
Aan: Connekt
Van: Liesbeth Staps, TKI Dinalog
Datum: Uitgevoerd in opdracht van Ministerie I&M/ Connekt via TKI Dinalog
Betreft: 6 juli 2016
Buitenlandpromotie
Project nummer: PTL08.009, Deliverable 2G
Dutch Way ketensamenwerking India, 1-3 juni 2016, Mumbai

Background

Dinalog has been in contact with SCA group, in particular director Bhairavi Jani, since 2012. Bhairavi was selected by the Dutch Embassy in India as the most high potential in the logistics industry and invited to the Dutch Visitor Program in Logistics in 2013. She also addressed the Smart Logistics conference organized by the Netherlands Office for Science & Technology (NOST, Economic Affairs) and Dinalog as a key note speaker in November 2013. She has a vast network in both business, institutes and politics. Under the MoU as signed by Dinalog and SCA Group, Dinalog has been facilitating the establishment of the SCA Institute of Logistics and Supply Chain with knowledge exchange, guidance and advisory based on the expertise built up in the Netherlands.

SCA group

Established in 1896, the SCA Group undertake activities in port, shipping, customs clearance, warehousing, service contracting, freight forwarding, logistics infrastructure building and management, air cargo, supply chain consultancy and IT. (www.scagroup.in)

SCA Institute

The SCA Group has set up a R&D Center that can undertake Research and Development, Experimental Development, Human Capital Building and SME Knowledge dissemination. The Institute is 100% privately funded and collaborates closely with government policy and initiatives. It endeavors to create a platform in which industry, academia, government, and international organization can collaborate and co-create next practices in Indian and global logistics. The institute will work towards creating a more robust and thriving advance logistics ecosystem in India through research, experimental projects, human capacity building, SME knowledge dissemination, consulting and incubation.

Dinalog has been facilitating SCA Group in the set-up phase. Dinalog also initiated the contact with Wageningen University to drive the start of projects in agrologistics supply chain; this has resulted in a MoU between the two institutes with two projects about to start.

Roadmap workshop

Dinalog visited India to learn more about the challenges in the logistics system in India and to lead a roadmap workshop for the logistics sector in India by the SCA Institute.

The roadmap workshop was developed based on the expertise of the Dutch collaboration logistics model and the network and expertise of the SCA Institute with participants from expertise areas relating to important developments for the evolution of logistics, such as big data, venturing and agrofood. In line with the Dutch collaborative model, people were involved from the institute, business and government.

The objective was to formulate the ambitions for logistics for India, and the role of the SCA Institute in addressing these.

Agenda

- 10.00 – 10.30 hrs: Brief introductions SCA and Dinalog
10.30 – 12.30 hrs: Sharing logistics challenges and opportunities for India in 2025.
12.30 – 13.00 hrs: Generation of project ideas derived from the ambitions
13.00 – 14.00 hrs: Lunch
14.00 – 15.00 hrs: Detailing selected project ideas in a template
15.00 – 16.30 hrs: Development Jani SCA Institute activity models

Participants (in meeting and online)

- Mr. Tushar Jani – Chairman, SCA Group
- Dr. Albert Veenstra – Scientific Director, Dinalog
- Dr. Gitanjali Swamy – Managing Director, IoTTask LLC
- Mr. Manoj Karamchandani – President & CEO Datalynx Inc.
- Dr. Rahul Mirchandani – Executive Director, Aries Agro Ltd
- Mr. Rajinder Balaraman – Vice President, Matrix Partners
- Dr. KV Sreerama Murthy – CEO & Chief Data Scientist, Quadratic Insights Pvt Ltd
- Ms. Liesbeth Staps Brügemann – Program Manager, TKI Dinalog
- Ms. Shalaka Joshi – Director, IEF Entrepreneurship Foundation
- Ms. Bhairavi Jani – Executive Director, SCA Group

Report

Albert Veenstra introduced Dinalog, the view on logistics and collaboration for innovation with a presentation.



