

SEVENTH FRAMEWORK PROGRAMME

SST-2007-TREN-1 - SST.2007.2.2.4. Maritime and logistics co-ordination platform

SKEMA Coordination Action

“Sustainable Knowledge Platform for the European Maritime and Logistics Industry”



**Deliverable: D1.1.1 – SKEMA Subject Index**

**WP No 1 – SKEMA Knowledge Base**

**Task 1.1- Maritime Transport and Logistics Domain Specification**

**Task 1.1.1 – SKEMA Subject Index**

**Responsible Partner: ILS**

**Contributing Partners: NECL**

**WP Leader: INLECOM Systems**

**Planned Submission Date: 16<sup>th</sup> September 2008**

**Actual Submission Date: 29<sup>th</sup> September 2008**

**Distribution Group: Consortium**

**Dissemination Level: PU (Public)**

**Contract No. 218565**

**Project Start Date: 16<sup>th</sup> June 2008**

**End Date: 15<sup>th</sup> May 2011**

**Co-ordinator: Athens University of Economics and Business**

### Document summary information

Version	Authors	Description	Date
0.1	T. Katsoulakos –ILS	Review Subject Index - Down	25/07/08
.2	G Trant - NECL	Improvement suggestions	12/09/08
1.0	T Katsoulakos, T Tait -ILS	Revised Index following review of Study Specifications	28/09/08
1.1	T Tait-ILS	Update	30/01/09

### Quality Control

	Who	Date
<b>Checked by Task and WP Leader</b>	G Trant	28/09/08
<b>Checked by Peer Review</b>	Johan Woxenius	
<b>Checked by Quality Manager</b>	Antti Permala	
<b>Approved by Project Manager</b>	Takis Katsoulakos	29/09/08

### Disclaimer

The content of the publication herein is the sole responsibility of the publishers and it does not necessarily represent the views expressed by the European Commission or its services.

While the information contained in the documents is believed to be accurate, the authors(s) or any other participant in the SKEMA consortium make no warranty of any kind with regard to this material. Neither the SKEMA Consortium nor any of its members, their officers, employees or agents shall be responsible or liable for negligence or in respect of any inaccuracy or omission, or for any direct or indirect or consequential loss or damage caused by or arising from any information herein.

## Contents

SKEMA Subject Index Overview .....	4
Background .....	4
Document use.....	5
The SKEMA Subject Index in the context of the Knowledge Base .....	5
The SKEMA Subject Index .....	7
Economic Analysis - European Transport Market.....	<b>Error! Bookmark not defined.</b>
Regulatory and Policy Framework .....	<b>Error! Bookmark not defined.</b>
Maritime Transport and Logistics Developments.....	<b>Error! Bookmark not defined.</b>
Safety Security and Sustainability Capabilities .....	<b>Error! Bookmark not defined.</b>
Technology Forecasting and Assessment .....	<b>Error! Bookmark not defined.</b>
Quality Criteria and Performance Indicators .....	<b>Error! Bookmark not defined.</b>
SKEMA Subject Index Development.....	9

## SKEMA Subject Index Overview

### Background

The SKEMA Consolidation Studies are aimed at providing a *complete* view of the maritime transport and logistics domain, based on the Mid-term review challenges (Mid-term review of the 2001 Transport White Paper "Keep Europe Moving", 22/06/2006, [http://ec.europa.eu/transport/transport\\_policy\\_review/index\\_en.htm](http://ec.europa.eu/transport/transport_policy_review/index_en.htm)).

An overview of the initial mapping of the Consolidation Studies on the mid-term review challenges is given in the following table.

