innesto:

a project for Sustainable District Logistics

Handbook
June 2004

Sustainable District Logistics: an Operational framework for implementing a new approach

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The INNESTO research project is supported by the European Commission under the Fifth Framework Programme and contributing to the implementation of the Key Action "Policy Aspects" within the Energy, Environment and Sustainable Development Programme (Contract N° EVG1-CT-2001-00054)

Contents

Acknowledgements

This handbook regards the operational framework to implement the Sustainable District Logistics (SDL) approach.
Theoretical issues of the SDL approach are presented in the Discussion Paper opened by the European Charter that summaries the commitments for the SDL future development as they were approved in the final Conference of the INNESTO held in June 2004.
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The INNESTO research project was supported by the European Commission under the Fifth Framework Programme and contributing to the implementation of the Key Action "Policy Aspects" within the Energy, Environment and Sustainable Development Programme (Contract N° EVG1-CT-2001-00054).

The kind attention and support from Mr Pierre Valette, Mr Per Backe-Hansen and Ms Irene Gabriel (DG Research, European Commission) allowed the INNESTO partners to arrive at this publication.

The European Charter of

"Sustainable District Logistics"

Castello di Poppi, Arezzo, Italy

June 29th 2004

The participants of the Conference; "Spreading Sustainable District Logistics Throughout Europe", held in Arezzo, on 28-29 June 2004 inaugurate a new approach to overcome the negative impacts of the current logistics process on a significant number of economic activities and geographical areas.

To this end, the Sustainable District Logistics approach promotes:

1. The sustainable accessibility to goods, services, people, places and information. This is a requirement to improve the quality of life based on equity between individuals, territories and generations considering both local and global dimensions and looking at the integration of different European contexts.

2. Participation, cooperation, networking, negotiation and shared visions. In fact, sustainable development requires the motivation of different stakeholders, citizens, public and private sectors while respecting all opinions and points of view.

3. A territorial governance based on a holistic vision considering the future generations. Territorial and business plans should valorise and integrate the diversity of social, economic and environmental features in order to cope with the negative aspects of a high mobility society.

4. A flexible and evolving toolbox. In fact, new methodologies are necessary to foster mutual learning and negotiation, through research, analysis, and market strategies (production and consumption) on a regional level and with benefits for local businesses and planners.

Sustainable District Logistics (SDL) is the integrated management of materials, energy and information flows in a cohesive territorial system to improve access to goods, services, people and places while maintaining and renewing the available resources (human-made, human and natural).

Preface

SUSTAINABLE DISTRICT LOGISTICS (SDL): TOWARDS A COHERENT METHODOLOGY

Based on the conceptual structure developed in the Discussion Paper (June, 2004), this handbook introduces the methodology that supports the *Sustainable District Logistics (SDL)* approach.

The Discussion Paper, in fact, describes different approaches considering the role of logistics in the current societies and presenting a "new social and territorial deal", which can foster a multi-level-governance and a holistic management of considering the local economic, socio-cultural and environmental systems.
Within the conceptual references provided in the Discussion Paper, some examples are reported to demonstrate the workability of the SDL approach. These examples derive from the five case studies performed by the INNESTO project.

Similarly, new examples taken from the INNESTO project are reported in this Handbook. In fact the Handbook aims at providing an operational guide to the SDL methods and tools for the stakeholders of this new approach.

The SDL methodology follows a specific path , which is initiated by a Stakeholder Analysis, continued in a Local Context Analysis and the District Logistics Analysis, and converges in a Local Scenario Workshops.

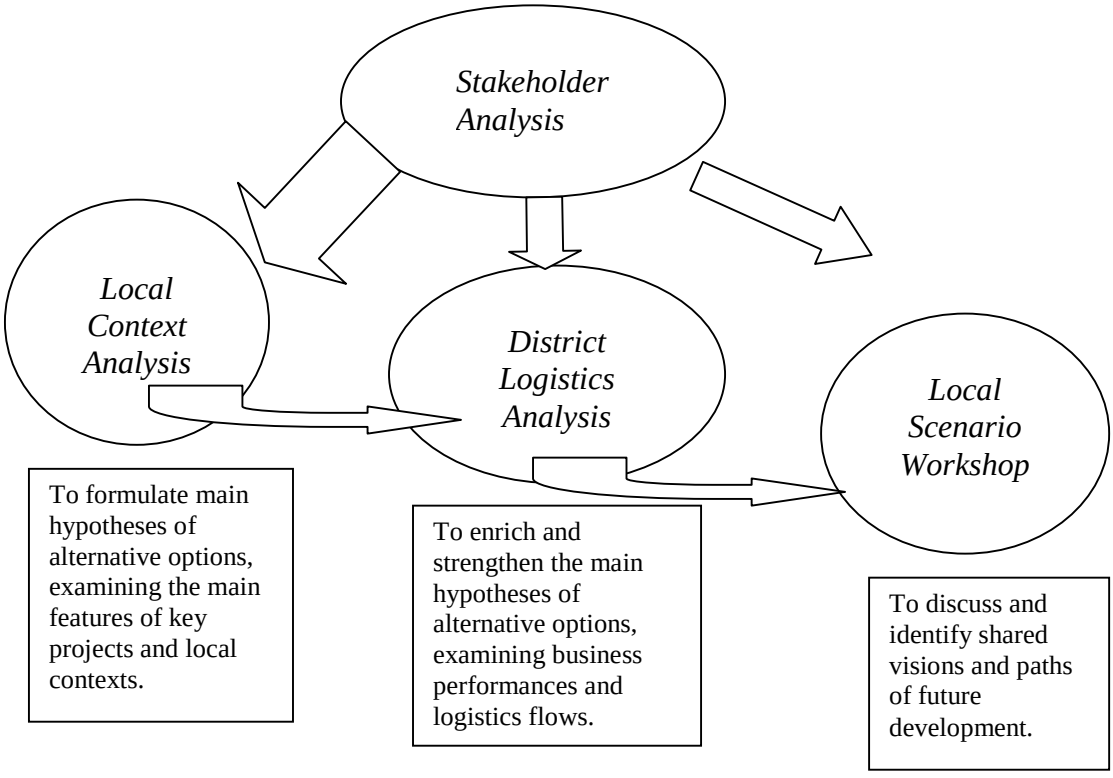
According to the INNESTO results, this path is useful to carry out a SDL project with appropriate adaptation according to the characteristics of the local context taken into consideration. In fact:

- Stakeholder Analysis (SA) serves to identify and involve local actors in a SDL project, representing different interests according to the specific purposes and issues that concern a selected local context.

- Local Contexts Analysis (LCA) serves to re-orient logistics and spatial planning processes towards sustainable development with the aims of formulating hypotheses of innovative options based on the main interesting features of current key projects, the relevant territorial aspects and on usefully selected indicators.

- District Logistics Analysis (DLA) serves to integrate the hypotheses of innovative options emerged from the LCA to those formulated through the examination of logistics flows and business performances.

- Local Scenario Workshop (LSW) serves to determine locally shared visions and paths on the future development (e.g. 15-year perspective) of sustainable district logistics, revising and reinforcing the main hypotheses of innovative options developed in the LCA and DLA.



A system for evaluation and decision support facilitates the local stakeholders to perform the Local Context Analysis, the District Logistics Analysis and the Local Scenario Workshop.

This system, "SDL.development", is an Internet-based on-line mechanism and provides both a coherent structure and a series of procedures to allow different stakeholders and local contexts to exchange each others a wide typology of experiences (e.g. analyses, results, indicators, data and tools originally created to deal with a specific issue or local feature).

Seven Chapters constitute the present Handbook.

Chapter 1 explains the appraisal and design circularity of the SDL approach.
Appraisal concerns the logistics situations and trends in a local context.
Appraisal is followed by the design of innovative courses of action (policies, programmes, projects, plans) in the logistics domain that regard the territory and the businesses.
The appraisal and the design activities are connected by the main tasks constituted by the Local Context Analysis (LCA), the District Logistics Analysis (DLA) and the Local Scenario Workshop (LSW).

The appraisal and the design activities are linked through SDL / SWOT analyses.
Chapter 2 explains how to carry out these analyses in order to identify hypotheses of innovative actions, appropriate combinations between them (clusters) and priorities according to their strategic relevance in the overall value added in the concerned local context.

A SDL project can be performed only with the involvement of the local stakeholders and Chapter 3 describes the methods that can be applied to analyse key actors and communities with the aims of creating three motivated and committed groups: a Local Advisory Group (LAG) and a Local Project Group (LPG) and a Local Scenario Workshop (LSW).
Each group plays a specific role in the appraisal path and the creation of innovative courses of action.

The Local Context Analysis is the theme of Chapter 4.
The overall features (economic, socio-cultural and environmental) of each territorial system are taken into consideration together with the most important actions (projects, plans, programmes).
The aim is to discover the interrelationships between the current situations of logistics, the expected trends of logistics and their impacts on the territorial systems in terms of Strengths, Weaknesses, Opportunities and Threats according to the "descriptors" that distinguish the 32 aspects of the Sustainable District Logistics (SDL) approach.
For each SDL aspect a list of indicators is identified.
It is recommended a flexible utilisation of the SDL aspects and the related indicators in order to arrive at hypotheses of innovative actions according to the specific characteristics of a local context and to the topics taken into account by the relative SDL project.

