Global Challenges in Smart Logistics

Innovation driving supply chain control

Programme
November 13, 2013

Focus on international business and cooperation
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00-10.00</td>
<td>Registration &amp; Coffee</td>
</tr>
<tr>
<td>10.00-10.10</td>
<td><strong>Theaterzaal</strong>&lt;br&gt;Opening and welcome by seminar chairman Mr. Enno Osinga - Senior Vice President Cargo-Amsterdam Airport Schiphol</td>
</tr>
<tr>
<td>10.10-10.40</td>
<td>Introduction by drs. Jasper Wesseling&lt;br&gt;Director Innovation &amp; Knowledge, Ministry of Economic Affairs</td>
</tr>
<tr>
<td>10.40-11.10</td>
<td><strong>Keynote</strong>: The Netherlands: Prof. dr. Henk Zijm. Professor of Production and Supply Chain Management, University of Twente, Scientific Director, Dutch Institute for Advanced Logistics (DINALOG)</td>
</tr>
<tr>
<td>11.10-11.40</td>
<td><strong>Keynote</strong>: Germany: Dr. Markus Kückelhaus - Director solutions &amp; innovation. DHL customer solutions &amp; Innovation</td>
</tr>
<tr>
<td>11.40-12.10</td>
<td><strong>Keynote</strong>: India: Ms. Bhairavi Jani - Executive Director. SCA Group</td>
</tr>
<tr>
<td>11.50-13.00</td>
<td>Lunch</td>
</tr>
<tr>
<td>12.00-13.00</td>
<td><strong>Maurits Foyer Lunch</strong></td>
</tr>
<tr>
<td>13.00-13.30</td>
<td>Israel: Mr. Yuval Hadas Ph.D, Head of Logistics studies&lt;br&gt;Bar Ilan University - Department of Management</td>
</tr>
<tr>
<td>13.00-13.30</td>
<td>Japan: Prof dr. Eiichi Taniguchi, Kyoto University</td>
</tr>
<tr>
<td>13.30-14.00</td>
<td>South Korea: Mr. Jonghak Park President of Pantos Logistics Benelux</td>
</tr>
<tr>
<td>13.30-14.00</td>
<td>NL: Matthijs Crieteen MSc Deputy Director Modint</td>
</tr>
<tr>
<td>14.00-15.00</td>
<td><strong>Maurits Foyer Coffee break</strong></td>
</tr>
<tr>
<td>14.00-15.00</td>
<td><strong>Queens Club Matchmaking</strong> (short face to face with international speakers or Science &amp; Technology Officers)</td>
</tr>
<tr>
<td>14.00-15.00</td>
<td><strong>Johan Friso Foyer Horizon 2020 – ir. Paul Kruis</strong> (short presentation)</td>
</tr>
<tr>
<td>15.00-15.30</td>
<td>NL: Prof. dr. Jos van Hillegersberg, University of Twente</td>
</tr>
<tr>
<td>15.00-15.30</td>
<td>China: Dr. Lei Zhao Associate professor Director of the Institute of Operations Research and Statistics Department of Industrial Engineering, Tsinghua University Beijing</td>
</tr>
<tr>
<td>15.30-16.00</td>
<td>Germany: Thorsten Huelsmann CEO EffizienzCluster LogistikRuhr</td>
</tr>
<tr>
<td>15.30-16.00</td>
<td>Singapore: Prof dr. Lau Hoong Chui Deputy Director, Living Analytics Research Center (Singapore Management University)</td>
</tr>
<tr>
<td>16.00-16.30</td>
<td><strong>Theaterzaal</strong>&lt;br&gt;Interactive discussion with Mr. drs. Bart van Bolhuis, Director for International Affairs of Ministry of Infrastructure and the Environment, moderated by the chairman.</td>
</tr>
<tr>
<td>16.30-16.35</td>
<td><strong>Closure</strong></td>
</tr>
<tr>
<td>16.35-17.30</td>
<td><strong>Maurits Foyer Drinks</strong></td>
</tr>
</tbody>
</table>
Global Challenges in Smart Logistics
Innovation driving supply chain control

The Dutch logistics sector is strong, large, diverse and internationally leading in innovation. Smart Logistics is highly oriented towards cooperation between industry and academia, has a strong international ambition and is blessed with both large companies and many, many strong SME’s. Societal challenges in areas like energy, and the environment are numerous and therefore present many opportunities for this sector.

Throughout the world there is a growing need for new Smart Logistics solutions. Therefore new supply chain control mechanisms need to be developed. The Netherlands houses a wide array of knowledge institutes and companies (both SME’s and large) that are focusing on innovations in this area.

The focus of this congress is on three themes: Synchronmodality, Cross Chain Control Centre (4C) and Service Logistics. The conference aims to support the (international) innovation agenda and ambitions of the Dutch logistics-sector by presenting world-class speakers who will showcase innovative solutions that are currently under development in their countries. The seminar, through carefully selected speakers, offers you a broad overview of the international innovation community in Smart Logistics.

With this event we intend to stimulate Dutch innovators to look beyond our national borders to assess and strengthen their international competitive position through dialogue and exchange of ideas with today’s speakers. For this, we offer all attendees an opportunity for individual ‘match-making’ with the speakers during the breaks in the program.

The Ministry of Economic Affairs can assist you in your international ambitions through the NL Agency, be it in innovation, exports or acquiring foreign direct investment.

The Network of Netherlands Offices for Science & Technology (NOST, ‘Innovatie Attaché Netwerk’ in Dutch) is represented in 16 countries and is part of the Ministry of Economic Affairs. The NOST network supports Dutch (innovative) industry, knowledge institutes and government by informing them about the state-of-the-art developments in foreign countries and by introducing them to relevant foreign parties with the aim of stimulating international scientific and technological cooperation. The seminar today is a prime example of our services.

Today’s congress is a joint production of the NOST Network and Dinalog, the Dutch Institute for Advanced Logistics in the Netherlands. Dinalog was founded in 2009 to provide the best means to achieve the Dutch ambition in becoming the European market leader as controller of transnational flows of goods and to maintain a leading position in logistics and supply chain management as well. Dinalog is fully embraced by the business world, trade organizations, main ports, authorities and knowledge institutions. And that shows the strategy has a true value to add: Open Innovation, the driving force behind Dinalog Institute and Dinalog Campus. For more information, please visit the Dinalog website: http://www.dinalog.nl/en/home/

We would like to express our sincere gratitude and appreciation to Dinalog and its International Liaison officer, Liesbeth Staps, for their cooperation and without whom this conference would not have been possible.

We hope you will have a fruitful and productive congress!

NOST Network
Part of the NL Agency
www.iangewerk.nl
and www.dinalog.nl
Speakers

• Chairman – Mr. Enno Osinga
• Introduction – drs. Jasper Wesseling
• Keynote – Prof.dr. Henk Zijm
• Keynote – Dr. Markus Kückelhaus
• Keynote – Ms. Bhairavi Jani
• Moderator – Prof.dr. Albert Veenstra
• Mr. Yuval Hadas Ph.D.
• Mr. Jonghak Park
• Prof.dr. Jos van Hillegersberg
• Mr. Thorsten Huelsmann
• Moderator – Prof.dr. Tom van Woensel
• Prof.dr. Eiichi Taniguchi
• Matthijs Crietee MSc
• Dr. Lei Zhao
• Prof.dr. Lau Hoong Chuin
• Moderator – Ben Gräve
• João Guilherme Araújo MBA
• Prof. James Noble Ph.D.P.E.
• Mr. Baptiste Janique
• Michiel Kuipers MBA
• Horizon 2020 – Ir. Paul Kruis
Mr Enno D. Osinga

Enno D. Osinga (63) has a distinguished career in Aviation and Logistics. Dutch born and educated he served as an officer in the Royal Netherlands Marine Corps. Following the completion of his degree in Business Administration at Bradford University (UK) he spent some years with ITT UK and ICI UK in various positions. He joined KLM Royal Dutch Airlines in 1978 and over a period of 20 years worked in senior management positions in the Netherlands and abroad. He then moved to DHL Express as Managing Director the Netherlands and was later invited to become a member of the European Board of DHL Express. During that period he was also Vice Chairman of Transport and Logistics The Netherlands, the employer’s organization for the transport industry. In 2005 he joined Client Logic as interim CEO Continental Europe in charge of the rationalization of the European business. In September 2006 he joined the Schiphol Group as Senior Vice President Cargo. In that role he is responsible for the implementation of the long term Cargo Strategy of the Airport through which Schiphol will safeguard its position as a leading Mainport for the logistics industry.

Mr Osinga is a non executive board member of Cargonaut, the community system of the Dutch air cargo Community. He is Vice Chairman of TIACA and a board member of ACN, the Dutch Air Cargo Association. He is member of the Executive Board of DINALOG, the Dutch Institute for Advanced Logistics.

Schiphol Cargo – Creating Connections

Amsterdam Airport Schiphol is Europe’s 3rd largest cargo airport (1.5 million tonnes in 2012). 101 airlines (of which 24 full freighter airlines) connect Schiphol with 317 destinations worldwide. Asia is Schiphol’s largest market, with 45% of cargo being transported to and from Asia. Schiphol is connected to every economic centre in the world, through an optimal combination of both direct full freighter flights and belly freight.

Amsterdam Airport Schiphol provides excellent facilities such as 4 perishable centres, cargo fast lanes, two animal centres and a large network of Europe’s top logistic service providers. Over 150 logistics service providers use Schiphol as base for their logistic activities. In addition, over half of all Asian and American European Distribution Centres are located in the Netherlands.

Schiphol is actively pursuing innovation and sustainability in the air cargo supply chain. Schiphol SmartGate Cargo is a joint project by the airport, customs and the air cargo industry to integrate monitoring of goods leaving the EU from Schiphol, setting the standard for future air cargo handling. Being smart also means being paperless, therefore Schiphol actively stimulates the use of e-freight.

