SHORT SUMMARY OF THE PARTNERS’ SWOT ANALYSIS

PROJECT LOSAMEDCHEM: LOGISTICS AND SAFETY OF CHEMICAL PRODUCTS IN THE MEDITERRANEAN AREA

1. PREFACE

The Mediterranean basin has grown in the last 20 years to become one of the world crucial traffic areas: the globalization of commercial relations, especially with Far- and Middle East have promoted the maritime transport of both finished goods and raw materials.

Nevertheless, the competitiveness of the Mediterranean regional countries, and in particular of the harbors, have lagged in their development, when compared with the equivalent structure in North Europe.

Another negative issue characterizing the Mediterranean regions is the growing unbalance between road transportation and other transport modalities: rail is losing percentage of traffic, and intermodality is painfully trying to advance: yet results are very modest.

Furthermore, chemical industry is affected by deficits in the development of chemical clusters, one of the major reasons being the insufficient level reached by transport infrastructure.

There is a lot to do in terms of harmonization among different regions in the fields of transport regulations and laws across Europe and the coordination of transport related decision is still insufficient.

Also the conceptual development of technologies for the transportation of goods using different transport media is very limited, and cargo traffic has always lower priority when compared to passenger traffic, particularly when rail modality is examined.
Finally, especially among harbors, there is no trend toward a significant cooperation, but instead local competition prevents collective approach to share improvements, both technical and organizational, so increasing the efficiency gap between North and South Europe.

Transnational cooperation is vital for achieving improved logistics, which means reducing costs, offering better reliability and flexibility and enhancing safety, what is of utmost importance when dangerous goods (about 1/3 of the whole chemical production) are involved.

Chemistry, on the other hand, is one of the most globalized industrial branches, and logistic plays a fundamental role in its expansion.

In order to react to these critical aspects, it is necessary to initiate an international cooperation process, bringing together, in a broad partnership, different Mediterranean countries, with their relevant stakeholders, and starting a common project, where analysis of the current situation is the first step.

Then, promoting the transnational transfer of know-how and good practices, and taking into account the most significant results of the analytical phase, the Partners will produce some feasibility studies, tackling issues that constitute the most critical logistic aspects and defining transnational projects, with the target of individuating common solutions for common needs.

Last step will be the definition of a joint strategic plan, supported by Partners from the different countries, in order to ensure a continuation of the logistic proposed solutions agreed upon, and to share a cooperative vision of future infrastructural interventions and a coordinated program of their implementation.

2. MAIN PROJECT TARGETS
Taking into account the considerations contained in the previous chapter, main objectives of the LOSAMEDCHEM project are:
1. promoting the cooperation among the chemical districts in the Mediterranean area, and between them and the main harbor areas, in order to enhance the competitiveness of the Mediterranean chemical industry

2. improving the integration between harbors and their hinterland, sustaining as much as possible the intermodal transportation, and facilitating the shift of freight traffic from road to rail and waterways

3. increasing the overall efficiency of the chemical logistics in the Mediterranean basin, also thanks to the dissemination of the Best Practices

4. reducing the environmental pollution and increasing safety in the transportation of chemical goods and especially of dangerous materials

5. supporting the harmonization of the different traffic regulations/norms that are currently in vigor in the Mediterranean countries/regions.

3. PROJECT PARTNERS

Partners of different Mediterranean regions participate in this project, ensuring a good implementation of project activities and a global vision of the current status of the chemical industry and chemical logistics in this area.

- Lead Partner is Novara Province
- Other partners are:
  - FEPORTS - Port Institute for Studies and Cooperation of the Valencian Region
  - The Catalanian Chamber of Commerce
  - The Port Authority of Genova
  - The Port authority of Trieste
  - The Port Authority of Koper
  - The University of Maribor
- The Thessaloniki Chamber of Commerce and Industry
- The Local Councils’ Association of Malta

- The scientific coordination of the LOSAMEDCHEM project is responsibility of Sviluppo Chimica (Milan), the operational project arm of Federchimica (Federation of Chemical Industries).