After the completion of the Local Context Analysis (LCA), the following analysis focuses on the main characteristics of the logistics flows and the related business performances.

This analysis, the District Logistics Analysis (DLA) is based on the acquisition of data from local businesses through the uses of questionnaires and interviews.
DLA elaborates results that are correlated with the LCA hypotheses through integration and, if necessary, modification.
Chapter 5 provides a series of instructions and examples for carrying out a DLA.
A specific set of SDL aspects is described to focus the attention on the corporate strategy towards SDL while indicators are selected to consider data derived from company balance sheets in order to benchmark business performances.

Chapter 6 is devoted to explain how to finalise a SDL project refining and reinforcing the main hypotheses of innovative options developed in the previous tasks (Local Context Analysis and District Logistics Analysis).
Shared visions and paths on the future development (e.g. 15-year perspective) aim at providing an overarching picture while simplifying, verifying and integrating the results of a SDL project in terms of innovative actions at business and territorial levels.
To this end local stakeholders are invited to participate actively in a Local Scenario Workshop (LSW).
Stakeholders should be selected according to the issues examined along the entire SDL project and with the willingness of collecting new points of view and interests.

All the methods and procedures that concern the LCA, DLA and LSW are facilitated and supported by the Internet-based "SDL.development" system.
The final Chapter 7 provides useful information on the system structure together with basic instructions for its utilisation

CHAPTER 1: SUSTAINABLE DISTRICT LOGISTICS (SDL) APPRAISAL AND DESIGN

The Sustainable District Logistics (SDL) approach is based on an iterative and open-ended process between:

- the appraisal of the logistics situations and trends in a local context;
- the design of innovative courses of action (policies, programmes, projects, plans) in the logistics domain that regards the territory and the businesses.

Continuous feedback between the appraisal of the territorial context and the design of innovative courses of action allows local stakeholders:

- to acquire a common knowledge and language on the SDL approach and methodology;
- to enrich and improve the SDL common understanding and language at a European level, through the comparison of the different case studies;
- to improve their capacity (knowledge and decision-making) in governing the co-evolving processes open to other logistics systems (SDL governance), territorially self-contained and determined by the Sustainable Quality Management of the available resources (human-made, human and natural).

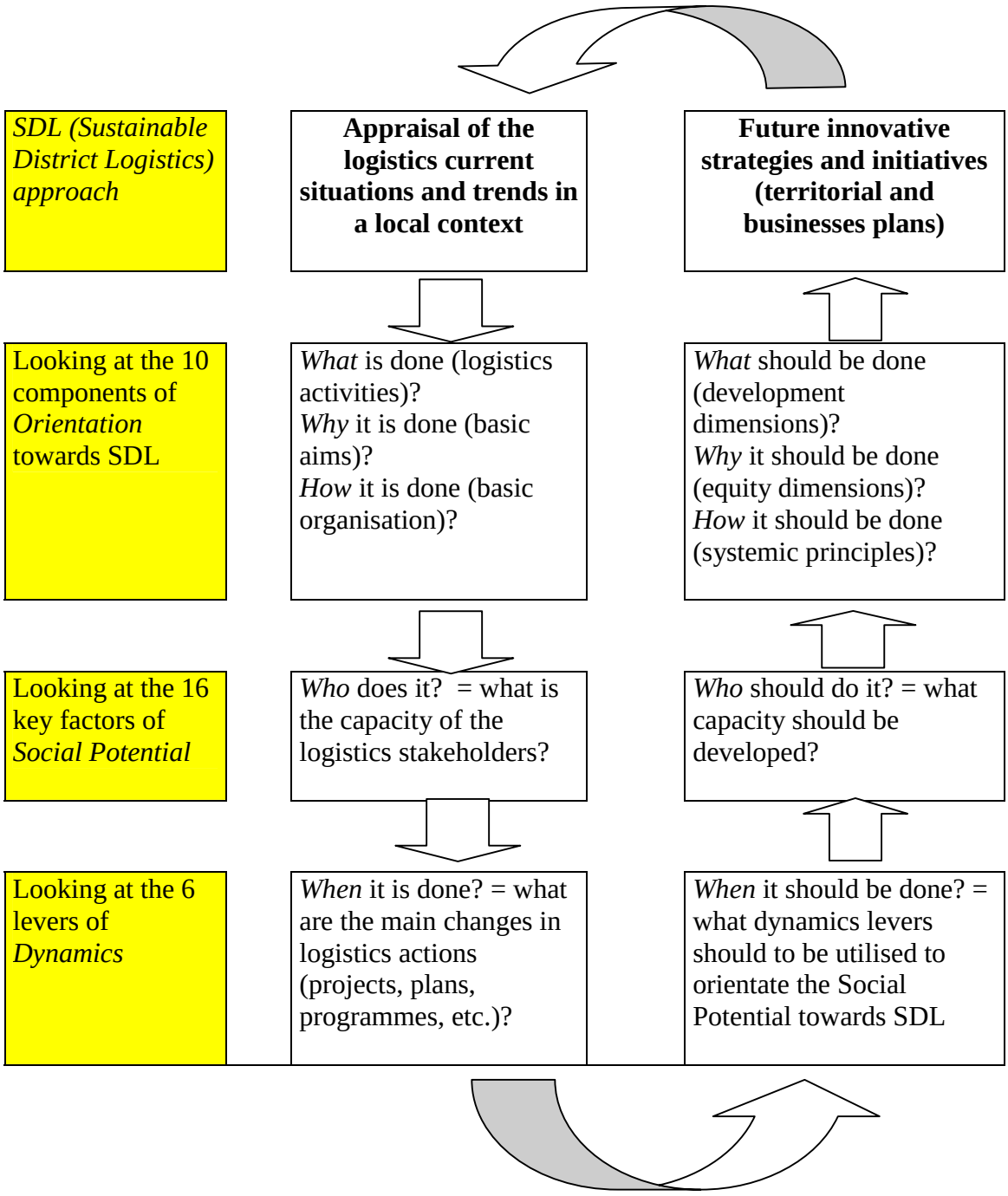
The perceptions of the local team of researchers play a basic role in the analysis.
The subjectivity (experience) of each researcher is an opportunity for innovation in the methods of analysis, ensuring that the logistics processes are examined considering the multidimensional relationships (within and between local contexts) and key stakeholders (e.g. suppliers, producers, consumers, public authorities, local communities, associations or groups of economic, socio-cultural and environmental interests).
Therefore the first task of a SDL project consists in analysing the stakeholders involved in the activities related to the concerned local context.

Tasks	Purposes	Expected results
Stakeholder Analysis (SA)	To constitute local groups of key stakeholders for carrying out the following tasks	Involvement and participation of a large series of local representative of economic, social and environmental interests

Three questions are fundamental when performing both the appraisal and design activities towards Sustainable District Logistics (SDL).
To respond to these questions, basic elements of the *SQM - Sustainable Quality Management*® (originated from INSURED, a previous EU supported research project) were further developed in the logistics domain with a multidisciplinary horizon that highlighted the close relationships between and within territorial systems:

Questions	*The 32 aspects of the Sustainable District Logistics (SDL) approach*
Which direction should be given to logistics systems in the future?	**ORIENTATION**: 10 components capable of connecting development (*what*) and equity dimensions (*why*) with systemic principles (*how*), defined through the combination of main concepts on sustainability, logistics and district
Which societal capacity should be built into governing logistics in a sustainable way?	**SOCIAL POTENTIAL**: 16 key factors capable of connecting institutional, human and social capitals (*who*), defined through the combination of main concepts on territorial governance and corporate social / environmental responsibility
Which driving energies should be stimulated to produce the above changes?	**DYNAMICS**: 6 levers capable of anticipating change (*when*), defined by merging main facilitating forces in logistics management and spatial planning

Each of the above-mentioned 32 aspects is defined according to the contents elaborated by the theoretical framework (see the Discussion Paper). Each aspect has a description of the main issues to be taken into account both in the appraisal and design activities. The “descriptor” assumes a role of a general guideline that can be further adapted to the specific local context taken into consideration. Indicators are formulated according to the contents that constitute the “descriptor”. Guidance for data gathering allows researchers to select and provide information to the stakeholders of a SDL project according to a series of selected foci of attention.