DINALOG DRIVEN BY OPEN INNOVATION
JANI SCA R&D
3 June 2016

- Logistics and supply chain management
- Innovation network
- Research & Development
- Knowledge sharing
- Demonstration & discovery
- New business opportunities
- THE hotspot for supply chain professionals

THE NETHERLANDS = LOGISTICS

- Geographical position as gateway to Europe
- Excellent Mainports (Rotterdam, Schiphol/Amsterdam)
- Excellent hinterland connections (road, rail, barge, shortsea)
- Logistics Service Providers (1PL-4PL)
- Legislative framework & customs
- High level of knowledge: 8 research universities and 11 Universities of Applied Sciences specialized in logistics.

CHALLENGES

- Maintain and strengthen Dutch position in the world economy
- Global developments: shift in global trade flows, development of competitive logistics hubs, bigger container vessels, digitization, demographic change, etc.
- Alignment of education to sector needs

AMBITION – POINT ON THE HORIZON 2020

In 2020, the Netherlands will hold an international top position:

1. In the handling of transport flows;
2. As supply chain coordinator of International logistics activities;
3. As a country with an attractive Innovation and business climate for supply chain activities

Theme 1: The Netherlands as one connected logistics system

Theme 2: Supply Chain Coordination

Theme 3: Innovation and business climate

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AMBITION – POINT ON THE HORIZON 2020

triple helix collaboration

Link to video on TKI Dinalog
<https://www.youtube.com/watch?v=AFGNWF2njz0>

DINALOG
Dutch Institute for Advanced Logistics

Logistics Innovation Vision

Open ICT-platform
Synchronodal Transport
Trade compliance and customs
Cross Chain Control Centers
Service logistics
Supply Chain Finance

Fundamental Knowledge

Applied knowledge & technology

Development products/services

Market-driven pilots

INNOVATIE IN BEWEGING
DINALOG VAN NEDERLAND

DINALOG
Dutch Institute for Advanced Logistics

Topsector Logistics Actions

- Neutral Logistics Information Platform
- Synchronodal transport
- Core infrastructure network
- Trade Compliance and Border Management
- Cross Chain Collaboration Centers
- Service Logistics
- Supply Chain Finance
- Marketing abroad
- Simplification of Law and Regulation
- Human Capital Agenda

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TKI LOGISTIEK
Topconsortium Kennis en Innovatie

Topsector Logistics Governance model

"Top Team" logistics

Program secretariat

Board

Top Consortium for Knowledge and Innovation (TKI)

TKI LOGISTIEK

Practical financial support program

Connekt

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DINALOG
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Models for logistics innovation

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DINALOG
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Dinalog program lines

RESEARCH & DEVELOPMENT

HUMAN CAPITAL

LINE AND KNOWLEDGE DISSEMINATION

INTERNATIONAL

EXPERIENCE

LOGISTICS ACCELERATION

DEMO PROJECTS

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The diagram illustrates the multidisciplinary nature of logistics research. It features three main vertices: 'Government' at the top, 'Business' at the bottom left, and 'Knowledge institutes' at the bottom right. A large yellow triangle connects the 'Business' and 'Knowledge institutes' vertices, symbolizing their interconnectedness. The 'Government' vertex is also connected to the triangle. Various logos of different organizations are arranged around the perimeter of the triangle, representing the diverse stakeholders involved in logistics research.



DIALOG SUPPLY CHAIN COLLABORATION GUIDE

The diagram illustrates a cyclical process for supply chain collaboration:

- Outer Ring (Evaluation level):**
 - Evaluation of partners
 - Expect, maintain or terminate
 - Collaboration strategy
 - Partner selection
 - Risk management
 - Business relationship
 - Business relationship
- Inner Ring (Implementation level):**
 - Implementation of partners
 - Implementation of partners
- Center:** BUILDING TRUST (Soft issues)



Gaming platform development

The screenshot shows a user interface for a gaming platform, featuring:

- A central dashboard with a game preview titled "SPEEL NU DE GAME!".
- Social media sharing options (Facebook, Twitter, LinkedIn).
- An "Order history" section.
- A "LEADERBOARD" section listing top players:

Rank	Name	Score
1.	Ferdinand Van Aalst	768
2.	Bart van Velzen	6686
3.	Hendrikx Uilenbaet	4888
4.	Armed Glosstra van Loon	3686
5.	Sayyidah Tehjulpebury	686

- A "COMMENTS" section with a comment from "Ferdinand Van Aalst".
- Buttons for "LAST WEEKEND" and "NEXT WEEKEND".