Altogether, the Partners are committed to establish a deep and intensive cooperation to improve the current conditions for chemical industry and especially for chemical logistics, and provide examples and suggestions for suitable actions in the near future.

Relevant Stakeholders, in particular chemical companies and logistic service providers, are also key actors in this project.

4. PROJECT ACTIVITIES AND TIMING

The LOSAMEDCHEM project has been approved in April 2010, and its development will last from June, 1\textsuperscript{st}, 2010 until May, 31\textsuperscript{st}, 2013.

The project overall budget is about 1.6 Mio Euros.

Project activities encompass 5 Work-packages:

- Work-package 1 corresponds to Project Management
- Work-package 2 includes all dissemination activities that will be provided during the entire project development
- Work-package 3 will focus in the first year on the analysis of the current situation and on the identification of the most critical areas/urgent interventions, and also of the existing Best Practices
- Work-package 4 is devoted to the preparation of investments, and will concentrate on the implementation of feasibility studies for infrastructural projects of transnational significance
The Work-package 5 will finally focus on the strategy development for guaranteeing future continuation of the main project outputs and the mainstreaming activities.

5. SWOT ANALYSIS – STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

The SWOT Analysis, together with the individuation of the Best Practices, is the major output of the Work-package 3, and it constitutes the main input for the subsequent Work-packages.

The main objectives of the Work-package 3 are carrying on thorough analysis of the current situation of the chemical industry and chemical logistics in each Partner’s region as well as identifying strengths, weaknesses, opportunities and threats, following a standardized model, distributed to all Partners immediately after the Kick-off meeting, and coherent with the SWOT concepts, according to which strengths and weaknesses are understood as “internal” factors, which can be directly influenced by the companies, while opportunities and threats are “external” factors, which cannot be directly influenced by the companies themselves.

To better envisage facts and trends about global situations, external chances and risks, the project Partners are supported by Regional Stakeholders meetings used as Expert Workshops.

Furthermore, experts were asked about improvement possibilities and identification of Best Practice examples.

6. SWOT ANALYSIS STRUCTURE AND TIME SCHEDULE

Each partners has to supply a SWOT analysis document, the structure of which, as already mentioned, will follow a standardized model.

Each study includes a short overview of the Partner’s region, of the local chemical industry and of the logistic and
transportation infrastructure, accompanied by the most significant traffic data.

In particular, the regional SWOT analysis, including the results of the expert interviews and workshops, is aimed at providing details of emerged needs and measures required for future actions and improvements.

STRENGTHS AND WEAKNESSES OF THE CHEMICAL INDUSTRY AND CHEMICAL LOGISTICS IN THE MEDITERRANEAN AREA

2.1 STRENGTHS AND WEAKNESSES IN PROCUREMENT

2.1.1 Procurement lead time for raw materials and intermediates

The suppliers of raw materials are located globally, but the source of hydrocarbons is mainly located in Middle East and North Africa.

This situation privileges naturally maritime transportation and allow good forecasts for supply delivery.

Generally, Partners and their Stakeholders evaluate as their strength the lead time conditions for deliveries of raw materials and intermediates.

The general procurement policy is to maintain 2 or more suppliers for goods with critical availability. For non-critical products procurement is depending on price and, sometimes, on lead time, especially when storage capacities are limited.

2.1.2 Relations with suppliers

Most Partners consider cooperation with suppliers a necessity, especially when plans are made, and planning collaboration is evaluated as a crucial issue.

The cooperative aspect is mostly judged as a factor of strength.
Naturally, relying on a supply Partner needs a good and careful supplier’s assessment, especially for critical materials, an efficient communication channel and reliability of both products and packaging, when the latest is needed.

All these aspects were considered in a positive way, so cooperation with suppliers is qualified as one of the strengths.

The only debated point is related to the payment conditions, where strength and weakness are both present among Partners’ evaluations.

Many Stakeholders judge the solidity of their industrial tissue as a strong point.

2.2 STRENGTHS AND WEAKNESSES IN WAREHOUSING

Companies try to reach and keep an optimal inventory and safety stock level, and, under suitable conditions, operate with a just-in-time strategy.

They think that their efforts in this field are quite successful and therefore identify warehousing management as a strength.