SDL (Sustainable District Logistics) approach
Appraisal of the logistics current situations and trends in a local context
Future innovative strategies and initiatives (territorial and businesses plans)
Looking at the 10 components of Orientation towards SDL
What is done (logistics activities)?
Why it is done (basic aims)?
How it is done (basic organisation)?
What should be done (development dimensions)?
Why it should be done (equity dimensions)?
How it should be done (systemic principles)?
Looking at the 16 key factors of Social Potential
Who does it? = what is the capacity of the logistics stakeholders?
Who should do it? = what capacity should be developed?
Looking at the 6 levers of Dynamics
When it is done? = what are the main changes in logistics actions (projects, plans, programmes, etc.)?
When it should be done? = what dynamics levers should to be utilised to orientate the Social Potential towards SDL

The appraisal and the design activities are connected by the following main tasks:

Tasks	Purposes	Expected results
Local Context Analysis (LCA)	To analyse interesting projects and the characteristics of the territory under study looking at all the available potentials towards Sustainable District Logistics	Main hypotheses of alternative actions with a close attention to the improvement of the logistics current impacts on the concerned local systems. Collection of information and data referred to the main features of the local contexts
District Logistics Analysis (DLA)	To examine different cycles of production, distribution and consumption regarding the territory and the businesses	Integration and modification of the LCA hypotheses of innovative actions. Collection of information and data referred to indicators of logistics flows and business performances
Local Scenario Workshop (LSW)	To determine a shared vision on Sustainable District Logistics, among the local stakeholders of the concerned territory	An overarching picture of future development while simplifying, verifying and integrating the hypotheses of innovative actions at business and territorial levels

The expected results (e.g. hypotheses of innovative actions, information and data) of the Local Context Analysis (LCA), the District Logistics Analysis (DLA) and the Local Scenario (LSW) are elaborated following the procedures presented in the Internet-based "SDL.development" system, which allows the concerned stakeholders to have both detailed and summarised reports.

CHAPTER 2: SDL / SWOT ANALYSIS

The appraisal and the design activities of the Sustainable District Logistics (SDL) approach are linked through the SDL / SWOT analyses.

The SDL / SWOT analysis:

- is carried out having in mind the specific content (descriptor) of the SDL aspect utilised during the Local Context Analysis, the District Logistics Analysis and the Local Scenario Workshop;
- serves to consider relevant issues and features (indicators and data) in order to arrive at the identification of hypotheses of innovative actions;
- can be performed both from the researchers and the stakeholders of a SDL project;
- gives better results if facilitators hopefully support the research team and the stakeholders together with experienced local development agents.

Generally speaking and on the basis of the experiences developed in some local case studies considered by the INNESTO project, the full range of the 32 SDL aspects (e.g. Casentino – Italy - and La Vega de Guadalquivir – Spain - case studies) is necessary to carry out the Local Context Analysis since it aims at providing the overall view of the examined territory, social communities and the most relevant local development initiatives.

However, in some other local INNESTO case studies, (e.g. Northern Brabant – The Netherlands - , Viborg – Denmark – and Trier – Germany -), a limited number of the SDL aspects were selected regarding the most useful combination between the Orientation, Social Potential and Dynamics “descriptors”.

The SDL / SWOT analysis can be useful also to perform the District Logistics Analysis, by taking into account the 10 Orientation aspects of the SDL approach.
In this case, the SDL / SWOT analysis should refer to a second series of “descriptors” (contents related to each SDL aspect) that are more business-logistics orientated.
In fact, the District Logistics Analysis, being based on the background references provided by the results of the Local Context Analysis, looks more in depth at the logistics flows and business performances.

In the Italian local area case study (Casentino), the analysis of the logistics business performances required the classification of the financial data from the balance sheets of a sample of interviewed companies. This classification was made according to the above-mentioned second series of "descriptors" referred to the 10 Orientation aspects of the SDL approach, arriving at a coherent system to benchmark the business performances.

Eventually, the SDL / SWOT analysis can facilitate the correlation of results stemming from the Local Context Analysis and the District Logistics Analysis with those of the Local Scenario Workshop. In order to determine a shared vision of the future development in a specific local context, the attention of the participant stakeholders can be focused on a selected number of the 10 SDL Orientation aspects, which enlarge the scope of the overall analysis or play a role of overarching "red-threads".

Appraisal activities depict Strengths, Weaknesses, Opportunities and Threats relating to each SDL aspect utilised to analyse the concerned local context.

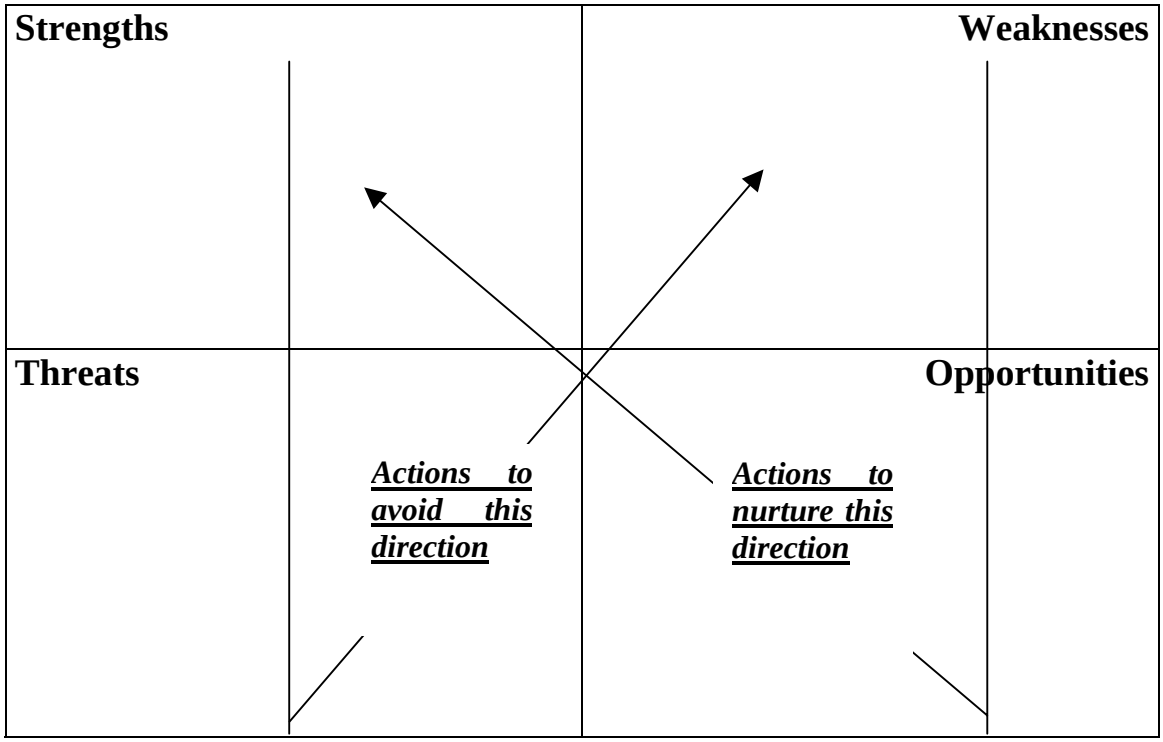
Strength and Weaknesses, Opportunity and Threats refer to different temporal scales and to their actuality or potentiality (what exists and what could exist):

- actual conditions are listed as Strengths and Weaknesses
- and predictable future situations are listed as Opportunities and Threats.

Combining the perceptions of the future (Opportunities and Threats) situations with those of the actual (Strength and Weaknesses) conditions, both the researchers and the involved stakeholders use a backcasting approach (looking at the future to determine paths that improve the present situations and change the current trends). This combination is aimed at developing innovative actions. The hypotheses of innovative actions are formulated considering the appraisal results eliciting which courses of action are necessary to improve the current situation towards SDL paths.

The method consists on confronting Strengths and Threats on one hand, and Weaknesses and Opportunities on the other hand.
Hypotheses for innovative actions derive from considering how the Strengths can overcome Threats to avoid becoming Weaknesses.
Other hypotheses derive from the capacity of utilising identified Opportunities as driving forces to transform Weaknesses into Strengths.

Finally, a comparison is made between the two fields of actions in order to combine those that are similar, to cluster those that have a common end.



Combination of the above actions according to their convergent contents and clusters of importance

The above-mentioned procedure leads to the formulation of hypotheses of innovative actions for each of the selected SDL aspect.

Local Context Analysis, which is the starting and basic task of a SDL project, a combination between the hypotheses of innovative actions is performed to determine a coherent strategic perspective capable of further improvement and development through the correlation with the results of the District Logistics Analysis and the Local Scenario Workshop.
The latter constitutes the final task for a strategy development which allows the stakeholders to determine a shared vision and main paths to reach the vision.
These paths generally enrich the main hypotheses of innovative actions, according to the combination chosen in the Local Context Analysis and improved by the correlations with the results of both the District Logistics Analysis and the Local Scenario Workshop.

Even though utilising similar ingredients (the SDL aspects and their descriptors), different combinations emerge in terms of SDL strategies that vary according to the background of the concerned local contexts.

In order to identify appropriate combinations, answers should be given to the following key question:

- what transformation levers (Dynamics) could be utilised to better act on the local key factors (Social Potential) in order to promote feasible paths towards sustainable district logistics (Orientation)?

The SDL method suggests the following steps:

- to address the innovative actions concerning the Dynamics levers with regard to the Orientation in order to identify feasible trajectories towards SDL
- to place the innovative actions referred to the Social Potential along the above-mentioned trajectories
- to formulate condensed hypotheses that summarised the main contents of the trajectories
- to cluster together the resulting hypotheses and prioritise them according to their strategic relevance in the overall value added in the concerned local context

INNESTO project: example taken from the Casentino – Italy – case study

Selection of SDL Dynamics aspects	Contents of the envisaged hypotheses of innovative actions
- Open collective learning	To increase knowledge, know-how and skills in logistics through courses, seminars and workshops based on the principles of sustainable development.