Mid-Term review Challenges	Consolidation Studies	Subdivisions of the Consolidation studies
Strengthening competitiveness; improved efficiency and quality of maritime services and improved regulatory conditions. Increased mobility "without" negative effects including improved accessibility to remote European regions	Economic - Regulatory - Policy Analysis	<ul style="list-style-type: none"> <li>• Review of trade and transport models and related databases</li> <li>• Modal-Split Models</li> <li>• Effects of economic growth or decline on interregional trade and maritime services</li> <li>• Practices, trends and fiscal implications of financing transport resources</li> <li>• Comparative analysis of regulatory regimes for different modes- safety, security, customs control</li> <li>• National variations on legal issues regarding trade, logistics and intermodal transport</li> <li>• EU Transport Policy Analysis</li> </ul>
Encouraging co-modality and optimum integration of maritime services into logistic chains.	Maritime Transport and Logistics	<ul style="list-style-type: none"> <li>• Dominant trends in logistics and supply chain management</li> <li>• Maritime transport trends</li> <li>• Advanced Intermodal Freight Transport Solutions</li> <li>• E-Maritime conceptual framework and potential impact on EU Transport policy objectives</li> <li>• Design of improved D2D networks</li> <li>• Review of Quality Criteria and Performance Indicators facilitating benchmarking of the performance of maritime transport services</li> <li>• Method for establishing and maintaining operational standards for D2D Services.</li> </ul>

Safety and security for passengers and citizens as well as for freight Decongestion and reduction of emissions to provide “Green” freight corridors;	Safety Security and Sustainability Solutions	<ul style="list-style-type: none"> <li>• European capabilities for safety and security support;</li> <li>• Methods for assessing safety and security performance;</li> <li>• Sustainability performance of maritime transport and logistics operations and improvement strategies</li> </ul>
Maintaining a leading position in transport technologies	Technology Forecasting and Assessment	<ul style="list-style-type: none"> <li>• Ship technologies</li> <li>• Port technologies</li> <li>• Technologies deployed to improve visibility within supply chains</li> <li>• D2D integration technologies</li> <li>• Co-modal Transport 2030–Major challenges and opportunities</li> </ul>

The SKEMA Subject Index is essentially the contents list of the Consolidation Studies which are subdivided into the following four Subject Areas:

1. Economics and Regulation
2. Maritime Transport and Logistics Developments
3. Safety Security and Sustainability Capabilities
4. Technology Forecasting and Assessment

### Document use

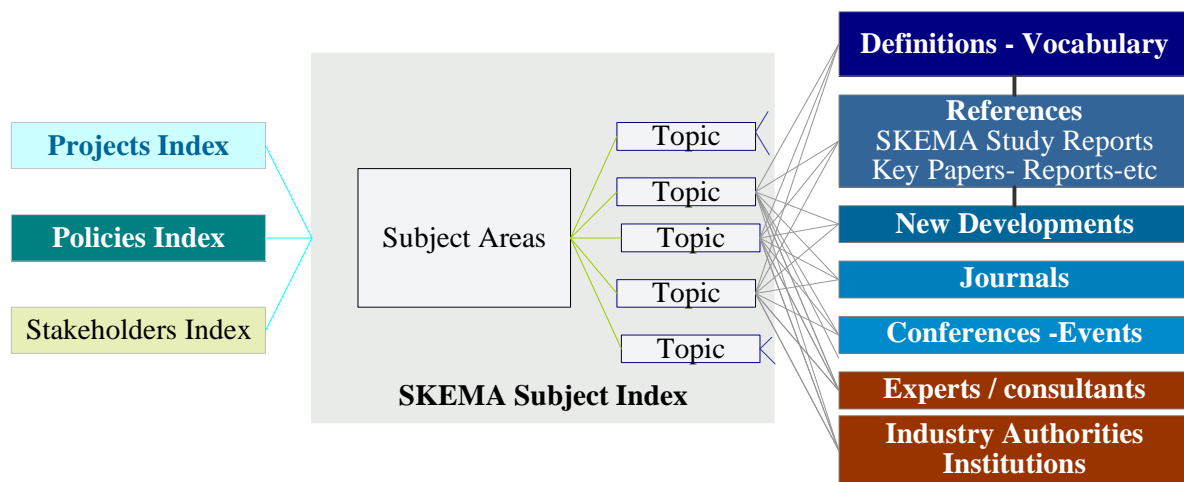
This document is part of Deliverable D1.1 Maritime Transport and Logistics Domain Specification. As such the main use of the document is to inform interested parties what are the topics to be addressed by the SKEMA Consolidation Studies.