IMPACT OF INNOVATION in multimodal hinterland logistics

R&D ULTIMATE

- Efficient multimodal hinterland networks
- "Algorithm for software for efficient planning in case of disruptions"
- "Potential cost reduction of 1 million euros"

IMPACT OF INNOVATION in flower logistics

R&D DaVinci3i

- Dutch Agricultural Virtualized International Network with Coordination, Consolidation, Collaboration and Information Availability
- "Improved insight in the efficiency of various logistics concepts"
- "Implementation of gain sharing model for collaboration"
- "Introduction of ICT collaboration platform"

IMPACT OF INNOVATION in the chemical supply chain

R&D 4C4Chem

Business case for pooling outbound logistics with potential 10% of cost reduction and 19% in carbon emissions"

"Software tools for forecasting, calculation and simulation"

Partners: Eindhoven University of Technology, SABIC Chemicals, Shell Chemical Europe, Dow Europe, Den Hartogh Logistics, Cefalo

IMPACT OF INNOVATION in supply chain finance for working capital

DEMO Expedited Payment

"Contractual framework for Supply Chain Finance"

"Reverse Factoring calculation tool to assess the financial benefits for both supplier and buyer"

Partners: Cass Europe, Clifford Chance, Van Oers Accountancy & Advies, Schneider Electric IT Europe, DHL Global Forwarding, DSV, Nyenrode University, HACAS, Jan de Rijk, TLN, EVO

IMPACT OF INNOVATION in herbs and spices logistics

INTERNATIONAL LIVING LAB LOGISTICS INDONESIA-NL

"20% reduction handling time in port including quality controls"

"Tapping into foreign markets through better visibility and traceability in the supply chain"

"Rain Forest Alliance and Organic Agriculture certification"

Partners: EP Nuffic, University of Applied Sciences of Rotterdam, Arminius/Maastrichtse Brabander NV, Port of Rotterdam, Witteveen+Bos, Samson, IFC, Institut Teknologi Bandung, Institut Pertanian Bogor, Noppenberg Research Institute

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Activity model

What do we do?
<ul style="list-style-type: none"> Continuous update of innovation agendas Contribute to Human Capital Agenda and foreign promotion Initiate research and innovation Financial support for research projects Specific support for SME's and Start-ups
<div style="display: flex; justify-content: space-around;"> <div>Market-driven pilots</div> <div>Development products/services</div> <div>Applied knowledge & technology</div> <div>Fundamental knowledge</div> </div>

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AMBITION – POINT ON THE HORIZON 2020

	Government - business - knowledge
	triple helix collaboration
	facilities /ICT
	infrastructure network
	business models cost-benefit
	societal interest

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AMBITION – POINT ON THE HORIZON 2020

	Government - business - knowledge	
	triple helix collaboration	
	facilities /ICT	1. Additional turnover from new supply chain coordination activities: in 2020 a contribution of €17.3 bn to the GDP, ap with 15 + 8 of control towers 2. Inward foreign direct investment for logistics and supply chain coordination: in 2020 100 companies and activities (an increase of 50% compared to 2010)
	infrastructure network	Development of core network
	business models cost-benefit	Public-private financing
	societal interest	1. Number of avoided road kilometers: in 2020 minimum 85 mn annually 2. Reduction of CO2 emissions: in 2020: 68.700 tonnes annually 3. Human Capital Influx of BSc and MSc students in logistics: in 2020 increase of 50% from 1400 (2010) to 2100 (2020)