Schiphol is Europe’s preferred cargo airport. Find out how we can create your connection!

Key Personnel
  • Mr J. Nijhuis, President & CEO
  • Mr A. Rutten, Executive Vice President & COO
  • Mr M. de Groof, Executive Vice President & CCO
  • Mr E. Osinga, Senior Vice President Cargo

Email: cargo@schiphol.nl
Drs. Jasper Karel Wesseling

Date of birth: April 12, 1966 (Leiden). j.k.wesseling@minez.nl

Former positions since 2003: Management Team of EVD Agency for international business, Head of Bureau Secretary General of Economic Affairs, Director Spatial Economic Policy. Academic education: Southwestern University, Texas USA, University of Amsterdam (Economics)

Company
Ministry of Economic Affairs, Directorate General of Enterprise and Innovation (DG E&I) DG E&I is responsible for the Topsector approach, business contacts, ICT & administrative burden and Biobased Economy. The DG en most of all the department Innovation & Knowledge has a special government-wide responsibility for Dutch innovation policies. As a part of this task, I&K has the responsibility for the applied research institutes (TNO, DLO, ECN, NLR, Deltares en Marin). Within the innovation policy there is an important role for the basic research institutes (NWO, KNAW and universities) and de EU agenda/ Horizon 2020. K&I works on these topics in close cooperation with the (Dutch) Ministry of Education, Culture & Science.

Small World, Great Logistics
- Overview of Dutch Top Sector approach
- International challenges to Top Sector Logistics: as a facilitator to other sectors and as a key player in an international competitive setting PPP and international networking as key to competitiveness

Profile
Drs. Jasper Karel Wesseling

Company / Institute
- Ministry of Economic Affairs, Directorate General of Enterprise and Innovation (DG E&I)

Position
- Deputy Director General for Enterprise & Innovation (DGE&I)
- Director Innovation & Knowledge department (I&K), Ministry of Economic Affairs, Agriculture & Innovation.

Website references
- www.minez.nl
Challenges in Logistics: perspectives from the Netherlands

In the past decades, the Netherlands have gained a dominant position in worldwide logistics as Gateway to Europe. However, this still strong position is challenged, partly as a result of changing economic powers. In response, the Dutch government, logistics industry and research institutes have joined efforts to design and execute programs geared towards logistics innovation. We briefly review results of these programs and discuss future actions that offer excellent opportunities to design both competitive and sustainable supply chains. In addition, we point out important developments in the European Horizon 2020 Program, including the recently launched European Technology Platform for Logistics and Supply Chain Management.

Main related R&D activities and projects

DINALOG (Dutch Institute for Advanced Logistics) is responsible for executing the Dutch Innovation Program on Logistics and Supply Chain Management driving collaboration in and across supply chains and modalities to increase competitiveness. To this end, Dinalog initiates R&D and demonstration projects on topics including infrastructure and ICT, Trade Compliance, Synchronomodality, Cross Chain Control Centers, Service Logistics and Supply Chain Finance. Other core activities include initiating programs on Human Capital development in logistics and supply chain management, an incubator program for young start-ups and encouraging innovation in SMEs as well as providing a logistics new business hub. Dinalog is also involved in a variety of EU-based research projects on logistic clusters, co-modality in transport and urban logistics, and actively cooperates with several organisations worldwide that stimulate logistics innovation (including the World Bank). Dinalog is one of the initiators of the recently officially recognized European Technology Platform for Logistics ALICE.
Dr. Markus Kückelhaus

Key areas of expertise
- Innovation Management, Trend Research, Product Development
- Strategy & Implementation
- Controlling, Finance and Accounting

Markus Kückelhaus has been Director at Solutions & Innovations, the innovation unit of DHL, since August 2012. Previously he worked as a free-lance consultant for DHL, supporting the development of a group wide innovation system and implementing strategies and business models for innovation initiatives. His career history also includes positions as Head of Controlling for the biggest German DIY retailer OBI, Principal at CTcon Management Consulting and lecturer at the WHU Graduate School of Management in Koblenz as well as the Victoria-University of Wellington. He studied Economics at the University of Bonn/University of Wisconsin and accomplished his PhD at the WHU Graduate School of Management in Koblenz.

Logistic Trends & Implications for the Future
The DHL Logistics Trend Radar delivers a new tool enabling to evaluate the latest trends in the logistics industry, and assess their potential impact. The tool comprises an at-a-glance Logistics Trend Radar graphic, an overview table of the key social and business trends, an overview table of the key technology trends, and numerous in-depth trend-specific impact analyses. Information on use cases, pilots, and sources are provided. This tool is a comprehensive repository of knowledge with which DHL intends to stimulate collaborative discussion throughout its networks and alliances, resulting in innovative projects that can be jointly undertaken.

Main related R&D activities and projects

Profile

Dr. Markus Kückelhaus

Company / Institute
- DHL Customer Solutions & Innovation

Position
- Director Research & Development

Website references
- www.dhl.com/solutions-innovation
Ms. Bhairavi Jani

Bhairavi is a fourth generation entrepreneur and a Director at SCA Group of Companies founded in 1896 by her great-grandfather. SCA Group of Companies undertake activities in port, shipping, customs clearance, warehousing, service contracting, freight forwarding, logistics infrastructure building and management, air cargo, supply chain consultancy and IT. Post her graduation in 1999, she worked with KPMG Consulting in Washington D.C. Bhairavi returned to India in 2001. She began her foray into business by setting up a fourth party logistics company in India called i3pl. The company is credited with building the first of its kind supply chain and promotional logistics solutions in India. In 2005 Bhairavi moved into the role of the Director for all the companies under the SCA Group. Bhairavi Chairs the National Volunteering Week campaign of India. She is the Past National Chairman of Young Indians, CII. Fellow, India Leadership Initiative of the Aspen Global Leadership Network. Founding Member, Council of Supply Chain Management Professionals USA, India Roundtable. Bhairavi has been listed as the 30 most Powerful Women in India by the India Today publication in 2010. Business Today Magazine featured her as the Supply Chain Maven.

India – The Next Practice in Smart Logistics

The current opportunities in India and why they are so unique for innovation of the new practices for smarter logistics whose application can be found in other emerging and developed economies. How reverse innovation is creating new models with global collaboration and local expertise. The presentation will look at the vast logistics sector, its current state its future opportunities and roles of every stakeholder in the chain.

Main related R&D activities and projects

What India needs and lacks is a focused approach towards eliminating its logistics roadblocks, one step at a time. But it will take investment in looking at how globally accepted best practices can be applied to Indian environment, how can Indian conditions allow for creation of home-grown solutions that can also have applicability in other emerging economies.

This requires a platform where industry, academia, government, and international organizations can collaborate and co-create next practices in Indian logistics.

Creating the practices is the first step but their application and adaptation by the various stakeholders can only happen through human capacity building. Most importantly Indian logistics sector is driven by SMEs and their role is imperative.

Therefore a center that can undertake Research and Development, Experimental Development, Human Capital Building and SME Knowledge Dissemination is the need of the hour in India. The SCA Group is setting up India’s first such center.
Prof. dr. Albert Veenstra

Albert Veenstra is professor of trade facilitation and logistics, and senior consultant at the research group sustainable transport and logistics at TNO. He is a member of the steering group synchromodality of the Topsector logistics.

**Synchromodality in the Netherlands**
The presentation will deal with the concept of synchromodality is, and how it functions as an ambition for the Dutch multimodal transport system.

**Main related R&D activities and projects**
Several dinalog projects are relevant for this topic: ULTIMATE, SIEEG
Dr Yuval Hadas earns his Ph.D. in Transportation Sciences from the Technion – Israel Institute of Technology. He is a faculty at the Department of Management since 2003 and focuses his research on public-transport, information systems, GIS, routing, and emergency logistics. Yuval has a vast experience in optimization, simulation, and data analysis (both spatial and non-spatial). He is currently the head of the logistics studies at Department. In the past, Yuval served as assistant to the Chief Scientist of the Ministry of Transport, Israel. Work in various ITS (Intelligent Transportation Systems) areas, Transit and Freight Intermodality, innovative ideas to reduce road accidents, various TDM (Transportation Demand Management) areas, parking solutions, rail transport, air transport, water-borne transport and strategic research. Yuval has an extensive experience in logistics consultancy for large Israeli companies in logistics and transportation.

**Multi-disciplinary insights into smart logistics research**
Logistics research is multi-disciplinary in nature and encompasses operations research and optimization, supply-chain management, economics, transportation, routing, GIS and IT, inventory management, human resources and psychology, machine learning and game theory, production and maintenance, discrete choice models, military and emergency logistics. As such, the aim of the presentation is to demonstrate this multi-disciplinarity with an overview of recent and ongoing research carried-out at the Department of Management, related to smart logistics with focus on synchronomodality and the Israeli perspective.

**Main related R&D activities and projects**
Mr. Jonghak Park

Over two decades of multiregional hands-on experiences, particularly in East-Asia and Europe, he has been implementing a cutting-edge solutions in logistics chains with advanced information technology. The incumbent managing director of Pantos Benelux B.V., Jonghak Park, has established five logistics centers in the Netherlands, and furthered collateral projects, especially for parts logistics sector. Under his coherent stewardship, Pantos Benelux burgeoned forth to become one of the topnotchers in the region.

Combined efforts of embracing new challenges and renovation are being persisted to achieve its organizational goal, vision 2020.

Profile

Mr. Jonghak Park

Company / Institute
- Pantos Logistics Benelux b.V.

Position
- Managing director
Jos van Hillegersberg is a professor of Business Information Systems at School of Management and Governance, University of Twente. He is currently running several projects on improving collaboration in business networks using innovative ICT such as agent technology, business analytics and Service Based business integration. He was one of the authors of the NWO Sustainable Logistics Program Outline. He is a member of the National Business Award for Logistics and program co-chair of the European Conference on Information Systems (ECIS) in 2013 and again in 2015. He serves on the advisory board of the European iCargo project. Before joining the UT, he was on the faculty of the Rotterdam School of Management, Erasmus university for 15 years, working on component based software systems, IT management, global outsourcing and agent systems for supply chains. He also worked for several years in business. At AEGON he was component manager for the setup of an Internet Bank. He worked at IBM on artificial intelligence and expert systems.

