

### **Two-day International Conference**

**Department of Transport & Regional Economics / Research Center on Commodity Flows** 

# THE PORT AND MARITIME SECTOR: KEY DEVELOPMENTS AND CHALLENGES

WCTRS - Special Interest Group 2

11- 12 May 2015



|                  | Monday 11 May   |  |   |
|------------------|---|--|---|
| 8.00 – 8.45hrs   | Registration of participants - Hof van Liere  |  |   |
| 8.45 - 9.15hrs   | Official opening  |  |   |
|                  | Thierry Vanelslander, Scientific conference co-ordinator  |  |   |
|                  | Jean-Pierre Timmermans, Chair Research Council UA   |  |   |
|                  | Ports   | Shipping   | Chain / Sustainability  |
| 9.15 – 10.30hrs  | Governance  | Macro  | Chain   |
|                  | Session Chair: Marzieh Nazemzadeh   | Session Chair: Hilde Meersman  | Session Chair: Eddy Van de Voorde   |
|                  | Room: Tassiszaal  | Room: Willem Elsschotzaal  | Room: Greshamzaal   |
|                  | Another model for Terminal Concessions' Selection Criteria  | Uncertainty and long term forecasts in shipping: An analytical framework                     | The growing role of port railway systems in intermodal supply chains - The case of Bremerhaven/Germany                    |
|                  | Cardadeiro Eduardo, José Amado da Silva   | Eleni Thanopoulou and Siri Pettersen Strandenes  | Kraemer Iven  |
|                  | Institutions and port performance: a case study of the Port of Tauranga, New Zealand  | A system of models to estimate container maritime demand flows at international scale        | Legal hindrances to freight integration   |
|                  | Justin Pyvis and Malcolm Tull   | Russo Francesco , Giuseppe Musolino, Vincenzo Assumma  | Verheyen Wouter   |
|                  | The governance structure of port authorities: Finding the equilibrium between organisational efficiency and public objectives | Competition among container ports in the North Adriatic                                      | Identifying Key Enablers for Synchromodal Transport Chains in Central Europe  |
|                  | Peeters Chris, Jaap Reijling, Ad Verbrugge  | Elen Twrdy , Milan Batista , Maja Stojaković   | Lisa-Maria Putz, Christian Haider, Alexandra Haller, Oliver Schauer   |
|                  |   |  | Improving Mexican Port Supply Chains: A Regulatory and Policy Perspective   |
|                  |   |  | Acciaro Michele   |
| 10.30 – 10.45hrs | Coffee break  |  |   |
| 10.45 - 11.15hrs | Keynote speech Prof. Costas Grammenos   |  |   |
| 11.15- 12.15hrs  | Macro   | Market   | Sustainable ports   |
|                  | Session Chair: Jochen Maes  | Session Chair: Ties Vanthillo  | Session Chair: Claudio Ferrari  |
|                  | Room: TassisZaal  | Room: Willem Elschotzaal   | Room: Greshamzaal   |
|                  | The evolving links between seaports and manufacturing activities in Japan: A core-periphery approach                          | An analysis of entry and exit decisions in shipping markets under uncertainty                | Environmental cost and eco-efficiency related to in-port exhaust emissions: The case of vessel traffic in Las Palmas Port |
|                  | Guerrero David, Hidekazu Itoh   | Balliauw Matteo  | Miluše Tichavska, Beatriz Tovar   |
|                  | Transport contribution to the economic development, case study of Antwerp   | Maritime Worldl Cities: opening the blackbox of global maritime management networks          | Port Sustainability and Network Optimization  |
|                  | Nazemzadeh Marzieh, Hilde Meersman, Thierry Vanelslander  | Verhetsel Ann  | L. SISLIAN, A. JAEGLER, P. CARIOU   |
|                  | Research on China port FDI regional advantage in the process of attracting investment   | Revealing the potential of maritime transport for blue economy in the Adriatic-Ionian region | Environmental Conflicts in Port Cities: a Case Study of Port Jackson and Port Botany in Metropolitan Sydney               |
|                  | Tu  | Niavis Spyros, Theodora Papatheochari, Theofilos Kyratsoulis, Harry<br>Coccossis             | Styhre Linda, John Black  |
| 12.15 – 13.30hrs | Walking Lunch   |  |   |