Outsourcing policy is mostly considered neither a strength factor nor a weakness factor, as the majority of the companies have their own storage facilities or have consignment stocks with their suppliers: in this case the selection of qualified enterprises is mandatory, especially when dangerous goods are involved.

2.3 STRENGTHS AND WEAKNESSES IN PRODUCTION LOGISTICS

Good knowledge of their production processes and capability of taking advantage of their internal flexibility are generally recognized by Partners’ Stakeholders as strong points and constitute a competitive plus.
Moreover, production processes are increasingly supported by ITC tools, that allow production optimization and reduction of both idle times and scrap quantities.

Nevertheless, quite a few companies still think that production costs are too high.

2.4 STRENGTHS AND WEAKNESSES IN DISTRIBUTION AND TRANSPORT

Different products need specific requirements for distribution and transport, especially critical when dangerous goods (~ 1/3 of the whole chemical production) are handled.

However, distribution is normally perceived as a strength factor.

Only rail transportation gets a negative evaluation: interoperability among national rail systems very low, bureaucratic barriers, lack of quality of rolling stock, lack of terminal infrastructure for intermodal transport prevent companies from preferring railway to road, in spite of far higher safety of rail modality.

On the other hand, transportation costs, especially rail transportation costs, are in average considered high, and this is a factor limiting the competitiveness of the companies.

Critical areas are also highlighted in port activity: transshipment, load and unload times are too high, and ships must wait too long in the port area.

Especially negative is a comparison with the efficiency of the North Europe harbors, that many times obliges chemical companies, located in the Mediterranean area, to prefer them and to avoid Mediterranean ports.

Also connections with the harbor back-areas and with the hinterland often need a substantial improvement.

As already mentioned, sometimes suitable space for storage of chemical products, especially dangerous goods, is either insufficient or inadequate, nor short/medium term plans for its implementation exist.
Inland waterways are unfortunately almost not available in the Partners’ countries.

2.5 STRENGTHS AND WEAKNESSES IN PLANNING AND CONTROLLING

The current economical crisis has produced very negative impacts on accuracy and reliability in supply planning or sales forecasts, which are the basis for production planning.

Nevertheless, taking into account logistic processes related to major suppliers/final customers, Stakeholders’ answers are underlining their strength in these processes, strength that is coming also from very extensive use of ITC tools, that increase accuracy and flexibility in production and delivery planning.

Quality assurance procedures are a common asset where chemical products are managed/transported.

The only weakness point, for some Partners, is the management of very dangerous goods, as depicted in Chapter 1.10 of ADR book, that requires special attention and qualified personnel, not always available.

2.6 STRENGTHS AND WEAKNESSES IN SAFETY AND SECURITY

The European harmonization of the rules for transportation of dangerous goods (ADR, RID, ADM, IMDG) is a cornerstone for easier and transparent cargo traffic.

REACH/CLP is a further step in the appropriate management of chemical substances within the European Union.

In general, all Partners consider this situation a strength factor for them, even though there are claims that excessive regulation can threat the competitiveness of European chemical industry.

Furthermore, it is obvious that participating in Responsible Care program, as many companies do, is an issue that Partners consider a strength for them.
The only weak aspect is related to the control of vehicles transporting high dangerous goods, where fundamental tool is satellite telemetry, not yet broadly adopted.

2.7 STRENGTHS AND WEAKNESSES IN INFORMATION AND COMMUNICATION TECHNOLOGIES

All Partners underline that the adoption of ERP/MRP systems as tools for managing company processes are a strength factor, and almost all companies take advantage of them.

Supply chain tracing and controlling is becoming more and more diffuse, and tracking and tracing of cargo is not only important for the customers, but also as a tool for preventing misuse of dangerous goods. Nevertheless, some Partners would like to see a broader utilization of these technologies, as well as of EDI.

The still limited utilization of satellite information, which is essential for security scopes, is a weak and critical aspect.

2.8 STRENGTHS AND WEAKNESSES IN COMPANY LOGISTICS

Most Partners’ companies evaluate their internal logistic skills as high/very high, and this is obviously a strength point.

