EQUITABLE MARITIME CONSULTING (EMC)

TECHNICAL, ECONOMIC, AND FINANCIAL EXPERTISE IN THE PORTS, MARITIME AND LOGISTICS SECTORS.

Profile

EMC is an independent advisory company specialized in providing strategic, tactical, and operational advices based on evidences and advanced quantitative analysis in the freight and maritime transport sector. It draws upon extensive experiences and specialized skills of our experts in the field of maritime transport and logistics. We use the state-of-the art analytical methods developed through a comprehensive research process with strict quality control through publications in top peer-reviewed journals.

EMC is committed to support fair, and equitable outcomes of policy negotiations and business strategies using its specialized and extensive knowledge base in the freight transport industry. The political autonomy of EMC guarantees trustworthy, reliable, and neutral results for our clients. EMC has an excellent dedication to transparency in each of its business process, acknowledging potential caveats and limitations of each methodology we deploy.

Services

1. Modeling and analysis

We provide a wide spectrum of modeling and quantitative analysis to provide evidence based valuable for decision making in transport and logistics sector. Our modeling capacity has been deployed to support planning, feasibility analysis, strategy development, and policy making. We are specialized in the prediction of future freight transport flows across main modes of transport (air, maritime, road and rail) and their economic and environmental implications.

A special focus of our expertise and experience has been in the sustainable and green transport domain. In particular, we are specialized in assessing the impacts of policy measures on Green House Gas (GHG) emissions from the freight transport sector at different geographical scales: country, region, and global scales. Expert knowledge and advanced quantitative models are deployed to investigate strategic scenarios and to derive comprehensive policy recommendations. Furthermore, we also provide analysis on cost-effective strategies to reduce GHG emissions and to design green and efficient supply chain networks for public and private stakeholders.

2. Strategic policy advises for governments

We provide advice and recommendations as input for government policy actions based on available evidence, and advanced quantitative analysis. Drawing upon extensive case studies and experience in addressing policy issues in different countries, our expertise will be able to provide valuable insights and lessons learned for the design of government policies in freight and maritime transport.

3. Business optimization and feasibility analysis for private sectors
We provide market intelligence to analyze the economic feasibility of infrastructure projects or business in logistics and shipping. Our rich datasets and extensive knowledge base on global freight transport market will be able to deliver strategic insights particularly on the economic potentials of a business in shipping and logistics as well the most effective ways to set up the business from financial, technical, and institutional perspectives.

4. Advocacy support in respond to climate change policies and regulations
We provide advice and support to companies and governments in expressing their views in policy discussions at international forum such as International Maritime Organization's Marine Environment Protection Committee (MEPC), Conference of the Parties (COP), which form the input for regulations, and policies for international freight transport.

5. Training and seminars
We have designed and delivered over 5 professional development and training courses targeted at industry professionals, and government officials across the ports, maritime and transport logistics sectors. We have formulated and carried out various institutional building and capacity development programmes across the ports, maritime and logistics industry. Through our close link to technical universities, we have been supervising master and PhD student graduates in conducting their research as part of their graduation project.

6. Research
We undertake research work to investigate timely and topical issues of direct relevance to industry and policy makers. We have published widely in peer-reviewed scientific journals and we serve as reviewers for various journals such as Sustainability, The European Journal of Transport and Infrastructure Research (EJTIR), Nature Energy, Transportation Reviews, Case Studies on Transport Policy.

Types of projects
1. Market potential analysis for infrastructure projects and transport services such as port, road, railways, waterways, and shipping services.
2. Economic assessment on the impact of global transport policies and regulations on economic performances of a country/region or private business entity.
3. Development of strategies to comply with national/global transport regulations in the most efficient ways for private companies and governments.
4. Development of design for supply chain and logistics network of individual companies.
5. Assessment on the pathways to reduce green house gas emissions from shipping for companies/countries
6. Development of a decision support system to predict future freight transport volume in a region or a company's supply chain network.

Example of projects undertaken:
1. The World Bank (2019)
The World Bank report: "Understanding the Economic Impacts of Greenhouse Gas Mitigation Policies on Shipping : What Is the State of the Art of Current Modeling Approaches?"

Link to the report:
http://documents.worldbank.org/curated/en/215561546957017567/Understanding-the-Economic-Impacts-of-Greenhouse-Gas-Mitigation-Policies-on-Shipping-What-Is-the-State-of-the-Art-of-Current-Modeling-Approaches

2. **The World Bank (2019)**
The World Bank Outlook 2050 Strategic Directions Note : Supporting Countries to Meet Long-Term Goals of Decarbonization.
Link to the report:
https://openknowledge.worldbank.org/handle/10986/33958

3. **The United Kingdom Department for Transport (2020) –in partnership with Frontier Economics and University Maritime Advisory Services (UMAS)**
Potential impacts on States of Market-based measures for the abatement of international maritime transport emissions: A Methodology Report prepared for the Department for Transport.

