SKEMA Project Objectives

The SKEMA objectives are:

1 **Produce the SKEMA Knowledge Base** to enhance the European knowledge capability in addressing the key maritime transport challenges as specified in Mid-term Review of the EU' 2001 Transport White Paper and the Blue Book Action Plan specifically the action for collective learning – exchange of best practice.

Specific activities will include:

a. Produce a *Maritime Transport and Logistics Domain Specification* to establish a structured framework for the Knowledge Base and the Consolidation Studies including:

 i. *a Subject Index* categorising the broad set of topics to be to be addressed by the project *and a vocabulary* for key terms and concepts

 ii. a *Policy Knowledge Map* linking DGTREN maritime transport policies and related actions to Subject Index

 iii. a set of *Role - Decisions - Information Models* for the SKEMA stakeholders (utilising the MarNIS and Freightwise architectures) determining the stakeholder decisions for which the topics specified in the subject index will be used

 iv. *a directory of key projects(initial list in Annex 1) , references* and *information sources* that will be closely monitored and used as information inputs in the SKEMA Knowledge Platform. Information sources will include academic journals, media/professional magazines, books, international organisations, education and training institutions, consultants, statistics and market information sources and industry events

 v. detailed specification of the Consolidation Studies and project *success criteria*, with due consultations with Commission officers.

b. Develop a *knowledge base system* to provide a digital library for past, ongoing and future DGTREN project outputs and to support the Studies and Thematic Network activities. Specific activities will include:

 i. Produce *design of the SKEMA Knowledge Base System and DB specification* in line with the *Domain Specification from 1a;*

 ii. Design of knowledge dissemination and acquisition interfaces for the different categories of stakeholders to facilitate browsing, searching and participating in relevant forums; also for submitting comments or reports in the subject areas addressed by SKEMA;

iii. Set up multidimensional models for building cubes of aggregated data that may simplify appropriate analysis, according to best practices of business intelligence techniques and multidimensional data analysis;.

iv. Produce version 1 system including a users' guide

v. Monitor and support use and analyse user feedback and evaluation results to develop version 2.

c. Provide Project Intranet and Information Observatory Services including:

i. project website - content management -intranet to support all project participants as well as registered user members (acquisition of specific experiences and requirements of practitioners in the field –acquisition of reports and papers from experts and researchers);.

ii. automatic scanning and collection of information from pre-selected websites.

2 **Undertake consolidation studies** to establish an authoritative review of the European Maritime Transport and Logistics market, key business strategies, practices and technologies (covering the topics in the SKEMA Subject Index and highlighting recent advances produced by DGTREN projects). Each consolidation study will assess the policy instruments that are relevant to its investigations and will make recommendations that will contribute to integration of maritime transport policy.

The consolidation studies will concentrate on:

a. *Economic and Regulatory Analysis* focusing on usage trends and differential quality of service attributes for the various modes of transport, as well as sensitivity analysis based on potential changes in market and technological variables; also, the various regulations affecting the industry (e.g. customs procedures and customs practice for short sea shipping, maritime safety, environmental protection, Health & Safety at work in ports and on ships in ports, security of goods in ports and in transit, Port State Control etc).

b. *Maritime Transport and Logistics* with specific focus on operational integration of maritime services into logistic chains; bottlenecks and their solutions; efficient tracking of cargo with special attention to integration of RFID-based devices[1] in operational processes;

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[1] Radio-frequency identification (RFID) is an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders.

simplification of administration requirement for intermodal chains - European maritime transport space without barriers[2].

c.   *Safety, Security and Sustainability of EU maritime transport and supply chains* with particular reference to EU and National Single Windows for statutory reporting, surveillance developments and risk management.

d.   *Technology Forecasting and Assessment* in the context of improved safety, security, traffic de-congestion, environmental sustainability and transportation efficiency with respect to each element of the transportation chain (ship, port, logistics) and the integrated perspective of D2D services, focusing on e-maritime and e-logistics developments.

e.   *Service Performance Indicators* with specific reference to indicators for short sea shipping produced by the European Shippers Council, MOSES deliverables on Quality criteria and KPIS for MoS, similar approaches in the air and train freight industries; also recently commissioned studies on logistics benchmarking (FP7 -1).

3   **Provide a flexible adaptive capability for undertaking Periodic Studies** in response to short term requirements and changing policy imperatives over the life of the project. A preliminary List of Periodic Studies for the first year identified by DGTREN is given in Annex 3. Each subsequent List of Periodic Studies for years 2 and 3 will be agreed three months before the end of the previous year (see also 2.1.3). Periodic studies could take the form of analytical investigations, empirical surveys, architectures, specifications, or methodologies.

4   **Develop and Operate a Thematic Network** to facilitate co-operation between education and research organisations, state agencies, operational and end-user participants in intermodal transport, including the following activities:

a.   *Building the SKEMA Network of Experts and Practitioners* from the initial team of project participants through direct recruitments of experts for the periodic studies, and by utilising dissemination activities to engage a growing number of maritime and logistics professionals in using the SKEMA knowledge platform and contributing to its development.

b.   *Establish a European Maritime Transport Monitor* to provide a dynamic state-of-the-art capability for the maritime and logistics industry. Essentially all partners will be assigned specific responsibilities to monitor developments in each area included in the Subject Index (projects, conferences, publications, news) and input 'hot topics' and select / adapt

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[2] a vessel which obtains clearance in an European port will not be re-checked again in the next port when proof can be provided that the vessels didn't stop and did not take any cargo from another vessel. In the recent Green Paper on a Future Maritime Policy for the Union, the Commission launched a wider debate on a "Common European Maritime Space" where both the ship's journey and goods could be reliably and securely tracked all the way along, thereby decreasing the need for individual controls in purely intra-Community trade

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relevant material for inclusion in the SKEMA Knowledge Platform. The Monitor team of expert reviewers will assess on a weakly basis material collected by the Observatory services including experiences and requirements of practitioners in the field.

c. *Implement a programme of biannual stakeholder workshops* with a central purpose of dialectic advancement of knowledge and experience in the development of the European maritime and logistics industry, with each workshop focussing on particular subject areas from the Studies and organised with a common structure and approach.

d. *Develop case studies and set out a user audit trail from the commencement of the project* to act as references for the Studies and to provide demonstrators to illustrate their different themes and findings and to be used to evaluate their feasibility and benefits.

e. SKEMA will undertake *Short Assignments on behalf of the Commission* following request specifying expertise, the man-days and the period required with two month's notice

f. *Design and implement a* dissemination *programme* to maximise the potential impact of the project results including an annual conference, the SKEMA book, a monthly bulletin and articles / papers in conferences all supported by a highly interactive project website.

g. Provide *annual policy recommendations reports*, synthesising the policy issues and recommendations deduced by each study and the suggestions / feedback / influence trends produced by the workshops and the other thematic network activities.

Further the intention is that the SKEMA Knowledge Base will be constantly expanded by its users, thus providing a sustainable contribution to the Work Programme goals.