A problem that is peculiar to Italy is that most young people are currently hired with temporary contracts; additional problem is that initial wages are pretty low.

This combination of negative aspects is a significant threat for the stability of skilled staff for companies involved in the chemical area; and the situation is likely to remain not improved in the short/medium time.

OPPORTUNITIES AND THREATS OF THE CHEMICAL INDUSTRY AND CHEMICAL LOGISTICS IN THE MEDITERRANEAN AREA
3.1 ECONOMIC TRENDS

The present economic crisis endangers most chemical and logistic companies, and especially small/medium sized enterprises are highly challenged by the current economic situation and even have difficulty to survive.

Nevertheless, market signals are finally not only negative and evaluations produced by Partners and Stakeholders are partially positive, because both market internationalization and third world regional economic development are regarded as a chance and not as a threat.

Some Partners, instead, judge as a threat the increased global competition, especially because production processes of chemical goods in the emerging countries are reaching very high technical levels, and also because countries with significant raw material assets are becoming strong competitors in the commodity market (e.g. Saudi Arabia in the petrochemical products sector).

On the other side, stronger competition may represent a growth opportunity and an impulse for technological advance, at a regional level, and the same effect can be produced by the trend to re-locate production sites in countries with lower labor costs.

Generally speaking, representatives of the chemical industry evaluate that intensified competition and, as a consequence, higher cost pressure, are both seen as an opportunity and as a threat.

The current turbulent international context (especially in the Northern African area and in the Middle East) may represent a serious threat for the economical development of the Mediterranean countries.

3.2 SOCIOCULTURAL TRENDS

The influence of the negative demographic trend affecting all European countries is expected to have disadvantageous impacts on the chemical industry by half of the Stakeholders, while the other half is substantially neutral.
Increased sensibility to environmental pollution and bad image, still very strong, of chemical industry regarding climate protection, safety and sustainability are considered, by many Partners, as a potential threat towards a positive industrial development, and there is an urgent need, among them, to re-qualify the chemical industry as human friendly.

As far as the availability of skilled resources and, more generally, the employment level is concerned, many Partners highlight the negative impact due to the growing number of temporary jobs, especially among young people, and the lack of qualified jobs offered by the labor market to the professional level today commonly available.

Immigration is viewed not as a threat but rather as an opportunity: migrants cover mostly operative roles, where request from local people is low.

### 3.3 TECHNOLOGICAL TRENDS

All Partners agree in thinking that technological competence is a huge chance for the chemical industry and the chemical logistics.

Strong innovation efforts in such fields like biotechnology, efficient energy use, renewable energy sources, new materials have the capability to generate new economic development and, together, to solve upcoming mega-challenges for human society.

ITC definitely come along with the opportunity to improve communication procedures, promote standardization, facilitate authorization processes and, therefore, increase the overall efficiency of the supply chain.

But ITC will have an equivalent impact in the extension of automation in the industrial and logistic processes and in fostering innovation in transportation/cargo handling and warehousing.

### 3.4 ENVIRONMENT AND ENERGY
Due to the fact that hydrocarbons are both the main energy source and raw materials for the chemical industry, their availability for European countries in the Mediterranean area is a threatening challenge.

Gas and oil have to be imported, as LOSAMEDCHEM Partners are neither strong gas nor oil producers.

The diversification and security of supplies is therefore crucial for a competitive regional chemical industry.

There is a general agreement among Partners on evaluating as a threat the rising energy costs, herald of expected high risks for the chemical industry as an energy intensive industry sector.

Additional threats are coming from the increasing political instability of the countries that are key oil and gas producers, which makes more critical the current situation.

On the contrary, most Partners judge positively the overall availability of the different energy sources.

Different opinions, instead, exist among the Partners regarding the new international legislation about the chemical substances (REACH, CLP), and that referring to CO2 emissions.

The prevailing opinion is that this legislation provides an additional burden for chemical industries, but many companies have already taken measures to deal with the new framework conditions and are, therefore, a step ahead.

Management of by-products and waste materials is mostly (there are some exceptions) considered an opportunity both in terms of environmental protection and exploitation of new materials/energy sources.