It could be of particular interest to EU and national project managers to identify potential source of information on specific topics or potential dissemination channels for outputs that could be mapped to the topics of the Index.

### The SKEMA Subject Index in the context of the Knowledge Base

The SKEMA Subject Index provides a tree structure for decomposing the six subject areas mentioned earlier to lower level study elements each of which could be further subdivided as many times as needed. This will facilitate additional highly specialised studies to be undertaken in a structured way during the project and beyond.

Each element of the Subject Index will be linked to a SKEMA Study report as well as relevant project reports, publications, policies, experts, etc. The approach described in the following diagram represents how information will be organised in the SKEMA knowledge base. The overriding goal is to enable users find easily all the interrelated information for a specific topic, a specific policy, a specific project or even their specific role.



As indicated in the above diagram the project is establishing:

1. A Project Index to classify relevant EU and national projects
2. A Policies Index to classify EU Maritime Policies
3. A Stakeholders Index to classify the main roles of key stakeholders in maritime transport

Using the above structure for any topic in the Subject Index a user will be able to access SKEMA Studies, other references as well as relevant projects or relevant policies. In a similar way a user interested in a specific policy would be able to access information on related topics and related projects.

A user with a specific role, say port operations manager, will be able to filter all information affecting his day to day tasks.

## The SKEMA Subject Index

Update 30/01/09

<b>SE1 Economics &amp; Regulation</b>	
<b>SE1.1</b>	<b>Trade and transport models</b>
SE1.1.1	Practicalities in using the ETIS-BASE
SE1.1.2	Trade and Transport flows forecasts and growth potential for water-freight transport
SE1.1.3	Case Study: Estimation of trade flows: The case of Greece - Spain Flow
<b>SE1.2</b>	<b>Modelling Intermodal Transport Services</b>
SE1.2.1	Key influencing factors in the historic evolution of freight transport
SE1.2.2	Sensitivities of Intermodal Transport to Key Variables
SE1.2.3	Review of NEAC mode- split model / database
SE1.2.4	Case Study
<b>SE1.3</b>	<b>Relationships between interregional trade, economic growth and maritime services</b>
SE1.3.1	Overview of EU economic growth
SE1.3.2	Microeconomic risks; quantification of risks on transport operations and consequences
SE1.3.3	Case study
<b>SE1.4</b>	<b>Practices, trends and fiscal implications of publicly financing transport services and infrastructure</b>
<b>SE1.5</b>	<b>Maritime Governance</b>
<b>SE1.6</b>	<b>Regulatory Framework for Maritime and Intermodal Transport</b>
SE1.6.1	Evolution of European Competition Policy Regulations for the Maritime Sector
SE1.6.2	Review of 'monitoring' Directive 2002/59/EC and associated initiatives
SE1.6.3	Interaction of international and national legislation for shipping safety and security
SE1.6.4	National variations on legal issues regarding trade, logistics and intermodal transport
<b>SE1.7</b>	<b>EU Transport Policy Analysis: strengths and weaknesses</b>

<b>SE2 Maritime Transport and Logistics Developments</b>	
<b>SE2.1</b>	<b>Dominant trends in logistics and supply chain management</b>
SE2.1.1	Review of well known logistics concepts adopted during the last decade
SE2.1.2	Guidelines for selecting strategically important logistic concepts
SE2.1.3	Supply chain integration and intelligent logistics - solutions and benefits
SE2.1.4	Case Studies
<b>SE2.2</b>	<b>Maritime transport human resources and education &amp; training</b>
SE2.2.1	Study on European Seafarers
SE2.2.2	Education and training in the maritime sector
SE2.2.3	Port related training practices
<b>SE2.3</b>	<b>Maritime and intermodal transport developments</b>
SE2.3.1	European Short Sea Shipping developments
SE2.3.2	Ports organisational and infrastructure strategies
SE2.3.3	Standardisation of cargo units
SE2.3.4	The EU e-Maritime initiative
SE2.3.5	The 'European Common Maritime Space' initiative