Selection of SDL Orientation aspect that can be positively influenced by the chosen Dynamics action	Contents of the envisaged hypotheses of innovative actions
- Socio – culture	To promote life styles more orientated towards sustainable consumption and production, to correct the current unbalanced logistics system through the creation of a "centre of resources" able to: • invest in people (human capital) of all the Valley territories, promoting research, training and education for qualified activities and employment (e.g. in agriculture, industry and services) towards knowledge and skills required by the promotion of sustainable development (logistics, mobility and transport included) • capitalise positive experiences (e.g. Life and Leader projects, municipal spatial and social insertion plans) of learning methods • implement e-learning methods enlarging scope and purposes of the local municipal network (rete civica) • mobilise local schools, businesses, associations and institutions towards shared education and training plans that could increase university and high school degrees lowering the drop-out rate

Selection of SDL Social Potential aspects on which it is useful to act to foster the trajectory towards the SDL Orientation:	Contents of the envisaged hypotheses of innovative actions
- Integration of social and technical skills for innovative processes	To organise a series of experimental courses on sustainable development in order to support the integration between knowledge and skills requested by Local Agenda 21 and logistics issues.

Aggregation of the above actions in order to define a comprehensive hypothesis of innovative actions
To create of a "centre of resources", integrated with Local Agenda 21 structures, in which knowledge, know-how and skills in sustainable logistics are developed year by year also through specific courses, seminars and workshops.

INNESTO project: example taken from the Viborg – Denmark – case study

Selection of SDL Dynamics aspects	Contents of the envisaged hypotheses of innovative actions
- Open collective learning	Integration of knowledge and practical experience on environmentally efficient logistics and transport in seminars and workshops targeting the local SME's and provided by the local industrial boards and consultants.
- Negotiation and co-decision	The establishment of a network within major industrial clusters in the County of Viborg in order to develop and implement strategic actions on the regional freight logistics and transport.

Selection of SDL Orientation aspect that can be positively influenced by the chosen Dynamics action	Contents of the envisaged hypotheses of innovative actions
- Economy	Increase the efficiency in the regional transport system in order to stimulate and sustain the economic activity in the region. To compensate for the peripheral location of SME's, that is orientated towards non-local markets, by an economic efficient and environmentally friendly organisation of freight transport and logistics: • to develop the competence on advanced logistics services of local transport firms • to orient attention and develop competencies of external logistics among local SME's as an strategic asset • a co-development of business and environmental strategies on sustainable district logistics • to prevent a re-location of local businesses within labour-intensive industries to Eastern European countries – for example the furniture and metal working industries • establishment of an inter-modal transport corridor based on ship-lorry-train via the commercial harbour of Hanstholm in the North-West of Viborg County. Development of intermodal hubs at the harbour of Hanstholm and a railway node in Viborg County (for example Thisted)

Selection of SDL Social Potential aspects on which it is useful to act to foster the trajectory towards the SDL Orientation:	Contents of the envisaged hypotheses of innovative actions
- Perception of a variety of development approaches	Tender of courses on logistics and environmental management for the needs of SME's via Centre of Wood and Furniture in the city of Skive Involvement of SME's in roundtables on specific implementation of SDL-measurements according to the conditions of the local industry
- Capacity to cope with complexity and ambiguity and to anticipate change	Introduce the concept of sustainable district logistics within existing planning and policy networks such as Transport Political Network and the North Sea Commission on transport corridors Co-ordinate policies and actions via interregional networks on de-coupling economic regional growth from a parallel growth in freight traffic

Aggregation of the above actions in order to define a comprehensive hypothesis of innovative actions
Development of innovative networks in the relationships among local furniture and transport firms as the basis for implementing regional policies aiming at promoting more sustainable district logistics.

INNESTO project: example taken from the Northern Brabant – The Netherlands – case study

Selection of SDL Dynamics aspects	Contents of the envisaged hypotheses of innovative actions
- Negotiation and co-decision	More regional debates on strategic transport issues should be organized, because such kind of debates increases the perception on the region with respect to its linking transport function. Furthermore, cooperation between parties involved in the transport process could be stimulated as all stakeholders will become known with the points of view of the other stakeholders.
- Creation of a shared vision	Strengthen the competitive position before the entry of the new accessing countries to the EU by specializing on "superb transport performance".

Selection of SDL Orientation aspect that can be positively influenced by the chosen Dynamics action	Contents of the envisaged hypotheses of innovative actions
- Environment	To increase the use of the environment there can be some local improvements: ❑ Stimulate transportation by inland waterway by way of road-water logistic chains. ❑ Stimulate establishment of companies near waterways or near 'Hubs. ❑ Increase or further development of intermodal load and unload facilities in 'Hubs'. ❑ Setting up of a "Virtual Transport Company", which stand above a large number of transport companies and optimize the transport flows by combining transports.
- Economy	To improve the efficiency of the local logistic structure the next options are open: ❑ Optimize the use of the central geographical position of the Brabant area through the tendering of multimodal transport solutions. ❑ Further extension of the facilities of existing 'Hubs'. ❑ Improve the capacity of existing water and road infrastructure. ❑ Start or restart initiatives in the area of non road transport alternatives like "The IJzeren Rijn" (a neglected railway corridor).

Selection of SDL Social Potential aspects on which it is useful to act to foster the trajectory towards the SDL Orientation:	Contents of the envisaged hypotheses of innovative actions
- Perception of a variety of development approaches	Stimulating of the "transport region"-thinking with special attention paid to sustainable development.
- Creativity and innovation in an entrepreneurial culture	Attracting of new innovative (transport) solutions and creating more chances for outsourcing, specializing or restructuring, should stimulate entrepreneurial development.

Aggregation of the above actions in order to define a comprehensive hypothesis of innovative actions
Developing of a virtual network (the Virtual Transport Company; VTC) of in principle independent transport companies, including intermodal node service providers, will increase the efficiency of transport and will decrease the social costs caused, for instance, by not fully utilized loading capacity per trip. Exchanging freights, therefore, will be a strong support of the further sustainable development of the Brabant transport sector.

CHAPTER 3: STAKEHOLDER ANALYSIS

In order to carry out a Sustainable District Logistics (SDL) project there is need to actively involve local stakeholders as representatives of

- the public sector (local and regional governments and authorities),
- the civil society (groups and organisations of diverse interests),
- the economic components (producers and suppliers, small and medium sized enterprises, larger companies, logistics and transport operators),
- the social and environmental components (local communities, citizens and families, environmental organisations).

Three groups of stakeholders are suggested, since they play different roles in the appraisal and design activities:

- the LAG, Local Advisory Group
- the LPG, Local Project Group
- the LSW, Local Scenario Workshop

An analysis of the local stakeholders should be made at the beginning of a SDL project, but it is useful to update the analysis during the project implementation both to adapt their involvement to the new developments (especially the hypotheses of innovative options) and to enlarge the representation of different interests and points of view.

Attention should be dedicated to the interests represented and the role played by the persons involved in a SDL project as well as to their disciplinary background looking at combining different disciplines and professional expertise.

LAG, Local Advisory Group

The LAG constitutes the local "political" branch of a SDL project. In fact the LAG gives advice, discusses, addresses, suggests, supports and monitors the promotion and implementation of SDL initiatives.
LAG specifically is helpful to carry out the Local Context Analysis (LCA), from which the main hypotheses of innovative options are derived.
To comply with this role, participants in the LAG are mainly representatives of local associations of end-users, for instance businesses and trades, farmers, logistics and transport operators, public authorities, social communities, trade unions, environmental interests, etc.

Adapting the "four I's" methodological criteria of stakeholders' involvement (Justice T., Jamieson D. W., *The facilitator's fieldbook*, AMACOM, New York 1999), the following matrix can be used to choose who should be involved, as a stakeholder representative, in the Local Advisory Group and to determine the appropriate type of her / his involvement.

The main characteristics of the logistics stakeholders are examined, attributing a commonly agreed score (from 0 to 5) to the following criteria:

Person	Interest	Influence	Impact	Information	Involvement degree (total)

Person	What organisation does the stakeholder represent?
Interest	How strong is her/his interest in the work of the group, fostering decisions and initiatives in relation to specific field of activity?
Influence	How strong is her/his influence to block decisions and initiatives?
Impact	To what extent will she/he be affected by decisions and initiatives?
Information	To what extent does she/he possess data needed to contribute to and facilitate decisions and initiatives
Involvement degree	To what extent is her/his participation important for the work of the group? (Total of the results)

The involvement degree helps to assign also a role to each person involved in the LAG. Generally all members are involved in a similar work together, as above stated. It is useful, however, to foresee specific roles according to the characteristics of each person in order to foster the LAG commitment in tasks that will be determined step by step. There can be the following roles: to chair the LAG, to promote the LAG in the local context; to facilitate contacts with other local contexts, organisations, etc.; to help the collection of or to provide information on specific matter; to monitor the activities, to support and communicate with LPG members and so on.