3.5 POLITICS AND INNOVATION

A transnational harmonization process of the traffic regulations, especially those governing cross-border transport, is universally considered a big opportunity, especially within international corporate groups.
Equally is considered a big chance a coordinated development of the traffic infrastructures, which should require a definition of the intervention priorities that must be agreed upon by all Partners interested in their development.

The majority of Partners stressed, on the opposite, the fact that the amount of the available EU financial resources for infrastructural development may be reduced in the context of the containment of public expenses. This could result in a major set-back for the sector.

The destination of the territory is commonly regarded as a primary task for the public Institutions, but, whereas some Partners are sustaining it as an opportunity, some others are afraid that the political intervention may produce negative effects and, therefore, they are oriented to view it as a threat.

Many voices are also asking for a stronger public support in favor of the chemical industry and of the relevant goods transportation, especially for non-road modalities, but there is a fear that balance cuts will affect negatively any possible intervention, considering that we are painfully emerging from a deep crisis.

3.6 TRANSPORT INFRASTRUCTURE

3.6.1 RAILWAY

In general, common understanding is that railway is not as competitive as it should be, especially for long distances, in spite of its well recognized advantages in term of safety and environmental friendship.

The current railway infrastructure level is universally regarded as insufficient, especially for cargo transportation: investment into rail network are practically nil, and its extension has been shrinking for the last years.

Economic conditions of state railroads are dramatic and the process of liberalization is painfully and slowly progressing amid a lot of obstacles.
The equipment is, in terms of quality and availability, absolutely poor and the price policy for cargo traffic is simply disastrous, so that further shifting of freight volume to road is unavoidable.

Furthermore, the bureaucratic constraints that affect transportation, the arcaic labor regulations and the lack of interoperability among the different regional rail networks are additional obstacles that prevent any possibility of increased use of this modality.

In Southern Europe there is growing shortage of side tracks connecting the industrial sites with the railway network: in spite of that, track dismantling goes on, compelling industries to choose, unwillingly, road.

Too often it happens that the industrial counterpart is seen by railway operator not as a customer to satisfy, but, instead, as a source of random interference.

The Italian legislation, introduced after the Viareggio accident, that forbids single wagon transportation for dangerous goods, is seen more as a threat to the Italian chemical industry than a real contribution to rail traffic safety.

Spain suffers from the historical difference of track gauge from the European standards and the time needed to implement a new bunch of rail lines compliant with it, in order to facilitate the Franco-Spanish transit, is a threat for the rail traffic development in the iberic peninsula.

Furthermore, not all Partners’ countries have at their disposal railway tracks that are class D: many times only class C tracks can be used; and due to that class difference rail equipment has to be adapted: class C tracks are not allowed to the modern rail tank cars.

The inadequate rail infrastructure being a barrier for chemical products transportation, a large share of them must use the road.

A special weakness of the rail way transportation, with the current situation, is the reloading duty at the border stations, due to the lack of interoperability.
Finally, complex custom clearance and sometime different interpretations of the regulations by custom Authorities discourage railway use for cross-border chemical transports.

Under these conditions customer satisfaction is seldom encountered.

3.6.2 ROAD

Traffic conditions on the road (accident frequency, environmental pollution, congestion level and also toll cost) are all critical factors against a correct development of the road transportation, universally recognized as too heavy and no longer sustainable.

In order to improve road traffic situation, urgent law interventions with this specific target are required, which unfortunately are not present in the priority issues of most Partners’ Authorities, therefore making real the threat of still worse road traffic conditions.

Another threat is also commonly considered the lack of harmonization of the allowed maximum weight and dimensions of road transport units at European level.

3.6.3 SEA WATERWAYS

There is common understanding among the different Partners that the geographical distribution of the harbors along the North Mediterranean shores is quite good.

The evaluation changes dramatically with reference to the efficiency and effectiveness of these harbors: in fact, especially logistic service providers and industries that compare performances of North European ports with those of the Mediterranean ones are convinced that a lot of improvement is needed in terms of reduced labor bureaucracy and increased flexibility, hinterland connections, non homogeneous adoption of the sector regulations, even in the same country.
Negatively is also considered the location of quite a few internal hubs and transshipment ports, and their connection to road and rail networks.

