world leader.
  - 1979–1981** Member of SATS' High Speed Task Group that implemented the 160km/h Metroblitz Pretoria-Johannesburg intercity pilot train: Responsible for systemic design including automatic train protection performance specification. Studied high-speed operations on footplate trips, Rome-Ancona on a FS Pendolino tilting train, and München-Augsburg on a 200km/h train headed by a DB E103 locomotive.
  - 1976** Learned to drive long, heavy freight trains, a skill that provided an empirical foundation for many subsequent train design and -application developments.

[Links \(in this document\)](#)

## Publications

- 2017 Forthcoming** Assessing obstacles to renewable energy in heavy haul traction. Co-author L.C. (Fienie) Möller. *11<sup>th</sup> International Heavy Haul Association Conference*. Cape Town, South Africa.
- 2017** Rail's three genetic technologies position it for a robust future. *Proc. The Future of Transportation World Conference*. Cologne, Germany: UKI Media & Events.
- 2016** Policy considerations for positioning rail as logistics and mobility leader in 2050. Co-author L.C. Möller. *Proc. 11<sup>th</sup> World Congress on Railway Research*. Milan, Italy.
- 2015** Railways in renaissance: Review of achievements and reflection on prospects. Co-author L.C. Möller. In K. Zboinski (Ed.): *Railway research—selected topics on development, safety and technology*. Rijeka, Croatia: InTech, pp. 1-31.

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- 2015** Some concepts for maximizing renewable energy in railway traction. *Third International Symposium on Energy Challenges and Mechanics*. Aberdeen, Scotland: North Sea Conference & Journal.
- 2015** Global railway renaissance and its influence on logistics and mobility in Africa. In *Africa Forum 2015*. Arusha, Tanzania: Chartered Institute of Logistics and Transport.
- 2014** Sustainable heavy haul traction energy: A review of systemic issues. Co-author L.C. Möller. *Proc. Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit*, 228(6) pp. 687-694, a Special Issue from the International Heavy Haul Association Conference 2013.
- 2014** From global research to national rail policy. *Proc. Transport Research Arena, Outreach Marketplace Poster #28020*. Paris, France: Programme Committee of the Transport Research Arena 2014.
- 2013** Towards sustainable heavy haul traction energy: A review. Co-author L.C. Möller. *Proc. 10<sup>th</sup> International Heavy Haul Conference*, pp. 904-910. New Delhi, India: International Heavy Haul Association. Journal of Rail and Rapid Transit selected a revised version for publication in 2014.
- 2012** Urban guided transit: Positioning rail and its rubber-tyred competitors. Co-author L.C. Möller. *Proc. 31<sup>st</sup> Annual Southern African Transport Conference*, pp. 211-221. Pretoria, South Africa.
- 2012** European- and global urban guided transit: Green- and socio-economic fit. Co-author L.C. Möller. *Proc. Transport Research Arena, Procedia—Social and Behavioral Sciences* 48, pp. 415-424. Athens, Greece.
- 2012** Competitiveness and sustainability of railways. Co-author L.C. Möller. In X. Perpiñà (Ed.): *Infrastructure design, signalling and security in railway*. Rijeka, Croatia: InTech, pp. 69-94.
- 2011** Differences and similarities: Learning from heavy haul in cold and heat. Main author Maxim Keyno. *Proc. International Heavy Haul Specialist Technical Session: Railroading in Extreme Conditions*. Calgary, Canada: International Heavy Haul Association.
- 2011** Competitiveness and sustainability: Scenarios for rail redevelopment in South Africa. *Proc. Railways and Harbours Conference & Exhibition*. Johannesburg, South Africa.
- 2010** Competitiveness and sustainability: Four scenarios for line haul rail in South Africa. In: *Engaging the Future*. South African Institution of Civil Engineering Railway and Harbour Division Symposium. Midrand, South Africa.
- 2010** Appraisal criteria for very high speed rail in South Africa. Co-author L.C. Möller. *Proc. 29<sup>th</sup> Annual Southern African Transport Conference*, pp. 663-672. Pretoria, South Africa.
- 2010** How might the railway renaissance evolve in South Africa? *Proc. 29<sup>th</sup> Annual Southern African Transport Conference*, pp. 630-639. Pretoria, South Africa.
- 2010** Heavy haul railway electrification—experiences and prospects. *Proc. Joint Rail Conference*, JRC2010-36151. Urbana, United States of America: ASME, IEEE, ASCE, TRB, AREMA, and University of Illinois.
- 2009** Innovation and globalization: Mainstreams and margins. *Proc. 9<sup>th</sup> International Heavy Haul Conference*, Vol. III. Shanghai, China: International Heavy Haul Association.