Moreover, taking into account all these elements, members can participate in the meetings regularly (permanent member) or occasionally (temporary member) because they are called only for specific matters.

Person	**Role**: Chair, Promotion, Contacts, Information, Monitoring, LPG, other (specify)	**Participation**: Permanent, Occasional

LPG, Local Project Group

The LPG is the local "operational branch" of a SDL project, involving local experts in logistics, business organisation and/or sustainable development, chosen from existing local development & business innovation agencies, firms, local authorities and organisations.
LPG specifically is useful to perform the District Logistics Analysis (DLA), in which flows (e.g. material, energy, information, but also people) are examined in depth together with business performance (e.g. logistics costs, organisational networks and typologies, SDL indices).

New and specific hypotheses of options emerge from the DLA and they are correlated to those elaborated during the LCA in order to verify and strengthen common paths towards SDL with the aims of integrating solutions that concern both the local territory and the businesses' fabric.

The persons to be involved in LPG are identified with a series of consultations of the LAG members. LAG members provide useful information in this sense, and also promote a committed and responsible participation in the fieldwork.

LPG should be articulated into specific workshops and subgroups.
Attention should be made to combine different disciplines and professional backgrounds (e.g. economy, urban and rural planning, landscape science, transport, business management, logistics, sustainable development and so on).

After the consultations, a final decision can be taken specifying the following characteristics of the LPG members.

Person	Excellence	Disciplinary background	Organisation role

Person	Which stakeholder is represented?
Excellence	What is the quality of the stakeholder organisation, specifying field of activity and interest?
Disciplinary background	What are the specific fields of knowledge and expertise of the person?
Organisation role	What role is played by the person involved in LPG in her/his organisation (stakeholder)? Is she/he at a strategic top, middle and operative levels

Other supportive instruments can be utilised to facilitate a sound decision on the LPG composition, as it is the following questionnaire adopted in the INNESTO project.

INNESTO project: example of questionnaire for creating a Local Project Group

Stakeholder organisation
Name, Address, Telephone, Fax, e-mail

Stakeholders typology and field of activity and interest		
1	❑	Governments, Public authorities and Administrations:
	1.1	❑ Spatial planning
	1.2	❑ Infrastructure
	1.3	❑ Transport
	1.4	❑ Economy
	1.5	❑ Energy
	1.6	❑ Environment
	1.7	❑ Social and health affairs
	1.8	❑ Research & Development
	1.9	❑ Education
	1.10	❑ other (specify

2	❑	Companies:
	2.1	❑ Large manufacturing and trading companies
	2.2	❑ Small – medium sized manufacturing and trading companies
	2.3	❑ Shippers and hauliers (transport, warehousing)
	2.4	❑ Large transportation companies (e.g. railways)
	2.5	❑ Transport consortia (e.g. metropolitan)
	2.6	❑ Logistics operators
3	❑	Association and organisations:
	3.1	❑ Transport, shippers, hauliers, logistics and warehousing
	3.2	❑ Business and trade
	3.3	❑ Artisans
	3.4	❑ Farmers
	3.5	❑ Trade unions
	3.6	❑ Environmental and ecological interests
	3.7	❑ Social and cultural interests
4	❑	Development agencies
	4.1	❑ Chambers of commerce
	4.2	❑ Business, technology and innovation centres
5	❑	Universities and Research Institutes
6	❑	Local community

Areas of experience		
A.1	❑	Strategic planning
A.2	❑	Local development initiatives
A.3	❑	Support to economic projects (business creation, assistance, etc.)
A.4	❑	Community services
A.5	❑	Diversification and re-conversion
A.6	❑	Development of relationships with other communities
A.7	❑	Information diffusion and exchange
A.8	❑	Promotion of equal opportunity
A.9	❑	Marketing and promotion of territory
A.10	❑	Development of local identity and diversity (economic, socio-cultural and environmental)
A.11	❑	Promotion of networking and partnership
A.12	❑	Research and development
A.13	❑	Relationships with universities and research institutes
A.14	❑	Transfer of technologies activity
A.15	❑	Logistics management
A.16	❑	Marketing
A.17	❑	Quality management
A.18	❑	Quality certification (ISO, EMAS, SA, etc.)
A.19	❑	Customer services (client satisfaction, etc.)
A.20	❑	Environmental research and development
A.21	❑	Environmental monitoring
A.22	❑	Training
A.23	❑	Environmental training
A.24	❑	Social training

LSW, Local Scenario Workshop

The LSW is not a permanent group in the SDL project, but it constitutes a central step to enlarge the points of view with the aims of determining a locally shared vision and paths on the future development (e.g. 15 year perspective) of sustainable district logistics (SDL). Participants develop their own opinions and suggestions on the future characteristics of the local context to solve main problems where logistics dynamics are embedded. The results of the Local Context Analysis and District Logistics Analysis are utilised to support the creativity of the participants. The participants in a Local Scenario Workshop should be selected to include and/or strengthen interests that are recognised to be relevant in relation with the results of the Local Context Analysis and District Logistics Analysis. To this end, answers should be given to the question "who is the excluded and why?", looking at the composition of the Local Advisory and Project Groups, as well as at the main findings of the Local Context Analysis and District Logistics Analysis.

Suggestions for the stakeholders' involvement

Capitalising on the experiences gained in the five local study areas examined in the INNESTO project (Casentino Valley - IT, Trier – DE, Vega de Guadalquivir /Seville – ES, Brabrant – NL and Viborg – DK), some guidelines can be suggested to create and manage the three stakeholder groups.
The SDL approach should be utilised to find pragmatic solutions capable of dealing with a wide variety of different cultures, expectations, and professional backgrounds in different local contexts. Flexibility in the way the groups can be created and the distinction between roles and tasks should be maintained throughout the overall management of a SDL project.
According to the specific SDL project, composition can be:

- clearly differentiated between the above-mentioned three groups
- differentiated between Local Advisory Group and Local Project Group, with the latter becoming a part of the Local Scenario Workshop
- similar between Local Advisory Group and Local Project Group, with a further enlargement of interests in the Local Scenario Workshop
- similar in all the three groups

Local Advisory and Project Groups can be managed through plenary sessions, bilateral meetings and contacts. When it is necessary, subgroups are created to examine specific issues, situations and processes. In any case, it is necessary to combine participation and effectiveness in a flexible way especially when the time available for carrying out a SDL project is short.
Group creation is generally easier for project promoters with a governmental role than for private research institutes or universities. In fact, a public authority that is committed to carrying out a SDL project has the advantage that it possesses a series of official consolidated relationships in different policy fields and with a wide range of stakeholders. In any case:

- alliance with public authorities helps to overcome difficulties
- it is necessary to integrate competences coming from the research side with those typically offered by local development agents and facilitators in order to permanently motivate key persons and associations of interests.

In some cases, difficulties and delays can arise in the creation of the project groups.
In these cases, solutions can be determined by:

- combining the ingredients of the general SDL framework and adapting the scheduled work plans according to the characteristics of the concerned local context;
- concentrating the research efforts in a feasible way, acting on the basic interests of the local stakeholders and simplifying the originally scheduled steps and procedures;
- aggregating or uniting the stakeholder groups through the selection of members with a high professional and expertise profile.

During the implementation of the SDL approach, different degrees of stakeholder involvement can be reached, but there is the necessity to permanently support the stakeholder interests in relation to the scope of the specific project and to the characteristics of the concerned local context, taking into account that:

- A large variety of stakeholders is necessary when the purposes of a SDL project concern a close relationships between logistics issues and several policy fields of territorial planning (e.g. spatial, rural, social services, employment, vocational training, corporate social responsibility, governance).
- The selection of stakeholders can be progressively determined in order to balance their participation in a SDL project where a wide range of relationships exists between the operators of an extended production chain or of a cross-border territorial area.
- A core group of stakeholders should be identify when a SDL project needs to be carried out in a short time and, therefore, it is necessary to work in a fast and efficient way, as well as to combine different interests, expertises and professional roles.

Generally the traditional culture of the transport and logistics domains, where women have still a limited access and few opportunities to manage high levels of decision-making, does not favour women involvement in Local Advisory and Project Groups.
For this reason, equal opportunities between men and women should be considered in the SDL project, opening the logistics to new points of view by including women in the stakeholder groups. This is particularly useful in the Local Scenario Workshop where the final debate on the overarching future perspectives can be organised ensuring a fair composition between men and women participants.

INNESTO project: example taken from the Casentino – Italy – case study
LAG and LPG had multiple role as representatives and logistics experts, however, there was the necessity to enlarge the stakeholder representation with the aims of incorporating new points of view on sustainable accessibility to goods, services, people and places, for instance from associations of consumers, households, students, parents, commuters, the third sector and environmental sectors, as well as from organisations and bodies involved in civil rights, social and health, equal opportunities etc. Moreover, it was recognised that the involvement of a low number of women depended on cultural reasons: in general the representative roles are still predominantly male; in particular the logistics field is still a male interest sector. To counterbalance this disparity in interests, it was decided to perform the LSW with an equal number of women and men (50%).