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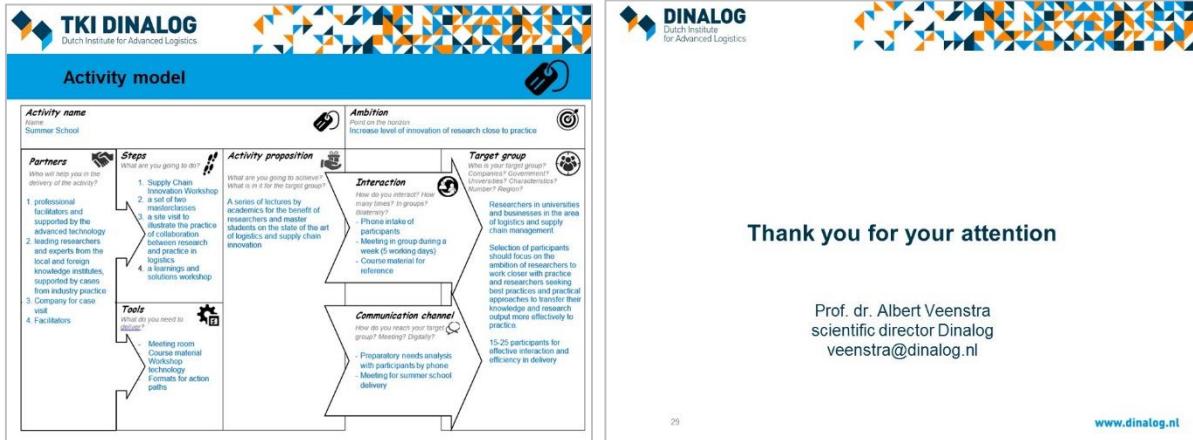
PROJECTS

Trade & border management
Cross chain collaboration
Synchromodality
Service logistics
Supply Chain Finance
ICT
City logistics
Human capital

DINALOG
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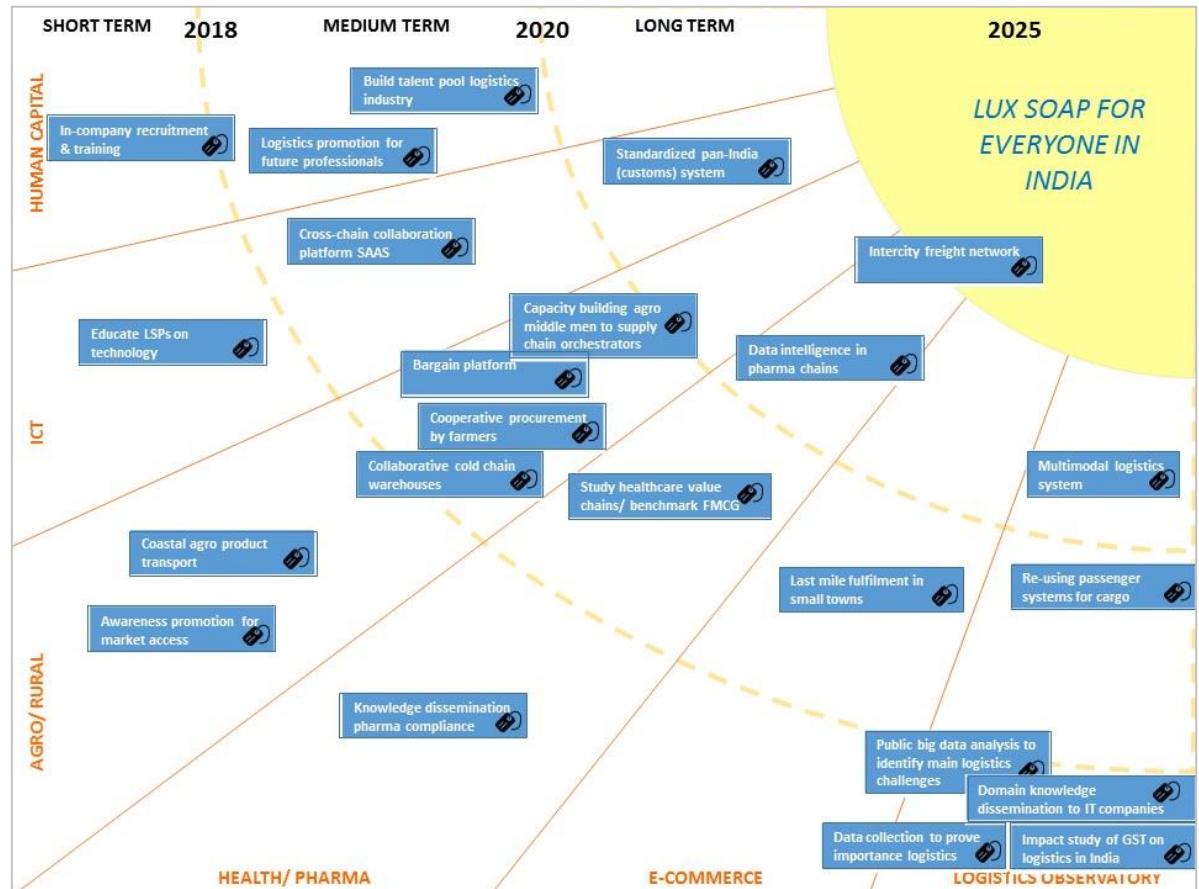
Project idea