Smart ICT for Synchronodal Logistics
Achieving effective Synchronodal logistics requires substantial innovations in the use of ICT. This presentation will survey the opportunities that recent ICT developments bring and how these can applied to enable synchronomadity. We demonstrate the components of a Smart ICT platform using our current Research projects that are aimed at increasing agility and sustainability of supply chains. ICT we apply in these projects include Multi-agent coordination, Open Social Community Platforms, Open Semantic Standards, Business Analytics and Wireless Sensor Networks, Collaboration Technologies.

Main related R&D activities and projects
The Supply Chain and Logistics research of the department of Industrial Engineering and Business Information Systems in focused in the Centre for Sustainable Supply chain Innovation (SSI). The centre conducts internationally leading interdisciplinary research focused at the design and implementation of sustainable innovation of global supply chains.

Sustainable Supply chain innovation is achieved by enhancing and implementing breakthrough ICT, operations and coordination methods for planning and control, and organizational theories in complex multi-actor settings. Through enhancing and implementing novel concepts in ICT, Business Information Systems and Operations Management, the centre enables the transition to sustainable supply chains that meet the requirements of the future.

The centre conducts research projects following design science and action based research methods, with a strong foothold in Operations Research and Information Systems, while closely collaborating with industry, knowledge institutes and government agencies. Projects are conducted in both national and global networks, bringing together engineering, ICT, operations management and governance and business disciplines. We focus on projects that have substantial impact on innovating practice/society while at the same time contributing significantly to the international scientific knowledge base. Our innovative methods include algorithm design, large scale simulations, serious games, architecture modeling and distributed systems engineering.
Thorsten Huelsmann

Born 1974. Studied economic geography and communication sciences at the Universities of Bonn and Bologna. 2000 - 2003 Research Fellow at the Universities of Bonn and Bristol, 2003 - 2010 Project Manager dortmund-project, 2010 until today Chief Executive Officer of EffizienzCluster LogistikRuhr and Head of International Relations at Fraunhofer IML.

Innovations for the future of logistics
The aim of the EffizienzCluster LogistikRuhr is to facilitate tomorrow’s individuality – in terms of the individual supply of goods, mobility and production – using just 75 per cent of today’s resources (in ecological and economic terms). Service-oriented architectures, multi-agent systems or the “Internet of Things” are typical examples of the new forms of control and organization in the logistic systems being developed in the EffizienzCluster. The cluster is paving the way for new types of service, business, training and companies.

Main related R&D activities and projects
In the EffizienzCluster’s 30 joint projects R&D results are brought to innovations, products and patents which companies from the whole logistics value chain will be bringing onto the market, making logistics even more competitive overall.

Profile
Thorsten Huelsmann

Company / Institute
• EffizienzCluster LogistikRuhr

Position
• CEO

Website references
• www.effizienzcluster.de
• www.iml.fraunhofer.de
Prof.dr. Tom Van Woensel

Tom Van Woensel is Full Professor of Freight Transport and Logistics in the OPAC group (Operations, Planning, Accounting and Control) of the department of Industrial Engineering and Innovation Sciences at the Technische Universiteit Eindhoven in the Netherlands. He also heads the Smart Logistics Lab, a joint effort of around 15 people doing research in transport and logistics.

His research is mainly focused on Freight Transport and Logistics. He published around 50 papers in academic journals (including Management Science, Transportation Science, Production and Operations Management, Interfaces, Computers and Operations Research, Transportation Research Part B and D, European Journal of Operational Research, Journal of Mathematical Modeling and Analysis, and International Journal of Production Economics) and several chapters in international books. More information on all publications can also be found on Google Scholar (current h-index is 17). As the lead scientist from the TU/e, he was involved in securing grants coming from the EU, Dinalog, Transumo, NWO, and several companies.

Prof. Dr. Van Woensel is also a board member of the European Supply Chain Forum, a collaborative effort with about 30 large multinational companies. He is the account manager for Bausch and Lomb, Kuehne+Nagel and Access Business Group.

Main related R&D activities and projects
City and Urban Logistics, Distribution network design, Hinterland Supply Chains, Retail Operations.
Eiichi Taniguchi is Professor of Transport and Logistics in Department of Urban Management, Graduate School of Engineering, Kyoto University, Japan. His research centres on City Logistics and urban freight transport modelling focusing on stochastic and dynamic vehicle routing and scheduling with time windows, multi-agent simulation considering behaviour of stakeholders who are involved in urban freight transport. Recently his research covers the health and security issues including humanitarian logistics after catastrophic disasters, home health care problems in aging society. He has published more than 200 academic papers and 9 books. He was awarded the best paper award by Japan Society of Civil Engineers in 2000 as well as by Eastern Asia Society for Transportation Studies in 1999 and 2011. He has organised the First to Eighth International Conferences on City Logistics in various venues in the world as the president of Institute for City Logistics since 1999. He has been actively involved in collaborative research in international organisations including Organisation for Economic Co-operation and Development, World Conference on Transport Research Society, Transportation Research Board, and World Road Association.

Challenges for city logistics
We face difficult and complicated problems related to freight transport systems in urban areas in terms of efficiency, environmental friendliness, safety, security, and saving energy consumption. To cope with these issues innovative ideas of city logistics have been proposed and implemented in several cities in the world. This presentation addresses the concept of city logistics, planning methodology, modelling for evaluation of policy measures as well as public-private partnerships. Some good practices of city logistics are also given.

Main related R&D activities and projects
We have conducted researches on city logistics focusing on modelling behaviour of stakeholders, including shippers, freight carriers, residents, administrators, for evaluating policy measures. Main components of models are (a) vehicle routing and scheduling with time windows, (b) location routing problem, (c) multi-agent simulation, (c) urban traffic simulation. We have organised international conferences on city logistics every two years since 1999 and contains research networks with a number of universities and related organisations in Asia Pacific, Europe, America, and African regions. We have published a number of academic papers and books on sustainable urban freight transport systems. Recently there are increasing concerns about health and security issues. Therefore, we have performed research on humanitarian logistics for relief supplies after catastrophic disasters as well as home health care problems in aging society.
Matthijs Crietee MSc

Matthijs Crietee’s career is fully focused on the fashion industry. After completing a Masters degree in International Economics and Economic Geography at the University of Utrecht he started with the Dutch fashion industry association FENECON to support their members with trade policy affairs. At that time the trade in fashion was governed by quota still. After a brief stint at the Ministry of Economic Affairs Matthijs returned to fashion to work with the successor of FENECON, MODINT, as its deputy director. In the ten year period from 2000 to 2010 he build up an important part of MODINT’s consultancy department. From 2010 he helped propel the fashion industry into the creative industry and one of the ‘top sectors’ in the Netherlands. And, together with partner Greenway he build up MODINT Logistics, a very successful division of MODINT organizing buying power in logistics for its members, giving supply chain advise and supporting and disseminating innovation in fashion logistics. He is a core team member of Click, the TKI of the creative industry. Starting 2012, Matthijs was named deputy secretary general of the International Apparel Federation, the global Federation for the fashion industry which incidentally is headquartered in the Netherlands.

Getting SMEs involved in bundling transport flows
MODINT Logistics has developed a series of transport bundling initiatives to help its members save costs and improve both their supply chain performance and their environmental performance at the same time. Added together the SMEs make up an important share of the total enormous volume of apparel that is transported across the world into our city centres. Getting all of these separate SMEs to join bundling initiatives is hard. With the support of Dinalog and by combining the role of the industry association with the logistic knowledge of a specialised firm, using a unique model, MODINT is now getting to the SMEs and making a change.

Main related R&D activities and projects
• Bundling at the Source project (running)
• Harmonisation of delivery times at retail (submitted)
Dr. Lei Zhao is an associate professor and the director of the Operations Research and Statistics Institute in the Department of Industrial Engineering at Tsinghua University, China. He is also the co-director of the Operations & Services Research (TOpS) Laboratory. Dr. Zhao received his PhD in Systems and Industrial Engineering from the University of Arizona. He has published in *Annals of Operations Research*, *Computational Optimization and Applications*, *European Journal of Operational Research*, *Flexible Services Manufacturing Journal*, *IEEE Transactions on Intelligent Transportation Systems*, etc. He is a member of INFORMS, POMS, and IEEE.

Freight transportation in mega-cities in emerging economy

I will first provide a brief overview of logistics in China and then present some of our research projects related to freight transportation management in mega-cities in China, followed by a summary of challenges and potential research collaboration opportunities.

Main related R&D activities and projects

Dr. Zhao’s research focuses on (large-scale) stochastic optimization methodologies (approximate dynamic programming, stochastic programming, simulation optimization) and their applications in supply chain risk management, transportation and logistics management, city logistics, and healthcare. Dr. Zhao has collaborated with industry partners such as Sinotrans, COSCO, Sinopec, China Tobacco, as well as General Mills, General Motors, Mitsubishi Heavy Industries, and IBM Research China. He has also been funded by The National Natural Science Foundation of China (NSFC) on research projects on supply chain risk management, behavioral supply chain management, and logistics services and operations policies. Dr. Zhao has research collaborations with the OPAC group at Eindhoven University of Technology (TU/e) since 2008. Their recent research project on “Traditional retail channel logistics in megacities” (2013-2016) is jointed funded by NSFC & NWO.
Coordination of Last-Mile Delivery in Urban Cities – a review of current practices and future prospects.

In this talk, I will discuss the challenges of urban logistics, particularly in the context of last-mile delivery of freight into mega-cities like Singapore. I will present several case studies in Europe and Asia on the operation of Urban Consolidation Centers (UCCs) which enable collaboration among shippers, carriers, and retailers to consolidate deliveries. I will then discuss my research on market mechanisms that provide the necessary technology and incentives for multiple stakeholders to derive win-win benefits from operating within UCCs.