| 13.30 - 15hrs    | Operations  | Operations   | Chain  |
|------------------|---|--|--|
|                  | Session Chair: David Guerrero   | Session Chair: Edwin van Hassel  | Session Chair:Valentin Carlan  |
|                  | Room: Tassiszaal  | Room: Willem Elsschotzaal  | Room: Greshamzaal  |
|                  | Multiple objective optimization in transportation systems. The case of seaport planning   | Automatic ticketing on ferry crossings                                   | Investigation of empty container repositioning at regional level   |
|                  | Brauers Willem  | Solvoll Gisle  | Javdani Zamani Saeed   |
|                  | Ports structural and operational benchmark: methodology and application to Mediterranean basin  | Practical Logistics (Simulator) Training Concept for Nautical Personnel  | Port and Inland Mode Choice from the Exporters' and Forwarders' Perspectives                               |
|                  | Rosa Alessandra Polo, <b>Stefano Ricci</b>  | Alexandra Haller, Lisa-Maria Putz, Oliver Schauer                        | Munajat Tri Nugroho , Anthony Whiteing, Gerard de Jong   |
|                  | Managing logistics portoperations based on a standardized framework   | Ships times in port  | Weakest link or strongest node? Prospects for inland ports development in transnational European corridors |
|                  | Henrik Ringsberg and Kent Lumsden   | Brian Slack, Claude Comtois  | Patrick Witte, Bart Wiegmans   |
|                  | Discrimination at the ports – the welfare effects of giving commuters priority  | Production of Tailor-Made Digital Charts for Pilots                      | The bundling of intermodal rail flows from and to seaports. Concept, performances and policies in Europe   |
|                  | Thor-Erik Sandberg Hanssen and Terje Andreas Mathisen   | Moggert-Kägeler Friedhelm  | Kreutzberg Ekki, Rob Konings   |
| 15 - 15.15hrs    | Coffee break  |  |  |
| 15.15 – 16hrs    | Industry meets academia: the panel debate  Dimitrios Theologitis (Eur. Commission), Jean, Guy Haesevoets (BNP Paribas Fortis), Jean Verheyen (Nallian), Marc Beerlandt (MSC), Nik Delmeire (Eur. Shippers Council), Eddy Van de Voorde (UA) |  |  |
|                  | Room: Tassiszaal  |  |  |
| 16– 17hrs        | Governance  | Market   | Chain  |
|                  | Session Chair: Rik Hollen   | Session Chair: Saeed Javani  | Session Chair: Eleni Thanopoulou   |
|                  | Room: Tassiszaal  | Room: Willem Elsschotzaal  | Room: Greshamzaal  |
|                  | Contract Flexibility: Variable duration of seaport infrastructure PPPs  | Constraints on Canadian Arctic maritime connections                      | A Green Wave for Barges: Scheduling locks on an inland waterway  |
|                  | Domingues Sergio  | Marie-Andrée Giguère, Claude Comtois & Brian Slack                       | Verstichel Jannes  |
|                  | Insightful observations of trailer queues at congested container ports: How can we reduce congestion?   | Unfolding arctic sea routes – Implications on the global shipping Market | Different modelling approaches to identify promising Twin hub networks                                     |
|                  | Ichio Motono, Masahiko FURUICHI, Tamotsu NINOMIYA,<br>Satoshi SUZUKI, Masako FUSE   | Kiiski Tuomas  | Kreutzberg Ekki, Rob Konings, Cathy Macharis, Cees Witteveen   |
|                  |   | Homogenization in liner shipping industry (P3 vs. 2M)                    | Intermodal nodes and external costs: re-thinking, the current netword organisation                         |
|                  |   | Golbazi Parviz   | Ambrosino Daniela, Ferrari Claudio, Sciomachen Anna, Tei Alessio   |
| 17 - 17.15hrs    | Coffee break  |  |  |
| 17.15 – 18.30hrs | Macro   | Operations   | Sustainable ports  |
|                  | Session Chair: Yasmine Rashed   | Session Chair: Tom Pauwels   | Session Chair:Trevor Heaver  |
|                  | Room: Tassiszaal  | Room: Willem Elsschotzaal  | Room: Greshamzaal  |
|                  | Port development at the west coast of South American port industry: challenges and opportunities for integrating hinterlands into the global supply chain   | The maritime dimension of TEN-T in Europe. A MoS Prospective study       | Sediment management in North Western European ports: a stakeholder's viewpoint                             |
|                  | into the global supply chain  |  |  |