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- 2008** Selected heavy haul insights: Some South African perspectives. *Proc. Conference on Rolling Stock of XXI Century*, pp. 117-122. Khabarovsk, Russia: Far Eastern State Transport University.
- 2008** Critical events and external intervention in railway adaptation. Co-author L.C. Möller. *Proc. 27<sup>th</sup> Annual Southern African Transport Conference*, pp. 165-174. Pretoria, South Africa.
- 2008** Ultimate interoperability: Line-haul railways as global corporate citizens. Co-author L.C. Möller. *Proc. 8<sup>th</sup> World Congress on Railway Research*, PN.1.2. Seoul, Korea.
- 2008** Strategies for sustainable mobility: Urban railways as global corporate citizens. Co-author L.C. Möller. *Proc. 8<sup>th</sup> World Congress on Railway Research*, G.2.2.2.1. Seoul, Korea.
- 2007** Some global touchstones in railway adaptation. Co-author L.C. Möller. *Proc. 26<sup>th</sup> Annual Southern African Transport Conference*, pp. 660-669. Pretoria, South Africa.
- 2007** Leveraging global railway insight into South Africa and Africa. *Proc. 26<sup>th</sup> Annual Southern African Transport Conference*, pp. 650-659. Pretoria, South Africa.
- 2007** Exploring the strategic positioning of railways for competitiveness and sustainability. *Conference Proc. AfricaRail 2007*, pp.130-132. Johannesburg, South Africa: Terrapinn.
- 2007** Railway globalization and heavy haul. *Proc. International Heavy Haul Association Specialist Technical Session*, pp. 329-338. Kiruna, Sweden: International Heavy Haul Association.
- 2006** Selected railway corporate strategy insights, with special reference to Turkey. *Proc. International Railway Symposium*, Vol. 1, pp. 411-422. Ankara and Istanbul, Turkey: Turkish State Railways and Ministry of Transport.
- 2006** A global perspective on positioning European railways. *FAV Newsletter* [Forschungs- und Anwendungsverbund Verkehrssystemtechnik], Berlin, Germany: No. 10, p. 2.
- 2006** Complementarity between rail and road in promoting African development. *Proc. 3<sup>rd</sup> International Road Federation / South African Road Federation Regional Conference for Africa*. Durban, South Africa.
- 2006** Identifying the key factors for long-term sustainability. *Railway Gazette International*, Vol. 162, pp. 529-530, 533-534, and 536. It attracted editorial endorsement, *The engine of change*, on p. 483.
- 2006** Ten questions for South African railway stakeholders. *Proc. 25<sup>th</sup> Annual Southern African Transport Conference*. Pretoria, South Africa.
- 2006** Railway globalization: Leveraging insight from developed- into developing regions. Co-author L.C. Möller. *Proc. 7<sup>th</sup> World Congress on Railway Research*. Montréal, Canada.
- 2004** A systemic approach to modulating train braking and -traction. *Proc. 96<sup>th</sup> Annual Convention*, pp. 146-154. Chicago, United States of America: Air Brake Association.
- 2003** Globalization and open architecture for railways: The role of integrated ECP braking and distributed power. *Proc. 6<sup>th</sup> World Congress on Railway Research*. Edinburgh, Scotland.
- 2003** Why heavy haul? Learning from the cost-effectiveness of heavy axle loads in South Africa. *Proc. Interactive Conference "Heavy Haul: The solution for Europe's future?"*

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Paris, France: European Rail Research Institute, International Union of Railways, and Union of European Railway Industries.

- 2002** Integrated ECP braking plus distributed power: From business case to strategic context. Meeting of the *South African Society for Railway Engineering*. Esselen Park, Gauteng, South Africa.
- 2002** Developing business cases for integrated ECP braking plus distributed power. *Proc. 94<sup>th</sup> Annual Convention*, pp. 117-131. Chicago, United States of America: Air Brake Association.
- 2001** Strategies for freight train integrated ECP braking plus distributed power. *Proc. 5<sup>th</sup> World Congress on Railway Research*. Cologne, Germany.
- 2001** Progress with evaluation of cable-based ECP braking and distributed power. *Proc. 7<sup>th</sup> International Heavy Haul Conference*, pp. 517-524. Brisbane, Australia: International Heavy Haul Association and Railway Technical Society of Australasia.
- 2001** Soft science and heavy haul: Multivariate statistics and systemic drivers. *Proc. 7<sup>th</sup> International Heavy Haul Conference*, pp. 255-263. Brisbane, Australia: International Heavy Haul Association and Railway Technical Society of Australasia.
- 2000** Evaluation of wireline ECP braking and DP on the Ermelo-Richards Bay coal export line. Co-author Alan L. Cortie. *Proc. 92<sup>nd</sup> Annual Convention*, pp. 156-174. Chicago, United States of America: Air Brake Association.
- 2000** A challenge to traditional perspectives on freight railway energy provisioning. *Proc. Interaction Programme "Alternate Traction Technologies."* Johannesburg, South Africa: International Union of Railways and Spoornet. Editorially endorsed in *International Railway Journal*, Vol. 40(2), p. 1.
- 1999** Some insights from long, heavy, freight trains. *Proc. Interactive Seminar*. Pretoria, South Africa: European Rail Research Institute and Spoornet.
- 1999** Freight railways for the new millennium: Africa as global player? Co-author George J.C. Parker. *Proc. South African Transport Conference*, Session 2C, pp. 1-13. Pretoria, South Africa.
- 1999** Early 2000s railway technology for Africa. In *AfricaRail '99*. Johannesburg, South Africa: AIC Conferences.
- 1998** Towards the next level of train handling technology. Co-author A. L. Cortie. *Proc. 90<sup>th</sup> Annual Convention*, pp. 159-172. Chicago, United States of America: Air Brake Association.
- 1997** Some practical alignment issues in transformation of a large, multicultural organization. *Proc. 4<sup>th</sup> Annual International Conference on Advances in Management*, p. 24. Rexdale, Canada: Center for Advanced Studies in Management.
- 1997** Industrial Age meets Information Age: Heavy haul as freight railway survival strategy. *Proc. 6<sup>th</sup> International Heavy Haul Railway Conference*, Vol. 1, pp. 7-21. Cape Town, South Africa: International Heavy Haul Association.
- 1995** Transformation issues in positioning a commercialising organisation in a globally exposed environment. Co-author Dr. Pieter W. A. Möller. *Abstracts of the International Conference on Management in Africa*, pp. 72-73. Pretoria, South Africa: University of Pretoria.

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