Main related R&D activities and projects

Operations Research and Artificial Intelligence. Design of efficient computational methods and tools that either automate or provide decision support for resource management (planning, scheduling, and coordination) in a variety of domains, ranging from logistics, transportation, e-Commerce, health-care and tourism.
Ben Gräve

Ben started his career in 1971 with Philips as a development engineer in telecommunication products. In 1974 he joined IBM as a manufacturing engineer and after a few years he moved into materials management functions for IBM in The Netherlands, USA and England. In 1989 he joined the services division and after a few years he became the EMEA service parts manager. In 1997 he was appointed as the worldwide director of the service parts business and he has held that position until 2006 when he retired from IBM. Since 1995 Ben was a member of the board of Service Logistics Forum (SLF). This forum has grown to be the knowledge base for service logistics in The Netherlands. In 2011 he was elected as the chairman of this institute. He is also member of the advisory board of the International Service Logistics Association (ISLA) based in Germany. Ben chairs the Advisory Committee Experimental Development of the Dutch Institute for Advanced Logistics (Dinalog).

SLF the place to meet for Service Logistics matters
The Service Logistics Forum (SLF), founded in 1993 has grown to be the knowledge base for service logistics in The Netherlands. Nowadays decision makers and scientists in service and logistics of approx. 50 companies, including 4 research universities and 1 university of applied sciences, meet to discuss service logistics trends and developments frequently. The forum aims at the development of service logistics know-how and skills of all participating companies and institutions.

Service Logistics is often narrowly described
Service Logistics is much more than spare parts management. It is the logistics of after-sales service covering all aspects from sales to the ‘end of life’ of a product. The challenge is to manage the cohesion between all these elements like call centers, (remote) diagnosis, service engineers, spare parts, tools, repair centers, reverse, recycling etc. Service Logistics is the control tower and determines the success of the after-sales service to a high extent.

SLF network
To realize the SLF objectives a broad spectrum of activities are organised: (a) Practical workshops for SLF participants in which science and business are meeting for interesting discussions about innovation trends (b) A yearly service logistics summit with many company case studies and scientific cases. (c) Round-table meetings about explicit subjects on request of SLF participants.

Profile

Ben Gräve

Company / Institute
• Stichting Service Logistics Forum (SLF)

Position
• Chairman SLF

Website references
• www.servicelogisticsforum.nl
João Guilherme Araújo MBA

B.S. degree in Chemical Engineering (Universidade Federal do Rio de Janeiro), followed by an specialization in Marketing (M.B.A., IBMEC/SP) and an Executive M.B.A. (BSP – Business School SP) including an exchange program at Rotman School of Management (University of Toronto Business School);

Business Development, Operations and Supply Chain executive with more than 15 years of diverse experience in different industries such as: Retail, LSP, FMCG, Energy and Consulting;

As executive has strong track records and experiences in companies like Whirlpool and Ceva Logistics. Also Brazilian top players like GPA—Grupo Pao de Acucar, ALL—America Latina Logistica and Grupo Ultra;

As a Consultant, led supply chain projects in the Food & beverage, FMCG, Chemical and Petrochemical, Oil & Gas, Telecom sectors, among others.

Executive Board Member of GTR S.A. and Planmera (2 Brazilian start up companies)
Talent Solution senior advisor for executive search projects.

Service & Reverse Logistics from a Brazilian Perspective

Brief ILOS presentation, an overview about Brazilian logistics challenges and current situation, service logistics and reverse logistics Brazilian initiatives and a final framework of possible collaboration projects.

Main related R&D activities and projects

- Brazilian Green Logistics Research and Survey;
- Brazilian Reverse Logistics Research and Survey;
- ABILUMI – Imported Lamp Industrial Association Reverse Logistics Project;
- Brazilian Secondary Market Mapping and Survey. Comparison with USA current situation.
- Ethos Work Group Member for Reverse Logistics Business Practises & Policies in Brazil;
- Some magazine articles regarding green and reverse logistics.

Profile

João Guilherme Araújo MBA

Company / Institute

- ILOS – Instituto de Logística e Supply Chain

Position

- ILOS Consulting and Business Development Director

Website references

- www.ilos.com.br
James S. Noble is a professor in the Industrial and Manufacturing Systems Engineering Department at the University of Missouri and MU Site Director for the NSF I/UCRC Center for Excellence in Logistics and Distribution. He received his BSIE from the University of Oklahoma, then his MSIE and Ph.D. from Purdue University. He received the Society of Manufacturing Engineers Outstanding Young Manufacturing Engineering award in 1997. He was a visiting scholar at the Centre for Strategy and Performance, Institute for Manufacturing, University of Cambridge, UK in 2002. Noble is currently working on research related to logistics, supply chain and integrated production systems. He has published over 100 technical articles and his research has been funded by the National Science Foundation, AmerenUE, Bayer CropScience, Boeing, Hallmark Cards, Leggett & Platt, Nordyne, 3M, Square D, Midwest Transportation Consortium and Missouri Department of Transportation. He is a registered professional engineer in the state of Missouri.

Research in a U.S. Industry/University/Government Partnership – A Reverse Logistics Network Design Example

A partnership between industry, academia and government can provide the synergy necessary to make significant contributions to the field of logistics. CELDi (Center for Excellence in Logistics and Distribution – an NSF I/UCRC) is such a partnership. This presentation will provide an overview of how this partnership is structured, include an overview of projects that are conducted at the different levels of collaboration, and will present an in-depth case study for one project that has addressed Reverse Logistics Network Design.

Main related R&D activities and projects

During the 11 years that CELDi has existed over 240 industry/university projects between 14 universities and over 80 industry members have been completed in four different focus areas: Logistic System Design, Supply Chain Modelling, Material Flow Design, and Intelligent Systems. In addition there have been multiple Center Designated Projects at the broader consortium level (Development of Logistics Efficiency Metrics, Congestion-Based Design of Supply Chain Networks, Integrated Freight Consolidation & Shipping Models in International Supply Networks, Decision Support for Warehouse Design, An Intermittent Demand Forecasting Tool, Data-Driven Adaptive Forecasting and Inventory Control) as well as Fundamental Research Projects funded directly by the National Science Foundation (i.e. Managing Disruptions in Pharmaceutical Supply Chain Networks, Logistics of Biomass Based Energy, The Physical Internet).
Baptiste Janique is Marketing and Sales Director at Fluid-e, he is committed to offer to his customers (Large retailers, manufacturers ...) with complex supply chain networks and changing business environments to rely on Fluid-e for continuous performance monitoring, and coordinated response to plan variances across multiple areas of the business.

Previously, He was EMEA Sales Director at Netvibes, a Competitive Intelligence fast growing company, sold to Dassault Systems in February 2012. Netvibes offers a comprehensive dashboard intelligence solution to monitor, listen and act from all web based content and application sources.

He was Global Alliance Manager at Microsoft Corporation, developing Sales, Marketing and Technical activities with strategic partners totalling $ B 20+ in revenue, headquartered in China, HK, North America and Europe ; doing business in Retail, CPG, Financial Services and Manufacturing.

Prior, He held numerous business development roles at Microsoft France and Capgemini in charge of Global & Corporate Accounts, Small & Medium customers and Emerging businesses.

Supply Chain Collaboration between Retailers, Suppliers and Logistics providers : is it a reality ?
Fluid-e delivers a cloud-based solution to enable Retailers, and Manufacturers for collaborative planning, continuous performance monitoring, and supply chain related business processes.

Fluid-e is in a key position to challenge " AS IS " operations and launch innovative projects with retailers, suppliers and logistics providers.

Fluid-e will share couple of return of experiences, learning’s and how the future might look like.

Main related R&D activities and projects
Fluid-e R&D activities are focused in improving the user experience and scalability of multi-tenants Supply Chain Collaboration platforms, aka Supply Chain Control Tower. Fluid-e develops next generation of services to foster collaboration, reduce costs, improve on shelf availability to provide to our clients the ability to meet consumers changing needs.

Profile

Mr. Baptiste Janique

Company / Institute
• Fluid-e

Position
• Marketing & Sales Director

Website references
• www.fluid-e.com
Ir. Michiel A. Kuipers MBA/Msc

Michiel A Kuipers is a senior manager at IBM. Since August this year he is holding the position of WW Leader Business Analytics for IBM’s Integrated Supply Chain. His former role was WW Business Transformation and IT Leader for IBM’s Global Logistics and Service Parts Operation.

He build his career inside of IBM, where he took in the last 18 years numerous of roles in IBM’s supply chain and after sales services function. Amongst others he was responsible for large system implementations, consolidation of IT systems, process optimization, outsourcing projects and had several operational management roles.

Michiel holds an ‘ir’ and Msc degree in Mechanical Engineering from the Technical University in Delft and a MBA degree from the Henley Management College (UK).

IBM

IBM has been well known through most of its recent history as one of the world’s largest computer companies and systems integrators. With over 433,362 (2012) employees worldwide, IBM is one of the largest and most profitable information technology employers in the world. IBM holds more patents than any other U.S. based technology company. The company has scientists, engineers, consultants, and sales professionals in over 170 countries. IBM employees have earned five Nobel Prizes, four Turing Awards, five National Medals of Technology, and five National Medals of Science.

Interbrand has named IBM nr 1 B2B brand in the world, and is nr 4 Brand in the world. (www.interbrand.com)

IBM’s R&D operations differentiate the company from its competitors. IBM annually invests over $6 billion for R&D, focusing on highgrowth, high-value opportunities. IBM Research works with clients and the company’s business units through 12 global labs on near-term and mid-term innovations. It contributes many new technologies to IBM’s portfolio every year and helps clients address their most difficult challenges. IBM Research also explores the boundaries of science and technology—from nanotechnology, to future systems, to big data analytics, to secure clouds, to IBM Watson.