CHAPTER 4: LOCAL CONTEXT ANALYSIS

The Local Context Analysis is focused on the interrelationships between the current situations of logistics, the expected trends of logistics and the overall features (economic, socio-cultural and environmental) of each territorial system.

The most important actions (projects, plans, programmes) are taken into consideration in order to evaluate the impacts of logistics situations and trends on the territorial systems in terms of Strengths, Weaknesses, Opportunities and Threats according to the "descriptors" that distinguish the 32 aspects of the Sustainable District Logistics (SDL) approach.

Each action is evaluated referring at specific aspects and their "descriptors". A score (from 0 to 5 points) is attributed to the action taken into account, writing what are the relevant reasons that lead to that score. Considering all the scores and reasons derived from the different actions, an overall score is evaluated for the Strengths, Weaknesses, Opportunities and Threats that are present in a local / regional context for each of the 32 aspects of the Sustainable District Logistics (SDL) approach.

The overall score is not mathematically determined but depends on value judgements based on the qualitative balance between the scores relative to each of the most important actions taken into analysis
The relative importance for each SDL aspect serves to focus the attention of the stakeholders on how to improve the current situation through the identification of hypotheses of innovative actions.

All the above-mentioned procedure is facilitated by the utilisation of the on-line Internet-based "SDL.development" system.

Specific forms are created in the "SDL.development" system to support the SDL / SWOT analysis related to each of the 32 SDL aspects (see the below example)

SWOT Analysis

Strengths	5	**Weaknesses**	3
Actions programmed for the management	5	Lack of management of agricultural wast	5
Plan of Urban Waste of Andalusia	5	Excessive urban and infrastructures pres	2
Energetic Plan of Andalusia	5	Bad quality of the superficial and undergr	2
Programmes for the economic sustainable	5	Predominance of intensive agriculture. E>	2
Project of center of innovation and techr	5	Shortage of importance of the environme	5
Project of a power plant of biomass	5		
Plan of Environment of Andalusia	3		
Environmental improvement of the Guald	2		
Threats	5	**Opportunities**	5
Lack of coordination between the agricul	5	Construction of a plant of biomass	5
Lack of coordination between the energe	5	Creation of the center of innovation and	5
Not consideration of the environmental ir	5	Improvement of the logistics of the urba	5

Results are presented in readable reports as shown by the following example.

Environment

SWOT Analysis

Strengths ●●●●●

●●●●●	Actions programmed for the management of the waste
●●●●●	Plan of Urban Waste of Andalusia
●●●●●	Energetic Plan of Andalusia
●●●●●	Programmes for the economic sustainable development
●●●●●	Project of center of innovation and technology of the waste
●●●●●	Project of a power plant of biomass
●●●	Plan of Environment of Andalusia
●●	Environmental improvement of the Gualdalquivir river

Weaknesses ●●●

●●●●●	Lack of management of agricultural waste
●●	Excessive urban and infrastructures pressure on very fertilesoils
●●	Bad quality of the superficial and underground water
●●	Predominance of intensive agriculture. Excessive consumption of water and chemical products
●●●●●	Shortage of importance of the environmental industry

Threats ●●●●●

●●●●●	Lack of coordination between the agricultural activities and the waste management
●●●●●	Lack of coordination between the energetic and environmental planning
●●●●●	Not consideration of the environmental industry in the Plan of Sustainable Development

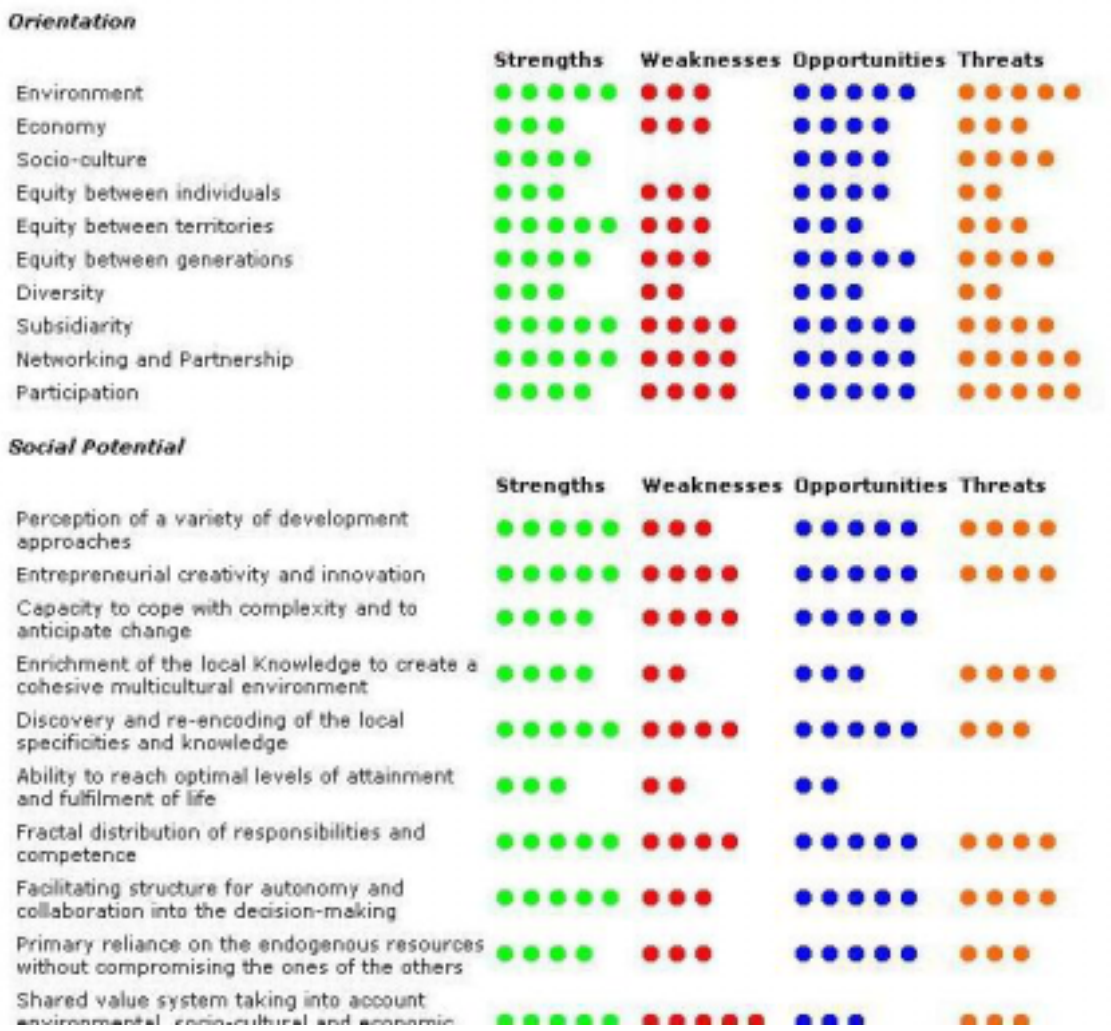
Opportunities ●●●●●

●●●●●	Construction of a plant of biomass
●●●●●	Creation of the center of innovation and technology of waste
●●●●●	Improvement of the logistics of the urban waste

Main hypotheses

Development of one coordinated program for the integrated management of waste based in the concertation of the diferents institutional and planner agents with the local economyc agents.

The results of the appraisal activity carried out in a specific local contexts are summarised and made visibly understandable through "hot spots" figured in an outlined profile (see the below example).



For each SDL aspect a series of indicators are identified to facilitate a more in depth analysis of the concerned local context.

Data gathered to quantify each indicator are stored in the “SDL.development” system in order to make appropriate calculation on ratios and percentages, as well as other statistical elaborations.

The 32 SDL aspects regard: 1) the Orientation towards SDL (10 aspects); 2) the key factors that characterise the Social Potential of the local context (16 aspects); 3) the levers of Dynamics that foster change in the local development patterns (6 aspects).

The Orientation towards SDL approach is aimed at answering a first basic question:

Which direction should be given to logistics systems in the concerned territorial system?	
What do we want to sustain?	The integration between three **Development Dimensions**: • The environment • Economy • Socio-culture
Why do we want to sustain it?	To integrate three **Equity Dimensions** • Equity between individuals • Equity between territories • Equity between generations
How do we want to sustain it?	Through the integration of four **Systemic Principles**: • Diversity • Subsidiarity • Networking / Partnership • Participation

What follows is the list of the descriptors and indicators that underline the main issues to be considered by each of the 10 aspects related to the SDL ORIENTATION.

O1	***Environment***
Sustainable District Logistics (SDL) orients logistics towards: • Reduction of natural resource consumption (energy, soil, water, fuel, etc.) • Preserving landscape configuration (density of hard infrastructures, etc.) • Re-utilisation of products • Recycling of parts of products, semi-products and wastes • Pollution prevention and reduction • Diffusion of new clean technologies, eco-efficient means and modes of transport • Utilisation of renewable sources of energy	

Therefore there is need to monitor basic territory features, the land use development, the resource use development and the environmental impact development.