4. **Asian Development Bank (2016)**
TA 8215-INO: Supporting Inclusive Growth through Better Connectivity
https://www.adb.org/projects/46093-001/main#project-pds
Providing an in-depth technical assistance for the design of national Sea-tollway program that connects 24 major ports across Indonesia. Specifically, we analyze shipping network structures that can minimize total logistics costs and maximize domestic connectivity under different future transport demand scenarios. The results of the analysis constitute policy recommendations to the minister of transport to help increasing national maritime connectivity.

5. **Asian Development Bank (2014)**
TA8045-INO: Improving Domestic Connectivity
https://www.adb.org/projects/documents/ino-45149-001-tcr
Providing technical assistances and policy recommendations to the Ministry of Transport and the Ministry of National Development and Planning (BAPPENAS) for the development of a hub port in the eastern Indonesia region. Analyzing the potential of port of Bitung and port of Sorong in attracting international cargo flows and improving the connectivity between eastern and western part of Indonesia.

Ongoing projects:
1. **European Commission, Directorate-General for Climate Action [2019-2020]**
Study on Assessment of Possible Global Regulatory Measures to reduce Greenhouse Gas Emissions from International Shipping (https://ec.europa.eu/clima/tenders/2018/258517_en)

2. **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) [2019-2020]**
TRANSfer III: Facilitating the development of ambitious transport mitigation measures (https://www.changing-transport.org/draft-concepts-for-climate-friendly-freight-transport-in-indonesia/)
   - Technical Design Study of Action Programme on Intermodal Freight Transport on Java, Indonesia
   - Impact Assessment of Action Program for Intermodal Rail Freight on Java, Indonesia

3. **World Bank in collaboration with UNCTAD (the United Nations Conference on Trade and Development) [2019-2020]**

The establishment of a global international transport costs database. The database compiles transport costs broken down into 4 major modes (air, maritime, road, rail) based on customs registration from countries worldwide that are submitted to the UN COMTRADE database.

This is the first global transport cost database that provides transport costs for more than 119 countries across 4 major modes (air, maritime, road, and rail) for 5000+ commodity groups defined at (Harmonized System) HS-6 digit classification. We estimate and impute missing information using advance transport modeling approach. The database is going to be launched on 10th December 2020 at the IMO's Technical Cooperation Committee

List of selected publications

- Verhaeghe, **R., Halim**, R.A., Tavasszy, L.A. (2020). Re-Designing the Maritime Transport Network. In *Freight Transport Modeling in Emerging Countries* (1st Edition). London: Elsevier.
- **Halim, R.** et al, 2019. Understanding the Economic Impacts of Greenhouse Gas Mitigation Policies on Shipping — What Is the State of the Art of Current Modeling Approaches? Washington, DC: World Bank. http://documents.worldbank.org/curated/en/215561546957017567/
- **Halim, R.**; Kirstein, L.; Merk, O.; Martinez, L. Decarbonization pathways for international maritime transport: A model-based policy impact assessment. *Sustainability* **2018**, 10, 2243.
- **Halim, R.A.**, et al. (2017). "International freight", in *ITF Transport Outlook 2017*, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789282108000-6-en
- **Halim, R.A.**; Kwakkel, J.H.; Tavasszy, L.A. A strategic model of port-hinterland freight distribution networks. *Transportation Research Part E: Logistics and Transportation Review* **2016**, 95, 368-384.
- **Halim, R.A.**; Kwakkel, J.H.; Tavasszy, L.A. A scenario discovery study of the impact of uncertainties in the global container transport system on european ports. *Futures* **2016**, 81, 148-160
- **Halim, R.A.**, Tavasszy, L. A., & Kwakkel, J. H, (2015): Impact of the Emergence of Direct Shipping Lines on Port Flows. Routledge.
- **Halim, R. A.**, Seck, M., Diouf, & Tavasszy, L. A. (2012). Modeling the global freight transportation system: A multi-level modeling perspective. Paper presented at the Proceedings of the 44th Conference on Winter Simulation.
- **Halim, R. A.**, & Seck, M. D. (2011). *the Simulation-based Multi-objective Evolutionary Optimization (SIMEON) framework*. Paper presented at the Proceedings of the 43th Conference on Winter Simulation.