SE2.3.6	Developments from the European Motorways of the Sea programme
SE2.3.7	Case studies
<b>SE2.4</b>	<b>Design of improved D2D networks</b>
SE2.4.1	The Needs of Shippers & Logistics Operators re. Maritime Services in Intermodal Chains
SE2.4.2	Sensitivities of financial performance to demand variations and cost escalations
<b>SE2.5</b>	<b>Review of Quality Criteria and Performance Indicators</b>
<b>SE2.6</b>	<b>Management of Intermodal Networks</b>

<b>SE3</b>	<b>Safety Security and Sustainability Capabilities</b>
<b>SE3.1</b>	<b>European capabilities for safety and security</b>
SE3.1.1	Maritime Operational Services (MOS)
SE3.1.2	Maritime Information Management (MIM)
SE3.1.3	Organisational restructuring requirements
SE3.1.4	Practicalities of using SSN and safety / security support systems in Latvia
<b>SE3.2</b>	<b>Methods for assessing safety and security performance</b>
SE3.2.1	Review of collision and grounding risk analysis methods
SE3.2.2	Evaluation of methods to estimate the consequence costs of an oil spill
SE3.2.3	Dynamic risk management methods – ship risk indexes
SE3.2.4	Case Studies
<b>SE3.3</b>	<b>Sustainable Transport</b>
SE3.3.1	Methods for calculating externalities
SE3.3.2	Emission trading schemes
SE3.3.3	Sustainability Perspectives on Marketing Maritime and Co-modal transport services
SE3.3.4	Corporate responsibility practices in a Ship & Logistics Operator -Acciona
SE3.3.5	Corporate responsibility practices in the Ports -Dublin case study

<b>SE4</b>	<b>Technology Forecasting and Assessment</b>
<b>SE4.1</b>	<b>Ship and fleet management technologies</b>
SE4.1.1	Navigation systems and e-navigation
SE4.1.2	Integrated fleet management ICT systems
SE4.1.3	Environmental technologies
SE4.1.4	Case studies
<b>SE4.2</b>	<b>Port technologies</b>
SE4.2.1	Cargo Handling advances and new Facilities
SE4.2.2	Port Community Systems.
SE4.2.3	Safety and security support systems
SE4.2.4	Case Studies
<b>SE4.3</b>	<b>Technologies deployed to improve visibility and risk management in supply chains</b>
SE4.3.1	Overview of automated identification technologies – advantages and selection criteria
SE4.3.2	Drivers for the deployment of RFID (technological and cost advancements)
SE4.3.3	Sensor technology combined RFID to monitor shipments and transport units
SE4.3.4	Practical examples and experiences of visibility systems deployments
<b>SE4.4</b>	<b>ICT developments for Integrated D2D freight transport services</b>
SE4.4.1	Single European Transport Document
SE4.4.2	Standardisation of D2D stakeholder information exchange messages
SE4.4.3	Service Reliability Control Centres monitoring electronically transported cargoes
<b>SE4.5</b>	<b>Co-modal Transport 2030–Major challenges and opportunities</b>

## **SKEMA Subject Index Development**

The SKEMA Subject Index presented in the previous section represents a classification of the maritime transport and logistics domain. Care has been taken to produce a holistic approach and to establish a coherent view of maritime transport from legal, policy, market, business and technology perspectives.

The SKEMA Subject Index will be continuously refined and extended based on the output from the SKEMA Studies, the thematic network activities and the development of the SKEMA Knowledge Platform.