Big Data and Analytics: What could be the value for Service Logistics?

By explaining the concept of Big Data, I will highlight what the key challenges are to turn the predicted explosion of the amount of data into valuable information. I will show an example of how we in IBM are addressing some of these challenges and what the value could be for Service Logistics.

Main related R&D activities and projects

• Proactive Service Logistics (ProSeLo project)
• Understanding of the human language by computers (Cognitive computing)
Drs. B. van Bolhuis

Since September 2013 Bart is Director for International Affairs at the Ministry of Infrastructure and the Environment. From 2009 to 2013 Bart, being based in San Francisco and Los Angeles, was Consul General for Netherlands in the western part of the United States, focusing on mutual investments in innovation, water management, energy, food, nutrition, life science, health and creative industries. From 2003 to 2009 Bart was Director for Foreign Trade and Investment at the Ministry of Economic Affairs and Secretary of the Dutch Trade Board, being at the forefront of private-public cooperation designed to increase Dutch competitiveness in globalizing markets. Bart has been involved in the creation of the European Market and the Economic and Monetary Union, in assisting new member states in Eastern Europe to adapt to EU requirements, in positioning Dutch business in these developing markets and in leading the successful introduction of the Euro currency in the Netherlands.

Throughout his career in the eighties and nineties Bart held several functions at the Netherlands Ministries of Foreign Affairs, Economic Affairs and Finance.

Mr Bart van Bolhuis holds a Master’s Degree in International Law from the University of Amsterdam.
Paul Kruis has studied Applied Physics at the University of Technology in Delft. After a period of seven years in the IT sector, he started working at Agentschap NL, the Dutch executive agency of the ministry of Economic Affairs. Agentschap NL tries to stimulate innovation, sustainability and international trade.

His function is National Contact Point for Security research in the Seventh Framework Programme and Horizon 2020. He helps participants to step into the exciting world of international research. He organizes events, trainings and presentations for (future) participants. In addition he supports policy makers in European affairs.

**Horizon 2020, international opportunities for smart logistics**

Horizon 2020 is the new instrument of the European Commission to stimulate research, development and innovation in the European Union. Seven societal challenges have been defined to address pressing societal issues. Smart, green and integrated transport is one of those challenges in which the European research community is invited to come up with clever solutions.

**Main related R&D activities and projects**

Logistics focuses on the planning, organisation, management, control and execution of freight transport operations. The aim of research and innovation in the area of logistics is to increase efficiency and hence sustainability in the logistics supply chain, removing the communication bottlenecks in the interaction between the different stakeholders and thereby improve the potential for collaboration, the effective utilisation of equipment and seamless connectivity across the transport modes.

**Profile**

Ir Paul. E.W. Kruis

Company / Institute
- NL Agency

Position
- Advisor Horizon 2020

Website references
- http://www.agentschapnl.nl/horizon2020
- http://www.co3-project.eu/
- http://www.cassandra-project.eu/
- http://www.integrity-supplychain.eu/
NOST Network

• The Netherlands, Central Office
• EU- Brussels
• France
• Germany
• Turkey
• Israël
• Russia
• China
• India
• Japan
• Taiwan
• Singapore
• Brazil
• United States of America
Overview Netherlands Office for Science and Technology
The Netherlands, Central office

The central office of the NOST Network (Innovatie Attaché Netwerk in Dutch) is part of NL EVD International, the division of NL Agency for international business and cooperation. NL Agency is an agency of the Ministry of Economic Affairs.

The central office is responsible for the strategy of the NOST network, coordinating and organizing the activities of the NOST offices abroad (e.g. scientific/technological/policy priorities, communications, R&D work visits). In doing so, the central office is the central interface of the NOST network with industry, academia and government. Furthermore the central office is the linking pin within NL Agency on internationalization of R&D by means of the officers abroad, working closely with colleagues from all other divisions.

The central office publishes IA Special, organizes innovation seminars and conferences with partners of the Dutch knowledge infrastructure, and hosts an online presence aimed at the Dutch R&D and innovation communities: the website www.ianetwerk.nl. The team is staffed by Bart Sattler, Hans Bosch, Roy Paulissen, Lies Timorason, Wiwik Khohonggiem, Ankie Overduin and for this seminar is supported by Bea Mahadew.

Profile

Bart Sattler
Hans Bosch
Lies Timorason

Contact

• NL Agency / NL EVD International
  NOST Central Office
  P.O. Box 93144
  2509 Den Haag
  The Netherlands

For visitors: Prinses Beatrixlaan 2, The Hague

• Telephone: +31 88 602 1504
• Email: XX@agentschapnl.nl
The post in Brussels (NOST EU) is a peculiar one within the Network of Netherlands Officers for Science and Technology. For NOST EU-Brussel does not focus on the state of play of science and technology in its host country Belgium, but monitors developments in these areas within the European Union (EU). IA EU keeps its stakeholders informed on new EU policies and on possibilities for the Netherlands and other Dutch parties to participate in European support programmes in the field of research and innovation.

There is not ‘one’ European research and innovation policy, since most of the policy area is still nationally organised. European policy in the area of R&D consists mostly of programmes for cooperation between countries. The process is known as ‘Europe 2020’. The focus of this strategy is on a smart, sustainable and inclusive economy.

To support reaching the goals of this Strategy, the EU has a number of innovation and support programmes available for the period 2007-2013. The most important one is: The seventh Framework Programme for Research and Development (FP7): By far the most important European instrument in this field with a budget of around € 54 billion. Worldwide it is the largest cooperation programme for R&D on a wide range of themes. Important elements of the FP7 are the European Technology Platforms and the Joint Technology Initiatives (Private-Public Partnerships).

Currently, the EU is reviewing its programmes for the period 2014-2020. A new framework programme called Horizon 2020 is developed. Synergies between the existing EU programmes, societal challenges, the balance between fundamental research and innovation, revised rules for participation are all part of this review.

NOST EU can inform you on the content of the current and other European programmes and give you an insight on European policy in the field of science and innovation. The office is staffed by Dave Pieters.

Profile

Davy Pieters

Contact

• First Embassy Secretary
Research and Atomic Questions Division
Permanent Representation of the Netherlands to the EU Kortenberglaan 4-10
1040 Brussels
Belgium

• Telephone: +32 (0)2- 679 1665
• Fax: +32-2-6791777
• Email: brussel@ianetwerk.nl
France

With its strong scientific and industrial tradition France is a world player in sectors like aerospace, ICT, nanotechnology, biotechnology, transport and food and nutrition. France is Europe’s second most important economy and has a well developed industry in several regions: Paris region, Rhône-Alpes and Aquitaine region (Toulouse-Bordeaux).

Strong and innovative technological sectors in France are:

- Energy (EDF, GDF-Suez, Areva, Total) and water treatment (Veolia)
- Automotive (Renault, PSA Citroën and suppliers like Valeo)
- Aviation and aerospace (Airbus, Onera, Thales, Astrium and Dassault)
- Nano-electronics and ICT (STMicroelectronics, France Telecom, Soitec and Alcatel-Lucent)
- Food and nutrition (Roquette, Bonduelle, Danone, Bel and Pernod Ricard)
- Life sciences industry (Sanofi Aventis, Pierre Fabre, BioMerieux, L’Oréal)
- Chemical industry (Arkema, Air Liquide, Solvay-Rhodia, SNF Floerger)
- Design and fashion (LVMH, Hermès, Chanel, Christian Lacroix)

The Innovation Attaché Office in Paris offers its customers tailor made assistance in:

- Finding the right contacts in the French public and private research sector
- Finding their way within the 71 French competitiveness clusters (Pôles de Compétitivité)
- Contacting the French government and national agencies in charge of innovation and sciences
- Promoting Holland High Tech & Creative Industries in France

The Innovation Attaché Office in Paris reports about French innovation policy and technological developments in the domains listed above. For all publications see nost-france.org/ (in Dutch) or http://nostfrancefrancais.wordpress.com (in French).

Profile

Eric van Kooij

Contact

- Ambassade des Pays-Bas
  Service pour la Science et la Technologie
  7, Rue Eblé
  F-75007 Paris
  France

- Telephone: + 33 1 40 62 33 33
- Fax : + 33 1 40 62 34 56
- Email : parijs@ianetwerk.nl
Germany

The German government has made innovation a top-priority. It invests more money than ever before in R&D. The idea behind this strategy is that economic advantages can only be achieved by knowledge intensive and innovative products. With the High Tech Strategy, an umbrella strategy for national investments in research and development, Germany is getting close to the Lissabon-goal of 3% GDP investment in R&D. In fact several states ("Bundesländer") in the south already achieved that level and are aiming for more. Nearly 15 billion euro was made available for R&D in this cabinet’s term in office. The top-sectors that are important in The Netherlands are also well established in Germany.

More than 230 research institutes, 380 colleges & universities and many research labs of companies are active in the area of R&D, both independently as well as in geographical and virtual clusters. In addition, each of the individual German states supports and stimulates the development of high-tech regions and clusters in their own state. The R&D-clusters in Germany are well-developed and are looking for international cooperation.

NOST Germany is perfectly fit to guide you through the innovation-landscape of Germany, and we are happy to help you finding your way and bring you in contact with the right key-players.