Project name	Current situation
	what is the starting point, what bottlenecks need to be solved
Project participants	Expected results
	The envisaged results of the project based on the point of the horizon
Actions/ steps	
What steps need to be taken in order to reach the envisaged results	
Duration	Delivery
What is the timeline of the activities	When? 2016-2017 2018-2019 2020-2025



Given the setting with people calling in, all participants shared their views and input in turn. A worksheet was circulated beforehand to complete from their own vision, interest and background to focus the input and the discussion. The expert input on ambitions for the institute was synthesized into one integrated roadmap. In a separate session, individual project ideas were generated.

A summary of the roadmap is depicted on the next page:



One specific project idea 'Multimodal logistics system' was elaborated on, guided by the project worksheet template. The SCA Institute further will elaborate on other project ideas.

Project name Multimodal logistics system			Current situation what is the starting point, what bottlenecks need to be solved <ul style="list-style-type: none"> - Lack of skilled manpower - Fragmented infrastructure - Regulatory bottlenecks (incl tax) - Topic has least government support - Fragmented operators - High economic growth 						
Project participants Who can contribute to the project with knowledge or knowhow <ul style="list-style-type: none"> - Planning agency NITI - Federal & state governments - Major cargo players - Economic institute - Regulatory experts - Technology experts (platform...) - Global experts (input from other experiences, e.g. TEN-T) 			Expected results The envisaged results of the project based on the point of the horizon Integrated multimodal logistics system for pan-India						
Actions/ steps What steps need to be taken in order to reach the envisaged results <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 20%;">Step 1: <ul style="list-style-type: none"> - Analysis regulatory roadblocks - Analysis cargo flows - Analysis current infrastructure and developments - Economic consumer data - Cost analysis </td> <td style="vertical-align: top; width: 20%;">Step 2: <ul style="list-style-type: none"> - Gap analysis single window - Network study with corridor analysis </td> <td style="vertical-align: top; width: 20%;">Step 3: <ul style="list-style-type: none"> - Develop multimodal single window - Multimodal document - Network design </td> <td style="vertical-align: top; width: 20%;">Step 4: <ul style="list-style-type: none"> - Policy change (together with government bodies) - Cross-state collaboration - Investment in development of infrastructure/ hubs/ facilities </td> <td style="vertical-align: top; width: 20%;">Step 5: <ul style="list-style-type: none"> - Multimodal planning platform - Communication and gaming for change in mindshift and situational awareness for operation </td> </tr> </table>					Step 1: <ul style="list-style-type: none"> - Analysis regulatory roadblocks - Analysis cargo flows - Analysis current infrastructure and developments - Economic consumer data - Cost analysis 	Step 2: <ul style="list-style-type: none"> - Gap analysis single window - Network study with corridor analysis 	Step 3: <ul style="list-style-type: none"> - Develop multimodal single window - Multimodal document - Network design 	Step 4: <ul style="list-style-type: none"> - Policy change (together with government bodies) - Cross-state collaboration - Investment in development of infrastructure/ hubs/ facilities 	Step 5: <ul style="list-style-type: none"> - Multimodal planning platform - Communication and gaming for change in mindshift and situational awareness for operation
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Duration What is the timeline of the activities Year 1: steps 1&2 Year 2: steps 3&4 Year 2-10: step 4 ongoing infrastructure investment & development Year 5-10: step 5				Delivery When? 2016-2017? 2016-2019? 2020-2025? 2025 					

We finally discussed activity models for the various projects with the board for the SCA Institute. These will also be elaborated further in due course.