|                  | The impact of world trade on the Port of Rotterdam and the wider region of Rotterdam-Rijnmond | The Strategic Factors Shaping Competitiveness for Maritime Clusters: An Overview | Why and how EcoPorts has contributed to the long-term strategic goals of the European Sea Ports Organisation: Implications for international port associations |
|------------------|---|--|--|
|                  | Wim Heijman, Cornelis Gardebroek and Wouter van Os  | Peter J. Stavroulakis , Stratos Papadimitriou                                    | Hollen Rick M.A.   |
|                  | The chemical industry as a port-related activity: the case of the Antwerp cluster             | Comparative Analysis of Naval Costs for Accessibility to Sardinia and Corsica    | Challenges in Sustainable Container Terminal Operations  |
|                  | Vanthillo Ties  | Stefano Carrese, Valerio Cuneo, Sergio Maria Patella                             | Caglar Volkan  |
|                  | Port Centric Logistics: case of Eastern Baltic Sea Region                                     | The Venice Offshore-Onshore Terminal Concept                                     |  |
|                  | Efimova Elena   | Dimitrios Pachakis, Alessandra Libardo, Paolo Menegazzo                          |  |
| 18.30hrs - 19hrs | Moving to Town hall   |  |  |
| 19hrs            | Conference Walking Reception at Townhall  |  |  |
|                  |   |  |  |
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|                  | Tuesday 12 May  |  |   |  |
|------------------|---|--|---|--|
| 8.30 – 9.30hrs   | Operations  | Operations   | Chain   |  |
|                  | Session Chair: Matteo Balliauw  | Session Chair: Brian Slack   | Session Chair: Frank Troch  |  |
|                  | Room: Tassiszaal  | Room: Willem Elschotzaal   | Room: Greshamzaal   |  |
|                  | Optimizing manpower planning: experimentation in a transhipment container terminal  | Off-Shore Enhanced Oil Recovery in the North Sea: How to match CO2<br>Supply and Demand Given Uncertain Market Conditions          | Contestable port hinterlands: an empirical study  |  |
|                  | Di Francesco Massimo , Dìaz-Maroto Llorente Nuria ,<br>Zanda Simone , Zuddas Paola  | Compernolle, T., Welkenhuysen, K., Huisman, K., Piessens, K., Kort, P.   | Ferrari Claudi, Acciaro Michele, Bardi Andrea, Cusano Maria Ines,<br>Tei Alessio  |  |
|                  | Public financing of seaport infrastructures and services and port<br>charges according to EU law, policies, proposals and case-law and<br>national legal framework and case-law | Vessel Capacity Restrictions in the Fleet Deployment Problem. An Application to the Expansion of Panama Canal                      | Geo-prospective modelling of the sustainability of freight storage area in Mediterranean space of Motorway of sea (MoS) |  |
|                  | Orru Elena  | Herrera Rodriguez Manuel   | Juste Ndayishimiye  |  |
|                  | Ports' Supply Chain Cyber Security Challenges   | Optimal deployment of a cruise fleet   | Port Community System from competition to collaboration within the supply chain   |  |
|                  | Polemi Nineta   | Di Pillo Gianni  | Carlan Valentin, Christa Sys, Thierry Vanelslander  |  |
| 9.30 – 9.45hrs   | Coffee break  |  |   |  |
| 9.45 – 10.15hrs  | Keynote speech: Prof. Ennio Cascetta  |  |   |  |
|                  | Room: Tassiszaal  |  |   |  |
| 10.15 – 11.15hrs | Governance  | Operations   | Port Governance   |  |
|                  | Session Chair: Masoud Gargari   | Session Chair: Koos Frouws   | Session Chair: Miluse Tichavska   |  |
|                  | Room: Tassiszaal  | Room: Willem Elsschotzaal  | Room: Greshamzaal   |  |
|                  | Price determination for rental activities in French main seaports:<br>the public ownership legal framework facing market forces   | A Meta Heuristics for the Containership feeder routing problem with port selection process   | Strategic value creation of ports for their region and country: The role of strategic connectivity                      |  |
|                  | Magnan Marion   | Mohammad Saied Fallah, Amir Hossein Tayebi,Parviz Golbazi,<br>Mohammad Vaferi  | Hollen Rick M.A   |  |
|                  | A system dynamics model for dynamic cost-benefit analysis of<br>new port infrastructure in Flanders   | Consequences of Applying a Bunker Adjustment Factor?   | Implementation of the New Directive 2014/23EU on the Award of Concession Contracts - Croatian Example                   |  |
|                  | Koen De Winne   | Hilde Meersman, Yasmine Rashed, <b>Christa Sys</b> , Eddy Van de Voorde,<br>Thierry Vanelslander                                   | Goran Vojković, Melita Milenković   |  |
|                  |   | Flexible pricing policies in Suez canal  | Talking up a Storm? Political Rhetoric and Discursive Constructions in EU Port Policy-Making                            |  |
|                  |   | Samer Hassan Okasha, Mohamed Mahmoud Helal   | Richard Thomas, Peter Turnbull  |  |
| 11.15 – 11.30hrs | Coffee break  |  |   |  |
| 11.30 – 12.30hrs | Macro   | Operations   | Session Française   |  |
|                  | Session Chair: Koen De Winne  | Session Chair: Christa Sys   | Session Chair: Claude Comtois   |  |
|                  | Room: Tassiszaal  | Room: Willem Elsschotzaal  | Room: Greshamzaal   |  |
|                  | Rotterdam: port city, port with a city or city with a port?   | EEDI and/or speed reduction to reduce harmful emissions for seagoing RoRo vessels from the economic and the societal point of view | Assignment and Scheduling Problem   |  |
|                  | Kuipers Bart, Walter Manshanden, Menno Huijs  | Frouws Koos  | Morharami Gargari Masoud, Thierry Vanelslander, Kenneth Sörensen,<br>S. Javdani Zamani                                  |  |