Profile

Eelco van der Eijk
Joop Glij詹姆se

Contact

• Botschaft des Königreichs der Niederlande
  Büro für Wissenschaft und Technologie
  Klosterstrasse 50
  D-10179 Berlin
  Deutschland

• Telephone: + 49 30 20956219
• Fax: + 49 30 20956471
• Email: berlijn@twanetwerk.nl
Turkey

Turkey possesses a significant industrial base and is specialized in the medium and low tech industry (automotive, consumer goods, chemical sector, textile, food etcetera). After having followed a closed and import based strategy since the 1950s, under the leadership of president Öcal Turkey transformed into an open economy with a much stronger focus on Foreign Direct Investments (FDI). Liberalization efforts focused on promoting export, liberalization of import, deregulation of the financial sector and promoting foreign investments. Since 2000, foreign investments are on the rise. These measures have caused a continues economic growth with a yearly average of 5.3% between 2003 and 2011. For this year a growth is expected of 3.5 to 4 % and it is expected the Turkish economy will surpass the Dutch in 2014. In 2030 it is expected that the Turkish economy will be the 5th largest in Europe. The Turkish economy also transforms itself from an industrial based economy to a more diversified economy with an increasing and more international services sector. Added to that, Turkey possesses a young and well-educated labor force. These form the basis for investments in sustainable economic growth, which currently is being implemented through the promotion and focus on Research & Development as well as innovation as the cornerstones of future economic growth. One of the driving factors behind the push for more innovation is the wish of the Turkish government to substitute current imports with locally produced goods in order to lessen the account deficit. That Turkey takes this serious can be deducted from their various ambitious plans, such as the development of a locally produced electronic vehicle, the wish to produce its own passenger jet and the push to develop a Turkish surface-to-air missile defense system (SAM). These are just some examples that indicate the ambition displayed by the Turkish government that wants to increase R&D spending to 3% of GDP by 2023, from the current figure of 0.87% of GDP. The Turkish focus sectors are: automotive, machinery, ICT, defense, space, energy, water, food and health care. Sinds 2004, Turkey has been fully involved in the Framework Programs of the European Union (FP6, FP7 and also Horizon 2020).

IA Network Ankara
The IA Network in Turkey focuses on mapping Turkish policies regarding R&D and innovation, identifying the main actors in these fields as well as the sectors Turkey will put its efforts on. This will be compared to the Dutch top sector policy, which will then give a clear picture of the cooperation opportunities for Dutch universities, knowledge institutions as well as companies in the field of R&D and innovation. Next to that, the Innovation Advisor will follow and report on relevant trends and developments in the Turkish science, technology, innovation and industrial policies. The Innovation Advisor proactively works together with the Economic Department and the Agricultural Counselor of the Netherlands of the Embassy in Ankara, the Netherlands Consulate-general in Istanbul and The Netherlands Business Support Office (NBSO) in Izmir.

Profile

Rory Nuijens

Contact
- Embassy of the Kingdom of the Netherlands Turan Güneş Bulvarı | Hollanda Caddesi No. 5 | 06550 Yildiz Ankara | Turkije
- Telephone: +90 312 409 1819
- Direct: +90 530 844 2810
- Fax : +90 312 409 1896
- Email: rory.nuijens@minbuza.nl ankara@ianetwerk.nl
Israel is known for its innovation ecosystem. For example, in November 2012 Tel Aviv was listed second, after Silicon Valley, in the top 20 of global start-up ecosystems. The unique history of the country has been driving innovation. Natural resources, like water and fertile land, were scarce and technologies were developed to overcome these problems. Now 75% of Israel’s water is recycled. Other important factors for driving innovation in its history is the immigration of highly educated people and the security situation in the region. The government tries to leverage its unique innovation position by overcoming obstacles. A success story is the Yozma program that has brought the missing ingredient of the start-up system: financing. Now Israel has the largest venture capital industry per capita than any other country in the world.

Examples of Israel’s innovation power:
• Israel has a unique position regarding R&D investments. In 2009 4.28% of its GDP was spent on R&D: the highest percentage of the OECD countries (twice the average).
• Microsoft, Motorola, Philips, Intel, Google and many other multinationals have R&D centres in Israel.
• Israel has the most companies listed on NASDAQ after the USA and China.
• It has the highest number of scientist in the world per capita.

The NOST office in Tel Aviv focuses on the following fields: agrifood, water, energy, life-science and hightech. Israel actively takes part in the EU research programs, such as FP7 and Eureka.
The Russian government faces the challenge of diversifying the country’s economic structure and reducing its reliance on oil and gas for well over a decade. But it focuses increasingly on innovation as the key to Russia’s successful development over the longer term.

One of Russia’s still preserved competitive advantages is its human potential. Besides that, Russia has a strong technical-scientific tradition, specifically in areas such as physics, chemistry and mathematics, and in sectors such as the defence industry, aerospace and nuclear power. Russia is in the top 10 countries for overall R&D expenditures but it mostly consists of public financing. Overall business expenditures for R&D and innovations (about 1% of GDP) are rather low.

The Russian government is strongly investing into both soft and hard infrastructure, reorganizing the higher education system (strengthening the link between universities, research and business), establishing so-called “Institutes of development of Russian innovative economy” (funding), creating techno-parks and business incubators, and special economic zones for technology development with special tax and customs regime. Current S&T priorities include: energy efficiency; nuclear technology; information technology; medical technology and pharmaceuticals; space technology. The expenditures on R&D for security and defence are traditionally high.

Russia has recently been added to the country list of S&T offices. Joyce Ten Holter is currently setting up the office at the Netherlands Embassy in Moscow.

Profile

Joyce Ten Holter

Contact

• Embassy of the Kingdom of the Netherlands
  Netherlands Office for Science and Technology
  Kalashny pereulok 6 | 115127 | Moscow | Russia
• Telephone: +7 495 797 29 69
• Fax: +7 495 797 29 07
• Email: moskou@ianetwerk.nl
China overtook the United States in 2011 to become the world’s largest producer of manufactured goods. It managed to improve living standards by doubling the country’s GDP per capita over the last decade. In 2003 China became the third country to independently send humans into space, at that time its R&D expenditure was still relatively low at 1.13% of GDP. Since then China has been able to increase that figure to 1.97%, resulting in an investment of 125 billion euros on R&D in 2012. While many Chinese universities are publishing papers in internationally renowned journals, the fact that no Chinese university ranks in the top-150 of the 2013 Academic Ranking of World Universities, shows that there is room for improvement. Having said that, the Chinese did make a huge improvement over the last years when it comes to publications in for example Nature. They were ranking 12th in 2008 with 89 articles and jumped to the 6th place in 2012 with a total of 303 articles.

Since the introduction of the National Intellectual Property Strategy in 2005 the amount of patent applications in China has exploded. Last year the Chinese State Intellectual Property Office received more than 650,000 filings, up 24% compared to 2011. Also internationally the Chinese are filing more and more patents. The Chinese company ZTE filed the most WIPO PCT patent applications in 2011 and 2012, a position that was held for the first time by the Chinese company Huawei in 2008.

The last few years the Chinese innovation policy experienced a radical transition by changing its focus from importing knowledge and technologies from abroad to increasingly investing in ‘homegrown’ research and development.

The Netherlands Office of Science and Technology (NOST) started its activities in China in 2005 at the Netherlands Embassy in Beijing and expanded its network by setting up offices at the Consulates General in Shanghai and Guangzhou. With these three offices the NOST China network covers the three main economic clusters that currently set the pace of China’s activities in the field of science and technology. NOST China is pro-actively on the lookout for new developments and opportunities in science and technology. These developments can be research, business, and policy related. When promoting the Netherlands in China, NOST focuses on the Dutch ‘Top Sectors’ and core technology clusters where the Netherlands has a leading international position. We aim at bringing together public and private players to make a joint effort in cooperating with China.

The team comprises Jan Reint Smit, Jaap van Etten, Dirk Jan Boudeling, Han Wesseling, Jingmin Kan, Maurits van Dijk, Ma Qing and finally David Pho (Science Attaché) and Eva Xie (Science Officer).
India

India is one of the fastest growing economies in the world. The strength of India’s economy is based on a well developed service industry, which accounts for more than 50% of GDP. The country is driven by a large English speaking and well trained workforce and highly competitive labor costs. It also has a diverse industrial base and an extensive agriculture sector, employing more than 60% of the population.

The IT, financial, telecom, pharmaceutical, medical & health care sectors belong to the strongest service industries with an annual growth well over 20%. Although India has a longstanding scientific tradition, mainly of public nature, it is still struggling to get a recognized foothold at international academic levels. The minister of Human Resources announced a large-scale reconstruction of the universities, aiming for improvement of quality and output and benchmarking international rankings.

With the rapid internationalization of Indian industry the demand for applied science and technology, high-level R&D and innovation is huge. Leading Indian companies often source knowledge, technologies, and innovative power through international mergers and acquisitions and technology licensing deals. Investments and expenditures on S&T and R&D are on the rise, and for the 11th Plan period the aim is to increase to 1.6% of GNP. The current thrust of S&T is focusing on ‘innovation’, in research and industrial R&D.

Promising S&T areas are: medical services and health care, IT & ICT, automotive industry, renewable energy, food & nutrition, electronics, de bio-tech, agriculture en de pharmaceutics. India has signed an MoU on S&T with the Netherlands in 2008 and a Program of Cooperation in 2009. The selected priorities for the coming years are water technologies & water management, agro food & nutrition, new & renewable energy and life sciences & health.

The Netherlands Office for Science and Technology in New Delhi and Mumbai support clients from the Netherlands with insight in the developments in India. The offices also focus on bringing together Dutch and Indian partners for collaboration in science & technology and innovation. Jelle Nijdam and Vikas Kohli staff the office in New Delhi. The office in Mumbai is staffed by Freek Jan Frerichs.