These negative aspects, which are commonly reported by port users, are a serious threat when considering use of sea waterways.

Another threat comes from the habit of many Mediterranean harbors, geographically close, to compete instead of cooperating and taking advantage of their peculiar features (e.g. Trieste-Koper, Barcelona-Tarragona, etc.).

Nevertheless, maritime transportation is due to increase in the next and far future, because of the number of advantages offered by this modality: cost, environment, delivery time guarantee, transported tons per ship ever bigger, etc.

3.6.4 INTERMODALITY

Intermodal transport, combining the best features of different transport modalities, should imply better logistics and lower transport costs, higher safety and less environmental damage.

The frequent declarations in favor and the explicit support of intermodality by the European Community are judged as a strong opportunity for its development, but the lack of concrete measures sustaining a real development of the intermodal transportation, especially important at Regional government level, represent a huge obstacle for this modality to grow.

The necessity of intermodal nodes and terminals complying with the complex requirements of the chemical goods, especially when it is the case of handling dangerous products, is largely unsatisfied: a very demonstration is the desperately poor present network of tank cleaning stations, which very often are even not included in plans for building new terminals.

Generally, big terminals at strategic important traffic nodes exist, but there is a lack of comprehensive national and, above all, international concepts.
All logistic operators have many times underlined the opportunity of a uniform international set of rules, as it is the case of the legal structure of the Multimodal Dangerous Goods Form.

At the moment there is no well developed structure for intermodal terminals in many Mediterranean Regions.

This leads to loss of efficiency of chemical logistics for the combined transport of railway and road.

3.6.5 PIPELINES

Pipelines are a very safe and efficient transport mode for chemical products, both liquid and gas.

Therefore the development of pipelines, especially for transporting dangerous goods, is considered an opportunity and there is consensus about a transnational interconnection of the existing regional networks.

2.7 SAFETY AND SECURITY

Increasing safety and security, implementing all the required interventions in order to improve the current situation in this direction is understood as a must.

All Partners agree on considering international unified safety and security standards through all European countries a huge opportunity and a big chance for the competitiveness of the chemical industry.

Maltese Partner, in particular, has considered main objective of his SWOT analysis safety and security issues regarding harbor and near-harbor conditions and infrastructures (what can be easily understood because of physical connotation of this small insular country).

The Maltese study includes also a methodology for risk evaluation with special focus on port sites, that can be usefully compared with similar procedures already existing c/o other Mediterranean harbor areas. A possible
development could be the implementation of a common procedure for such task among LOSAMEDCHEM Partners.

The comparison may also highlight what could be today a threat, as envisaged by some Partners: different national/regional interpretations of this issue can create constraints/obstacles that are not acceptable and, in some cases, limit the competitiveness of the market players.

3.7 INDUSTRY SECTOR AND COMPETITION

According to some Partners, the capability of tracking and tracing cargo units could be a competitive edge, especially for logistic service providers.

All Partners agree that cooperation among chemical industries is a significant opportunity, especially if the cooperation eventually evolves towards the creation of chemical clusters, with broader positive influences on the territory economy.

3.8 SUPPLIERS AND CUSTOMERS

In general, standardization is considered an opportunity; the potential of upward and downward integration is generally regarded as an asset not only for reducing costs but also for facilitating contacts along the supply chain, which is clearly a competitive advantage.

Similarly, suppliers’ concentration on a geographical basis is considered an advantage.

Clustering of customers in specific areas is seen by most Partners as an opportunity, but some consider it as a potential threat: in fact a strong geographical concentration makes easier the product distribution, but if the target market declines, consequences can be catastrophic for the supplying companies.