Conclusions and recommendations

SCA institute has made a good start with the development of the integral roadmap as well as several starting projects. The roadmap shows that there is a lot of work to be done, which translates in a considerable project portfolio if all initiatives are picked up.

Important steps forward are:

1. The development of 1 or 2 flagship projects that signify the ambition, goals and trademark approach of the institute.
2. The set up of a small office for the institute to establish continuity and actively develop the stakeholder network and the projects.
3. The start of a concrete Dutch-Indian project on the exchange of knowledge and training for logisticians, funded jointly.

To elaborate on the latter; from a cooperation point of view, the largest benefit for Dinalog to intensify its involvement would be in the area of training and education. In this area, both the Dutch side and the Indian side have a contribution to make that would result in benefits on both sides. A project could encompass knowledge exchange and the sharing of educational material, as well as the joint development of innovative learning tools and the application of those tools in remote areas and among large numbers of participants.

BLOG

Dinalog meets India

India heeft een nieuwe premier: Narendra Modi. Modi is dingen anders aan het doen in India. Voor het eerst in jaren staat logistiek op de politieke agenda. De archaïsche infrastructuur die door de Engelsen is achtergelaten – en vooral hun specifieke doelen diende – moet worden omgebouwd om de economische ontwikkeling die in het land nog steeds doorgaat, te faciliteren. India wil bijvoorbeeld 36 nieuwe luchtvrachthubs gaan bouwen, en de havens moeten beter aansluiten op het wegennet.

Dinalog heeft al een aantal jaren contact met de SCA Logistics Group. Dit is een logistieke dienstverlener en luchtvrachtafhandelaar, die meer aan research en development wil gaan doen. Ze gebruiken daarvoor Dinalog als rolmodel. Begin juni waren we daarom in Mumbai om samen na te denken over de prioriteiten van het SCA-institute, en ideeën voor projecten te genereren.

De prioriteiten voor India zijn vrij herkenbaar: human capital, agrologistiek, pharma en health, ICT en technologie, en e-commerce. Er lijkt heel weinig formele training te zijn voor logistieke beroepen. De gevolgen zijn duidelijk: veel schade, lage performance, inefficiency. Een ander probleem is dat het ontwikkelen van algemeen onderwijsmateriaal moeilijk is, aangezien er veertien officiële talen zijn in India. Het inrichten van een complete cold chain voor zowel agro als pharma is een onmiddellijke prioriteit. Er gaat nu veel product verloren in de eerste schakels van de keten, omdat het niet goed gekoeld kan worden. Distributie in India is een enorm probleem, dat met e-commerce alleen nog maar erger wordt. Zo rijden goederentreinen in Mumbai tot in het centrum van de stad. In die stad is het verkeer zo druk dat de enige mogelijkheid om de wagons te lossen en de goederen verder te distribueren de handkar is. Rondom het station lopen dus veel mannetjes met hoog opgestapelde handkarren rond om spullen op te halen of te brengen.

Een positief punt is dat elke Indiër een smartphone heeft. De introductie van apps en andere tools kan dus ook heel effectief zijn om knelpunten op te lossen.

Een laatste grote prioriteit is het verzamelen van data en statistieken over logistiek. Er is in India heel weinig inzicht in de omvang van de infrastructuur, het aantal voertuigen, ladingstromen, logistieke faciliteiten, en de kwaliteit en kosten van logistieke activiteiten. Het inrichten van een logistiek observatorium is daarom een zesde roadmap geworden.

Toen wij er waren stond er een pagina grote advertentie in de krant over de maatregelen van Modi voor economie, handel en logistiek: inrichten van een single window voor de douane, betere risicoanalyse voor meerdere overheidsdiensten, verbeterde contract arbitrage, openingstijden van de douane naar 24x7, enzovoort. In de workshop kwamen we op een hele praktische visie op wat er in India moet gebeuren: iedereen in heel India moet aan zeep kunnen komen, en iedereen in India die zeep maakt, moet het kunnen verkopen en leveren aan zijn klant. Dus de ambitie is duidelijk. Nu het logistieke systeem nog even moderniseren.



Albert Veenstra, wetenschappelijk directeur Dinalog

(<http://www.dinalog.nl/blog-dinalog-meets-india/>, published 13 June 2016)