|                  | Competition of Imports and Port Pricing, Evidence from the US   | Endless growth in container ship sizes to be stopped?  | Zones d'Activités Portuaires: essai d'application de la théorie des Parties<br>Prenantes(TPP)                                    |
|------------------|---|--|--|
|                  | Baert Lieselot  | Malchow Ulrich   | El Khayat Mustapha (Presenter: Oussama Elarbi)   |
|                  | The nature of economic activities in the neighbourhood of ports in Quebec?                                      | Modeling multimodal freight networks: theoretical issues and practical implications                                    | Le port d'Alger. Elément urbain structurant en devenir   |
|                  | Jean Dubé, <b>Koffi Gbenyo</b>  | Cascetta Ennio   | Almi Saïd  |
| 12.30 – 14.15hrs | Lunch + brainstorm session  |  |  |
| 14.15 – 15.15hrs | Operations  | Operations   | Port macro   |
|                  | Session Chair: Ekki Kreutzberger  | Session Chair: Trevor Heaver   | Session Chair: Michele Acciaro   |
|                  | Room: Tassiszaal  | Room: Willem Elschotzaal   | Room: Greshamzaal  |
|                  | Optimization of technological parameters logistics industrial park in the seaport                               | Economic Evaluation of the Environmental Impact of Shipping from the Perspective of CO2 Emissions                      | Investigating the contribution of MED research projects to the European port and maritime related policies for the Mediterranean |
|                  | Morozova Iryna  | Ben-Hakoun Elyakim, Mordechai Shechter, Yehuda Hayuth  | Konstantinos Papoutsis, <b>Eliza Gagatsi</b> , Georgia Aifadopoulou, Aristos<br>Halatsis   |
|                  | A Microsimulation Model for Real Time Management of Port Activities   | LNG bunkering facility development in the Baltic Sea   | The role of leading economic indicators in forecasting the container demand: A cointegration approach                            |
|                  | Stefano Gori, <b>Marco Petrelli</b>   | Daria Gritsenko & Arnaud Serry   | Yasmine Rashed , Hilde Meersman, Christa Sys, Eddy Van de<br>Voorde, and Thierry Vanelslander                                    |
|                  | Performance analysis of Ro-Ro terminal: a study case in Italy   | Two-sided Markets in Cruise Economics  | An advanced schipcall forecast model for the Netherlands   |
|                  | Gazzarri Alessandra   | Jamie Chen   | Maes Jeroen, Marten Van den Bossche  |
| 15.15 – 15.30hrs | Coffee break  |  |  |
| 15.30 – 16.30hrs | Governance  | Operations   | Sustainable shipping   |
|                  | Session Chair: Joost Hintjens   | Session Chair: Sergio Dominguez  | Session Chair: Bart Kuipers  |
|                  | Room: Tassiszaal  | Room: Willem Elsschotzaal  | Room: Greshamzaal  |
|                  | A complex adaptive simulation of port market concentration in a<br>Cournot competition with investment projects | Low Emission Engine Technologies for Future Tier 3 Legislations – Options and Case Studies                             | The Economics of Low Carbon Container Shipping   |
|                  | Koen De Winne   | Wik Christer   | Acciaro Michele  |
|                  | Enabling port efficiency by increased collaboration and information sharing                                     | Economic modelling and analysis of the management of dredged marine sediments – development of a decision support tool | Metaheuristics for possible upgrading from unimodal to intermodal transportation   |
|                  | Mikael Lind, Sandra Haraldson, Mathias Karlsson,<br>Richard T. Watson, Per-Erik Holmberg                        | Harrington Joe, Murphy, J., Coleman, M., Jordan, D., Tangney, S., Debuigne, T., Szacsuri, G.                           | Amir Hossein Tayebi, Mohammad Vaferi, Mohammad Saied   |
|                  | The role of Situational Awareness in Dynamic Port Operations: A Simulation Gaming Approach                      |  | Geography of Port Choice: Evidence form European Trade Flows   |
|                  | Kurapati Shalini  |  | Kashiha Mona   |
| 16.30hrs         | Closing + reception   |  |  |