Profile

Jelle Nijdam
Freek Jan Frerichs

Contact
• Embassy of the Kingdom of the Netherlands
Netherlands Office for Science and Technology
6/50-F Shantipath, Chanakyapuri
New Delhi-110 021
Republic of India
• Telephone: +91 11 24 197 629
• Fax: +91 11 24 197 615
• Email: delhi@ianetwerk.nl

• NOST Mumbai
Netherlands Office for Science and Technology
Consulate General of the Kingdom of The Netherlands
Forbes Building, 1st fl.,
Charanjit Rai Marg, Fort
Mumbai - 400 001.
• Telephone: +91 22 221 942 10
• Email: mumbai@ianetwerk.nl
Strong investments in technological and scientific developments have long been a distinctive characteristic for the Japanese society. In 2011, the R&D expenditure relative to GDP was 3.67% and was in total 147.7 billion euro out of which 81% was private R&D-investment. More than ever, Japanese public and private organizations actively pursue and invest in international S&T collaborations. Innovation-, science and technology initiatives are focused on meeting future social needs on a relatively short term. Crucial to the economical growth and well-being of the rapidly ageing and shrinking Japanese society are multidisciplinary developments in many fields, including life-sciences, health-care, IT, robotics and sustainability. In order to address these issues, a growth strategy was announced in 2010. Based on this strategy, the 4th S&T Basic Plan (2011-2015) was formulated around prioritized fields of “Green Innovation” and “Life Innovation”. Due to the great disaster of March 2011, this five year plan now describes recovery as the new top priority field, whereas the other fields remain intact. Apart from investments in recovery and reconstruction, most investments are directed towards energy-efficiency and other energy saving/environmental technologies in various fields of the automotive-, ICT-, material-, and food/pharmaceutical industries. These developments are an enormous potential for the Netherlands, from which numerous Dutch organizations are already benefiting. NOST Tokyo stimulates and supports further collaborations between Dutch organizations and their Japanese counterparts.

**NOST Tokyo**

Since the early 1960s developments in Japan have been monitored by the Netherlands Office for Science and Technology in Tokyo. Paul op den Brouw, Robn Stroeks, Kikuo Hayakawa, Kugako Sugimoto and Mihoko Ishii are the NOST-Tokyo-team and focus on the scientific and technological innovations in Japan.

---

**Profile**

**Paul op den Brouw**

**Contact**

- Embassy of the Kingdom of the Netherlands Office for Science and Technology
  3-6-3 Shibakoen
  Minato-ku, Tokio 105-0011
- Telephone: +81 3 5776 5510
- Fax: +81 3 5776 5534
- Email: tokio@ianetwerk.nl
Taiwan

Taiwan is together with South Korea, Singapore and Hong Kong one of the four Tigers of Asia. Taiwan currently holds the 13th place in the Global Competitiveness Index 2012 (The Netherlands are 5th) and over the past years it has gone through a significant economic growth driven by innovation and technology with an average R&D spending of 2 – 3 % of the GDP. The current trend is to move away from the traditional manufacturing industry, which is driven by cost leadership and strong competition, and to move towards a more knowledge intensive economy where technology leadership becomes a prevailing factor.

The Taiwanese government has a strong focus on innovation and industry policy to strengthen its economic sectors. This is effectuated through financing programs, incubator centers and science parks and a strong push towards international collaboration in the area of R&D and science and technology and also trade and investment. This provides a wide variety of opportunities for collaboration with Taiwanese companies and research institutes. Taiwan and the Netherlands signed a MOU in 2011 to enhance the science and technology relationships between the two and to provide a good framework for active R&D collaboration. The MOU focusses on 3 important sectors, the high tech and materials sector, the energy sector and the life sciences and health sector. The MOU acts as an important instrument and framework for the Taiwanese government to stimulate S&T collaborations with the Netherlands, through funding programs and matchmaking missions.

Taiwan’s most dominant sector with a large variety of opportunities is by far the High-Tech sector, with a world leading semi-conductor industry. Taiwan houses the two largest contract foundries in the world, TSMC and UMC and is the second largest PV module producer in the world and is home to the largest ODM in the world, Foxconn. Strong high-tech sectors in Taiwan are the, Semi-con industry, fabless IC’s, displays, PV modules, electronic vehicle components, computer hardware, electronics, LED lighting, and electronic components. Other sectors that are of significance in Taiwan are the Life Sciences and Health sector, which is currently seen as a growth sector with opportunities in bio-tech and healthcare, the textile sector, which is trying to move towards more advanced uses of textiles in the protective and technical domain and the energy sector, where Taiwan seeks for more green energy sources and specifically (offshore) wind energy.

The NOST-office in Taipei is a new addition to the NOST Network and it opened in the summer of 2012 to ensure a permanent presence in Taiwan and is staffed by Kasper Nossent. Before the installation of a permanent IA, Taiwan was covered by the NOST-post in Tokyo, but from July 2012 all NOST activities for Taiwan are now covered by the NOST post in Taipei. The NOST post has as focal points the context, content and execution of the MOU, active technology matchmaking and partner searches, monitoring of trends in policy and science and technology and active scouting for opportunities in the area of science and technology with a strong focus on the High-Tech sector, the Life Science and Health Sector and the Energy sector.

Profile

Kasper Nossent

Contact
- Netherlands Trade & Investment Office
  Netherlands Office for Science & Technology
  5F, No. 133, Min Sheng East Road
  Section 3, Taipei-105
  Taiwan
- Telephone: +886 (0) 978122819
- Email: taiwan@ianetwerk.nl
Innovation and Research & Development (R&D) are seen as the most important drivers for future economic growth in Singapore. Enhancing the knowledge based, innovation driven economy will help maintain and strengthen Singapore’s competitiveness and its role as ‘global hub and distinctive global city’.

The Singapore government has committed to invest over 10 billion euro to support research, innovation and enterprise during the period 2011-2015. The current plan focuses on strategic areas of research to strengthen core R&D capabilities. The Netherlands embassy sees specific opportunities for Dutch knowledge and expertise in the key sectors of Water, High Tech, Life Sciences & Health and Food & Nutrition.

Regarding the water sector, Singapore and the Netherlands already have strong mutual relations between the governments, private sectors and knowledge institutions. Singapore has the ambition to become a centre of excellence within the next 15 years in the area of maritime R&D. The aim is to transpose innovative ideas and sustainable concepts into marketable products that are suitable for the water industry. Opportunities can be found in drinking water technology, green shipping, flood control and floating buildings.

Singapore’s high tech sector is well developed and has become an integral part of the knowledge based economy. Leading research institutes and established universities are working closely with the high tech industry. The current focus is set on research to support urban challenges, which are associated with high-density cities and ageing population. The opportunities lie in development and test bedding of high tech solutions in complex systems such as smart cities, mobility and energy efficiency.

Singapore has also established itself as a biomedical hub. In the past years, many international pharmaceutical companies opened a research lab and manufacturing facility in Singapore. The government is actively supporting translational and clinical research programs and has reserved a budget of 80 million euro for research in the field of cancer, metabolic disorders, infectious diseases and neuroscience. There are specific opportunities for medical technologies that help the ageing population to live healthy and independently. The Food & Nutrition industry in Singapore is developing rapidly, building on the strong logistics sector and strong image of Singapore as a clean city. Recently, several research initiatives have been launched to support the growing business community. Dutch multinational companies have already established production and research facilities, and Wageningen University and Research Centre has strong collaborations with the Nanyang Technological University. There are opportunities for Dutch companies, also small and medium enterprises, to make use of Singapore as a window into Asia, such as in the area of healthy ageing and food security.

The science and technology advisors in Singapore, Susanne van Loon (left) and Susan van Boxtel (right), proactively report on new developments in Singapore, provide matchmaking to the local R&D ecosystem and scout for opportunities in research partnerships in these promising key sectors.
The political climate in Brazil is stable, the economy is growing—however at a slower pace—and investments in research and higher education is also growing. Although Brazil is still lacking behind compared to Europe, US and Asia, it is picking up fast. Quantity and quality of scientific research is improving and Brazilian universities are climbing on international rankings. The Ministry of Science, Technology and Innovation (MCTI) is responsible for scientific and innovation policies and research and development in prioritized areas. Two others important organizations in the Brazilian science- and technology sector are CNPq (National Council for Scientific and Technological Development) and FINEP (Institution for Studies and Project Funding). Both are linked to MCTI. CNPq can be compared with Dutch NWO and FINEP with AgentschapNL. CNPq runs the so called Science without Borders program. In this program more than 100,000 Brazilian students get the opportunity to study abroad and follow an internship. Almost a thousand students have chosen Dutch Universities as their destination. (www.swbholland.org)

In November 2011 MoU on Science & Technology Collaboration was signed between Brazil and the Netherlands. Signatories were MCTI and Dutch Ministry of Economic Affairs, Education, Culture and Science. This MoU offers many opportunities for collaboration in research, development and innovation. Prioritized areas, most top sectors of the Dutch economic policy, are agri- and horticulture, food & nutrition, (bio-based) chemistry, energy (fossil and renewable) and water. Also for Dutch knowledge-intensive industrial products and services opportunities are manifold, such as for maritime technology, aerospace, food processing and high tech systems and materials.

For Brazil, blessed with enormous natural resources, an impressive biodiversity, lots of land, a 5000 km coastline and a rich tradition in chemistry and biotechnology, the “bio-economia”, is of vital importance.

Most of the investments in research, development and innovation come from the public sector are more or less equally divided at state and federal levels. Since 2012 a huge fund of 32 billion R$ (about 14 billion €) is available for improving the innovative capacity and competitiveness of the Brazilian industry and economy. CNI (the Confederation of National Industry) and SENAI (The National Institute for Vocational Training) run this program. This federal plan includes the development of 23 Innovation Centers and more than 75 Technology Service centers.

The NOST office operates since 2012 in São Paulo. Theo Groothuizen operates as Counsellor for Science, Technology & Innovation in August 2012, and since October 2013 Hans Dorresteijn was appointed as Innovation Advisor at the Embassy in Brasilia. The first years priority will be given to put the Netherlands on the map in Brazil and vica versa by organizing small expert missions to the Netherlands and by supporting Dutch knowledge-intensive companies, institutes of higher education and research organizations to set up collaboration with Brazilian counterparts.
United States of America

The United States is the most innovative country in the world. Washington, DC, where the federal science and technology budgets and strategies are developed is the home base of many scientific platforms and organizations that shape research in life sciences, chemistry, new materials, medical sciences, and emerging technologies. It is also the location of agencies such as the National Institute of Standards and Technology, which develops standards regarding the chemical and energy industries, and scientific and industry advocacy groups such as the American Chemical Society (ACS) and the Biotechnology Industry Organization (BIO). Large American companies, but also small start-ups, develop new plans and compete in government procurement related to among others the energy, defense and health industries; the application of innovative biobased materials is truly multidisciplinary.