A strong brand implies clear difference with respect to the competition and promotes customers’ loyalty: it is an evident advantage.
CONCLUSIVE REMARKS:

NEED FOR FUTURE ACTIONS AND IMPROVEMENTS

A. FROM THE LOGISTIC POINT OF VIEW

- TRANSPORTATION

There is universal consensus among the Partners’ evaluations:

- railways: very negative notes about infrastructures level, service quality, bureaucratic constraints and lack of interoperability;

- road: traffic too heavy and no longer sustainable, due to accidents frequency, congestion level, environmental pollution and also toll costs;

- intermodality: in spite of frequent declarations in favor of its development, lack of concrete measures, especially at Regional government level: this is a huge obstacle for this modality to grow;

- sea waterways: the efficiency and effectiveness of the North Mediterranean harbors are dramatically low, when they are compared with the North European ports. Labor bureaucracy, lack of flexibility, non-homogeneous adoption of the sector regulations are among the critical, universally recognized as negative, issues: the consequences are transshipment, load and unload times too long and waste of time of the ships that must wait idle in the port area. A big deficit is also represented by inadequate accessibility and interconnection between port areas and their hinterland.

- TERMINAL ADDED VALUE SERVICES
Terminals for multimodal transport have a special importance for the chemical industry.

But they must offer the services that most customers require; among them we report just 2 examples:

- storage space for chemical goods, especially critical for dangerous products: the current situation is far from being satisfactory, because of the insufficient areas available;

- tank cleaning stations: most chemical products are liquid; multimodal cleaning stations, especially c/o intermodal hubs along the Pan-European corridors, are necessary and urgently requested by all customers; yet, no bi-modal cleaning station is available along the entire length of the TEN-T 6 European corridor.

B. FROM THE ECOLOGICAL POINT OF VIEW

Future availability of fossil energy resources, tax policies regarding their utilization and implementation of climatic sustainability plans are currently non-homogeneous across Europe.

Achieving harmonized EU-wide environmental regulations as determining factors for a sustainable development is a priority issue, but too often current situation is far from these targets, which are also a prerequisite for guaranteeing international competitiveness. Therefore a serious action should be undertaken in this direction by all Partners.

C. FROM THE SAFETY/SECURITY POINT OF VIEW

Safety and security aspects are of the utmost importance in chemical industry and chemical logistics: hence the rising valence of intelligent information and communication technologies in these fields.

Furthermore, the increased environmental sensitivity among people should not be underestimated: this will
unavoidably lead to a reshaping of the transport modalities, in favor of cleaner and more sustainable ones.

Therefore, the improvement of transportation networks involved in the distribution processes is urgent and mandatory, and a serious intervention of public Authorities, coordinated at European level, is not only necessary but also to be wished.

D. FROM THE GENERAL LOGISTIC POINT OF VIEW

Globalization of markets acts as an important driver for strategic competitiveness, where logistics plays a crucial role.

A growing number of trade partners and locations lead to increasing complexity within supply chain networks.

Therefore the challenge is to connect sectors and processes in both physical and informational fields.

Another cornerstone of the trade network is that the customer has become the central point of all entrepreneurial activities.

For these reasons logistics represents the ideal tool for building up customer-binding measures and for generating competitive advantages.

But the most important contribution that logistics can offer is the reduction of costs through the optimization of the supply chain processes, and especially of the relevant operational activities (loading/unloading, transportation, storage, etc.)

E. IN TERMS OF POLITICS FOR TRANSPORTATION AND INFRASTRUCTURES

1. Better coordination of the European plans for developing logistic infrastructures.

   It is necessary that all Partners agree on common priorities for the development of transport routes
and on how to speed-up the respective extension of the relevant infrastructures.

Stakeholders from political world, industry and administration have to be actively involved in this coordination process, in order to ensure that their actions are focused on planning to remove the most critical deficits, on a transnational level.

2. More efficient use of EU Structural Funds, in interaction with other regional and national funding sources.

The EU funds, with their leverage effects, are especially important in the development of strategic infrastructures.

3. Long term, rational and sustainable transport policy.

Transport infrastructure and traffic are crucial for the chemical industry and chemical logistics.

Main target is the development of an optimal global logistic transport system, where coherent and sustainable goals are pursued along the whole multimodal supply chain.

This target can only be reached if all involved Partners, of different countries/regions, are committed to a coordinated transnational effort, which must be superimposed, not subordinated, to the solution of local problems.