OR01. Basic indicators for SDL	
Structural statistics	*Unit of measurement*
Total area	Km2
Total inhabitants	Number
Population density	Inhabitants / km2
Land use development	*Unit of measurement*
Agriculture area	Percentage over total area
Urban area	Percentage over total area
Area for transport purposes	Percentage over total area
Area under environmental protection	Percentage over total area
Resource use development	*Unit of measurement*
Total residual household waste	Tonnes per year
Residual household waste per inhabitant	Kg / inhabitants per year
Total residual non-household waste	Tonnes per year
Residual non-household waste per unit GDP	Index (Tonnes / GDP Euro) per year

Total energy consumption and in main sectors: transport, industry and other uses	Toe and percentage per year in
Total energy consumption per unit GDP	Index (Toe / GDP Euro) per year
Total energy consumption per inhabitant	Toe / inhabitants per year
Total energy consumption per transport mode: road, rail, water, air transport	Toe and percentage per year over total transport
Total energy consumption per passenger transport mode: road, rail, water, air	Toe and percentage per year over total transport
Total energy consumption per freight transport mode transport, industry and other uses	Toe and percentage per year over total transport
Environmental impact development	*Unit of measurement*
Total CO2 production, of which due to transport sector	Tonnes per year and percentage of transport sector
Total CO2 production per inhabitant	Tonnes per inhabitant per year
Total CO2 production due to transport modes: road, rail, water, air	Tonnes and percentage per year over total transport mode
Total CO2 production per passenger transport modes: road, rail, water, air	Tonnes and percentage per year over total transport mode
Total CO2 production per freight transport mode: road, rail, water, air s	Tonnes and percentage per year over total transport mode
Average peak concentration of traffic noise	Areas above legal limits to noise (db)
Total NO x transport emission	Tonnes per year
Total VOC transport emission	Tonnes per year
Total PM10 transport emission	Tonnes per year
Total SO x transport emission	Tonnes per year
Average water quality	Extended Biotic Index (I-IV)

O2	***Economy***
Sustainable District Logistics (SDL) orients logistics towards efficiency, customer satisfaction and community well-being based on: • Reduction of the material, energy and transport intensity (flows) in the economy (decoupling) also by means of soft and clean technologies • Investments for the incorporation and reduction of the environmental and social costs in logistics accounting • Dematerialisation of economy (durability of goods and services, miniaturisation of products, substitution of products by services) • Reduction of transport growth and more balanced modal split in favour of rail and water • Information and Communication Technology to substitute transport (e.g. telecommuting, home-shopping and delivering, teleconferences, tele-working, etc.)	

Therefore there is need to monitor basic economic features, structural development logistics, structural development trade, transport infrastructure development, transport intensity, external costs of transportation.

OR02. Basic indicators for SDL	
Basic Structure	*Unit of measurement*
Total GDP	Euro per year
Total employment in all sectors	Number per year
Investment: Gross fixed capital formation in transport industry	Euro and percentage over Gross fixed capital formation in all economic sectors per year

E-logistics	Number and percentage of logistics and transport operators with access to the Internet over all logistics and transport operators per year
Local units in wholesale trade	Number per year
Local units in retail trade	Number per year
Total store (all trade activities) surface per inhabitant and surface share of wholesale and retail trade	M2 per 1000 inhabitants per year and percentage over all store surface
E-commerce (producers)	Number and percentage of businesses with access to the Internet over all businesses per year
E-commerce (consumers)	Number and percentage of households with access to the Internet over all households per year
Transport infrastructure development	*Unit of measurement*
Railways per typology (sole or double track) and per inhabitant	Km per 1000 inhabitants per year
Roads per typology (sole or double track) and per inhabitant	Km per 1000 inhabitants per year
Railways capacity	Max trains per days
Road capacity	Max vehicles per day
Road congestion, traffic jams and time loss	Average number of traffic jams-hours per inhabitant per year
Overcrowded public transport	Average number of crowding-hours per inhabitant per year
Transport intensity	*Unit of measurement*
Total passenger per transport mode: road, rail, water, air	Modal split in P-km and percentage per year
Total freight per transport mode: road, rail, water, air	Modal split in T-km and percentage per year
Passenger transport intensity per unit GDP	Index (P-km / GDP Euro) per year
Freight transport intensity per unit GDP	Index (T-km / GDP Euro) per year
Passenger transport intensity per inhabitant	P-km per inhabitant per year
Freight transport intensity per inhabitant	T-km per inhabitant per year
External costs of transportation	*Unit of measurement*
Estimate of environmental (greenhouse and air impacts), social and health (noise, accidents, congestion) damages caused by total transport mode: road, rail, water, air	Euro per year Percentage of total external costs over total GDP
Estimate of total environmental (greenhouse and air impacts), social and health (noise, accidents, congestion) damages caused by passenger transport mode: road, rail, water, air	Euro per year Percentage of total external costs over total GDP
Estimate of total environmental (greenhouse and air impacts), social and health (noise, accidents, congestion) damages caused by freight transport mode: road, rail, water, air	Euro per year Percentage of total external costs over total GDP

O3	***Socio-Culture***
Sustainable District Logistics (SDL) orients logistics towards: • Promotion of sustainable styles of production and consumption • Investments in human capital (education and training) especially on sustainable development, logistics, transport, etc. • Transdisciplinarity for integrated management of logistics and integrating planning • Investments on innovation (Research & Development)	

Therefore there is need to monitor basic features of the population structure, the activity (employment) developments and the education level.

OR03. Basic indicators for SDL	
Population structure	*Unit of measurement*
Total population, women and men	Number per year and percentage of women and men
Total population aged 15 – 64, women and men	Number per year and percentage of women and men
Life expectancy, total and gender breakdown (women and men)	Number of years a person may be expected to live, starting at age 0
Activity developments	*Unit of measurement*
Unemployment rate	Rate per year (Eurostat methodology)
Activity rate per year	Rate per year (Eurostat methodology)
Employment in main sectors: agriculture, industry and services	Number and percentage over all employment sectors per year
Employment in all transport services	Number and percentage over all employment sectors per year
Employment per transport mode: road, rail, water, air	Number and percentage over all transport employment per year
Employment in supporting and auxiliary transport activities – e.g. travel agencies	Number and percentage over all employment sectors per year
Employment in all trade activities, wholesale and retail trade share	Number and percentage over all employment sectors per year
Education level	*Unit of measurement*
Drop-out rate of upper secondary schools	Percentage over total student population in upper secondary schools per year
University degree	Percentage over all local population per year
High school degree per year	Percentage over all local population per year
Education programmes on the environment	Number per year

O4	***Equity between individuals***
Sustainable District Logistics (SDL) orients logistics towards: • Improvement of accessibility to goods, services, people and places, developing services that meet the needs of local population, including women, the poor, the rural, the disabled, elderly people, immigrants, ethnic minorities, etc. (equal accessibility) • Balanced local development • Health and safety activities • Reduction of unnecessary and undesirable travels, movement and material flows	

Therefore there is need to monitor basic features that concern the equal opportunities developments and the impacts of transport intensity on health and security.

OR04. Basic indicators for SDL	
Equal opportunities developments	*Unit of measurement*
Women and men unemployment rate	Rate per year (Eurostat methodology)
Women and men activity rate	Rate per year (Eurostat methodology)
Transport and logistics companies directed by women	Percentage over the sector companies per year
Women in local government	Number and percentage over total men in local government per year
Women with University degree	Percentage over population per year
Families below the poverty line (absolute and / or relative)	Percentage over total families per family per year
Immigrant families below the poverty line	Percentage over the total families below the poverty line per year
Transport intensity impacts	*Unit of measurement*
Death and injury related traffic accidents	Number and percentage over total local population per year
Death and illness related to transport pollution	Number and percentage over total local population per year

O5	***Equity between territories***
Sustainable District Logistics (SDL) orients logistics towards: • Balanced interlocal development (economic, socio-cultural and environmental) • Development of fair and solidarity relationships between different local / regional contexts (equal accessibility in trade, economy, socio-culture, environment) • Balanced alliance between logistics operators of different local areas • Diffusion of connecting high technology systems (e.g. digital cities, interlocal digital networks)	

Therefore there is need to monitor basic features of economic and social cohesion between the concerned territory and other local communities.

OR05. Basic indicators for SDL	
Economic and social cohesion	*Unit of measurement*
GDP per inhabitant (Euro)	Euro per year compared to regional and EU 15 GDP per inhabitant
Immigration	Percentage of immigrants over total local population per year
Internet – based networks between the concerned territory and other local communities	Number and scope of the networks

O6	***Equity between generations***
Sustainable District Logistics (SDL) orients logistics towards: • Research concerning sustainable logistics scenarios, patterns, methods and technologies • Education to nourish the ability of future generations to conceive new styles of production and consumption • Conservation and development of environmental resources • Strategic impact assessment of the logistics patterns (long-term risks and damaging changes) considering the aspects of the other 9 components on the future generations	

Therefore there is need to monitor basic features of social cohesion and development impacts between generations.