Silicon Valley is the most innovative region in the world. Here Venture Capital, knowledge and entrepreneurship come together in a unique way. After being home to the IT developments of the world it is now leading the developments in clean tech and life sciences. But the United States encompasses many more innovative industrial regions. Here entrepreneurship combined with new knowledge from universities and research institutes is abundantly available.

Canada

On a somewhat smaller scale the developments in science and technology that are now taking place in Canada can be very attractive to innovators in the Netherlands. Aside from being one of the world’s largest countries in agriculture and forestry; the focus in Canada is primarily on innovations in biomass, as well as on biobased material. There are many opportunities for collaboration with universities, research organizations in Canada and innovative companies in the Netherlands.

The Netherlands Office for Science and Technology, located in both Washington, DC, and San Francisco, CA, performs on request analyses of these new innovation trends, answers technology based questions, identifies matchmaking opportunities and scouts for partnering possibilities in the field of scientific research and technology development in the United States and Canada. The North America team comprises of Roger Kleinenberg, Karin Louzada, Robert Thijssen, Martijn Nuijten, John van den Heuvel, Jantienne Kranendonk-van der Meij, Natasha Chatlein and Gerda Camara.
NL Agency is a department of the Dutch Ministry of Economic Affairs, that implements government policy for sustainability, innovation, and international business and cooperation. It is the contact point for businesses, educational institutions and government bodies for information and advice, financing, networking and regulatory matters.

The division NL EVD International stimulates international business and cooperation and promotes a positive image of the Netherlands abroad.

**NOST Network**
The Netherlands Office for Science and Technology (NOST) Network or in Dutch Innovatie Attaché Netwerk /IA Netwerk, is a collective of officers working for the internationalisation of Dutch R&D. The NOST offices, always part of a Netherlands embassy or consulate, are stationed in France, Germany, Turkey, Israel, Russia, USA (incl. Canada), Brazil, China, India, Japan, Taiwan, Singapore, South Korea, and at the EU. The NOST Network offers Dutch companies and research institutes a free subscription on the IA Special. This publication will inform you on international technology developments through articles written by the Officers.

**Quoting & referring**
Please note that you are free to quote or refer to this document provided you mention the source in your publication and inform the Central Office for Science & Technology at the NL EVD International by sending a copy to:
Agency NL
NL EVD International
Central Office for Science & Technology (IA Netwerk)
PO Box 93144
2509 AC The Hague THE NETHERLANDS
(Email: ianetwerk@agentschapnl.nl)

**Illustrations, and tables**
The quality of tables, diagrams, web links and illustrations in this publication, cannot be guaranteed. You may wish to enquire about further details or background information do not hesitate to contact us or the Netherlands Science & Technology Officer in your country or part of the world.

**Further information**
If you have any question due to this publication or event, please let us know. You can send an email or call directly to the officer concerned. You can also email your question to the NOST/IA central office in The Hague. They will forward your question to the appropriate NOST officer.

**Design**
Tigges, strategy, concept, design, Rijswijk.

**Print**
Vijfkeerblauw
NOST Central office
Headoffice of the Netherlands Office for Science & Technology
P.O. Box 53144 | 2509 AC The Hague
Bart Sattler, Hans Bosch, Roy Paulissen, Lies Timorasan, Wiwik Khohonggiem, Ankie Overduin
T +31 (0)88 602 15 04
E ianetwerk@agentschapnl.nl
W www.ianetwerk.nl (Dutch only)

NOST China 7 hrs later
Embassy of the Kingdom of the Netherlands
4, Liangmahe Nanlu
Beijing 100600, China
Ian Reint Smit, David Pho (Science Attaché), Jaming Kan, Qing Ma, Maurits van Dijk
T +86-10-85320202
F +8 610 5776 5534
E peking@ianetwerk.nl
Jaap van Etten (Shanghai), Dirk Jan Boudeling
E shanghai@ianetwerk.nl
Hans Wesseling (Guangzhou)
E guangzhou@ianetwerk.nl

NOST Germany
Botschaft des Königreichs der Niederlande
Büro für Wissenschaft und Technologie
Klosterstrasse 50
D-10179 Berlin
Eelco van der Eijk, Joop Gilijamse, Rianne Baerselman
T +49 30 20956219
F +49 30 20956471
E berlin@ianetwerk.nl

NOST EU
First Embassy Secretary
Research and Atomic Questions Division
Permanent Representation of the Netherlands to the EU
Kortenberglaan 4-10
Brussels
Dave Pieters
T +32-2-679 1777
F +32-2-6791777
E brussel@ianetwerk.nl

NOST France
Ambassade du Royaume des Pays-Bas pour la Science et la Technologie
7 Rue Eblié
F-75007, Paris
Eric van Koeij, Joannette Polo-Leemreis, Elisabeth van Zutphen
T +33 1 40 63 33 33
F +33 1 40 62 34 56
E paris@ianetwerk.nl

NOST Turkey 1 hr later
Embassy of the Kingdom of the Netherlands
Turan Gunes Bulvan | Hollandia Caddesi No. 5
06550 Yildiz, Ankara
Turkey
Rory Nuijens
T +90 312 409 1819
M +90 530 844 2810
E ankara@ianetwerk.nl

NOST India 3.30 hrs later
Embassy of the Kingdom of the Netherlands
Department for Science & Technology
6/50-F, Shantipath, Chnakyapuri, New Delhi- 110 021
India
Jelle Nijdam, Vikas Kohli, Akanksha Sharma
T +91 11 24197625
F +91 11 24197710
E delhi@ianetwerk.nl
Freel Jan Frechis (Mumbai)
E mumbai@ianetwerk.nl

NOST Japan 7 hrs later
Embassy of the Kingdom of the Netherlands
Office for Science and Technology
3-6-3 Shibakoen
Minato-ku, Tokyo 105-0011
Paul op den Brouw, Rob Stroeks, Kugoko Sugimoto, Kikuo Hiyokawa, Mihoko Ishii (assistant)
T +81 3 5776 5510
F +81 3 5776 5534
E tokyo@ianetwerk.nl

NOST Singapore 6 hrs later
Embassy of the Kingdom of the Netherlands
Office for Science and Technology
541 Orchard Road, 13-01
Liit Towers Singapore 238881
Susan van Boxtel, Susanne van Loon
T +65 67 39 11 11
E singapore@ianetwerk.nl

US NOST Washington 6 hrs earlier
Embassy of the Kingdom of the Netherlands
Office for Science & Technology
4200 Linnean Avenue N.W.
Washington DC 20008-3866, USA
Roger Kleinenberg, Karin Lourada
Martijn Nuijten, Jantiene van der Meij-Kranendonk, Gerda Camara
T +1 202 274 27 27
F +1 202 666 07 28
E washington@ianetwerk.nl

US NOST San Francisco 9 hrs earlier
Netherlands Office for Science and Technology
1 Montgomery Street, Suite 3100
San Francisco, CA 94104, USA
Robert Thijssen, John van den Heuvel, Natasha Chatlein
T +1 415 2912080
F +1 415 2912049
E sanfrancisco@ianetwerk.nl

NOST South Korea 7 hrs later
Embassy of the Kingdom of the Netherlands
Netherlands Office of Science and Technology
10F Jeongdong Building
15-5 Jeong-dong, Jung-gu
Seoul, 100-784
South-Korea
Peter Wijhiuizen, Yewon Cha
T Tel: +82 2 311 8600
F +82 2 311 8650
E seoul@ianetwerk.nl

NOST Israel
Embassy of the Kingdom of the Netherlands
Office for Science and Technology
Beit Oz, 13e verdieping
14 Abba Hillel Street / Ramat Gan 52506
P.O. Box 1967 / Ramat Gan 52118
Tel Aviv
Paul Jansen
T +972 (3) 75 40 744
Direct +972 (03) 7540 777
E israel@ianetwerk.nl

NOST Russia 2 hrs later
Embassy of the Kingdom of the Netherlands
Netherlands Office for Science and Technology
Kalashny pereulok 6 | 115127 | Moscow |
Russian Federation
Russia
Joyce Ten Holter
T +7 495 797 29 69
F +7 495 797 29 07
E moskou@ianetwerk.nl

NOST Taiwan 6 hrs later
Netherlands Trade & Investment Office
Netherlands Office for Science & Technology
5F, No. 133, Min Sheng East Road
Section 3, Taipei-105
Taiwan
Kasper Nossent
T +886 (0)978122819
E Taiwan@ianetwerk.nl / kaspernossent@ntio.org.tw

Brazil NOST São Paulo 5 hrs earlier
Consulate General of the Kingdom of the Netherlands
Netherlands Office for Science & Technology
Avenida Brigadeiro Faria Lima, 1779 - 3. Floor
Jardim Paulistano
01452-001 São Paulo SP
Theo Groothuizen, Lucienne Vaartjes (office manager)
T +55 (0) 11 - 3811 3307
F +55 (0)11 - 3814 0802
E saopaulo@ianetwerk.nl

Brazil NOST Brasilia
Embassy of the Kingdom of the Netherlands
Netherlands Office for Science, Technology
SES - Quadra 801, Lote 95
70405-900 Brasilia – DF
Hans Dorresteijn
T +55 61 3961 3236
F +55 61 3321 4769
E brasilia@ianetwerk.nl

NOST Indonesia
Embassy of the Kingdom of the Netherlands
Department for Science & Technology
P.O. Box 93144 | 2509 AC The Hague
Bart Sattler, Hans Bosch, Roy Paulissen, Lies Timorasan, Wiwik Khohonggiem, Ankie Overduin
T +31 (0)88 602 15 04
E ianetwerk@agentschapnl.nl
W www.ianetwerk.nl (Dutch only)
The Netherlands

France

Germany

Brazil

Canada

India

United States

Japan

Singapore

Europe