OR06. Basic indicators for SDL	
Social cohesion	*Unit of measurement*
Share of population below 15 years and above 65 years	Percentage over all local population per year
Dependency rate per year	Percentage of 0-14 and 65 – over aged people over population aged 15 –64 per year
Immigrant pupils in primary schools	Number and percentage over the autochthonous pupils in primary school per year
Development impacts	*Unit of measurement*
Public debt per inhabitant	Euro per year
Strategic environmental impact assessment	Number of assessments carried out in the concerned territory per year

O7	***Diversity***
Sustainable District Logistics (SDL) orients logistics towards coherence, flexibility, permeability and diffusion of: • Local identities and fabrics (biodiversity, habitat, socio-cultural heritage, economy vocations, etc.) • Innovation and development of economic sectors, focused especially on small and medium sized enterprises, income sources both in rural and urban areas, styles of production and consumption (values and ethics)	

Therefore there is need to monitor basic features of the social, environmental and economic diversity.

OR07. Basic indicators for SDL	
Social diversity	*Unit of measurement*
Immigration by origin	Percentage of immigrants from East Europe, Asia and Africa over total immigrants per year
Environmental diversity	*Unit of measurement*
Biodiversity	Number of programmes and plans per year
Economic diversity	*Unit of measurement*
Businesses with local origin certification	Number of certified businesses per year

O8	***Subsidiarity***
Sustainable District Logistics (SDL) orients logistics towards capacity building (knowledge dissemination and decision-making openness) based on: • Integration of local and wider (global) dimensions (glocacity) • Reduction of the spatial range of material flows • Streamlined organisation of material flows • Integration of top-down and bottom-up approaches in streamlined organisations (businesses, public administrations and other associations) • Empowerment of local communities	

Therefore there is need to monitor basic features of institutional subsidiarity while considering transport flow as an indicator of social and economic subsidiarity.

OR08. Basic indicators for SDL	
Institutional subsidiarity	*Unit of measurement*
Budget autonomy and responsibility of local authorities	Euro and percentage over total public spending of the concerned territory per year
Transport flow subsidiarity	*Unit of measurement*
Average share of passenger transport internally borne, externally borne and transit traffic	Percentage over total P-km per year
Average share of freight transport internally borne, externally borne and transit traffic	Percentage over total T-km per year

O9	***Networking / Partnership***

Sustainable District Logistics (SDL) orients logistics towards:

- Development of regional / local networks of production, distribution and consumption
- Investments in social capital (community glues, intermediary bodies, bridges and networks)
- Networked organisations (e.g. consortia between businesses, co-operation between private, public and social sectors, co-operation between local and metropolitan consortia of transport and logistics)
- Alliances between environmentally friendly transport modes and operators
- Exchange of experiences and good practice of sustainable transport and logistics between different local and regional contexts
- Alliances and collaboration between public authorities and private actors of different local / regional contexts

Therefore there is need to monitor basic features of economic and social networks.

OR09. Basic indicators for SDL	
Total businesses (local units) in all economy sectors	Number per year
Businesses (local units) per main sectors: agriculture, industry, services	Number and percentage over all sectors per year
Business associations	Number per economy sector per year
Businesses (local units) in all transport services	Number and percentage over all economy sectors per year
Businesses (local units) per transport mode: road, rail, water, air (mode/)	Number and percentage over all transport services per year
Businesses (local units) in supporting and auxiliary transport activities – e.g. travel agencies	Number and percentage over all economy sectors per year
Consortia between logistics operators	Number per year

O10	***Participation***
Sustainable District Logistics (SDL) orients logistics towards: • Enlargement of the stakeholders constellation to incorporate in the logistics processes new points of view, cultures, interests and behaviours (e.g. those concerning women, new generations, elderly, disabled, poor people) • Information, animation and facilitation • Stakeholder's involvement and legitimate acknowledgement in the decision-making processes of spatial planning, transport, logistics, etc. • Involvement of different agencies (private, public and social) in the management of logistics processes • Community participatory forms of co-operative management of proximity logistics processes • Democratic management of the strategic impact assessment of logistics processes	

Therefore there is need to monitor basic features that concern the promotion of citizens' participation.

OR010. Basic indicators for SDL	
Public awareness campaigns related to the environment	Number per year
Public awareness campaigns related to transportation and logistics	Number per year
Non profit associations (volunteer) related to social, cultural and environmental interests	Number per typology of interests per year

The analysis of the Social Potential of a specific local context is aimed at answering the following question:

Which societal capacity should be built into governing logistics in a sustainable way?

P1	***Perception of a variety of development approaches***
The Sustainable District Logistics (SDL) approach is facilitated by: • Willingness and practices of the logistics stakeholders (businesses, public authorities, civil society and communities) to open their views and ways of thinking, looking at new issues and conceptions on local and logistics development (debates, seminars, interdisciplinary working groups, animation and mobilisation of citizens, new plans on sustainable development, etc.)	

Therefore there is need to monitor basically the following courses of actions.

P01. Basic indicators for SDL	
Workshops and seminars focused on sustainable development	Number per year
Publications and public information on sustainable development and related innovation	Number per year

P2	***Entrepreneurial creativity and innovation***
The Sustainable District Logistics (SDL) approach is facilitated by: • Reproductive capacity of the local context, based on common cultural roots, mobilisation of potential resources and research to improve the quality of life (projects and plans for sustainable businesses, banking, agriculture, tourism, etc.) • Fertilisation of the local economic fabric to embed the single business into the fluxes of internal and external production relationships (typology and number of businesses, their life expectancy, sizes, markets, eco-efficiency technologies, etc.) • Corporate Social Responsibility (CSR), defined by the recent (2002) European Union action framework, as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" (typology and number of businesses and public bodies with social and environmental quality certifications, etc.).	

Therefore there is need to monitor basically the following entrepreneurial features.

P02. Basic indicators for SDL	
Average business size in all economic sectors	Number of employed per local unit per year
Average business size in main economic sectors: agriculture, industry and services	Number of employed per local unit per year
Average business size in transport services	Number of employed per local unit per year
Businesses with ISO 14001, EMAS II, Vision 2000 and SA 8000 certification	Number of businesses per quality certification per year

P3	***Capacity to cope with complexity***
The Sustainable District Logistics (SDL) approach is facilitated by: • Strategies at local level able to increase the capacity of the logistics stakeholders to anticipate changes and to cope with a large amount of problems finding solutions that can reduce uncertainty while evaluating and managing local / global interdependencies (flexibility of the local economic and social fabric, integrated programmes and common medium and long term projects supported by training and education on visioning methods, chaos and complexity theories, etc.).	

Therefore there is need to monitor basically the following courses of actions.

P03. Basic indicators for SDL	
Programmes directed towards sustainable development	Number per year
Training courses based on issues of sustainable development	Number per year

P4	***Enrichment of the local knowledge to create a cohesive multicultural environment***
The Sustainable District Logistics (SDL) approach is facilitated by: • Open interrelationships between different knowledge and cultures, considering both the current and future components of the local context and their probable impact on logistics processes (programmes for the emersion of black-market activities, exchange programmes with other local systems, projects on multicultural integration, labour and social insertion, etc.)	

Therefore there is need to monitor basically the following courses of actions.

P04. Basic indicators for SDL	
Programmes for emersion of black market activities	Number per year
Projects of multicultural integration and for labour - social insertion	Number per year

P5	***Discovery and re-encoding of the local specificities and knowledge***
The Sustainable District Logistics (SDL) approach is facilitated by: • Close interrelationships between the components of the concerned local context, considering different cultures and knowledge that can have an impact on logistics processes (number of endogenous companies, projects on local diversity recovery, cultural heritage, arts & crafts, oeno-gastronomy, agro-eco-natural tourism, economic and social diversification, etc.).	

Therefore there is need to monitor basically the following entrepreneurial features and courses of actions.

P05. Basic indicators for SDL	
Endogenous companies	Percentage over total businesses per year
Projects on local economic, environmental and socio-cultural diversification	Number and main contents per year

P6	***Ability to reach optimal levels of attainment and fulfilment of life***
The Sustainable District Logistics (SDL) approach is facilitated by: • Dialogical capacity of a territorial system to be simultaneously open and cohesive in order to create the knowledge preconditions for integrated logistics plans (interdisciplinary training and university courses on individual and collective empowerment, motivation and participation, etc.).	

Therefore there is need to monitor basically the following courses of actions.

P06. Basic indicators for SDL	
Training and university courses on environmental and social accounting	Number per year

P7	***Fractal distribution of responsibilities and competence***
The Sustainable District Logistics (SDL) approach is facilitated by a multi-level governance of the logistics processes, based on: • Integration of top-down and bottom-up approaches in decision-making at a territorial level (diversity of institutional characteristics in number of structures, distribution of responsibilities and power, etc.) • Integration between local and global dimensions (balanced responsibilities and co-operation between small and large transport and logistics companies, etc.) • Close interaction between economic actors, the society and the institutions (informal relationships and formal procedures of decision-making in public policies and programmes, etc.)	

Therefore there is need to monitor basically the following institutional features and courses of actions.

P07. Basic indicators for SDL	
Competencies and responsibilities assigned to local authorities	Number and type of policy field

P8	***Facilitating structure for autonomy and collaboration into the decision-making***
The Sustainable District Logistics (SDL) approach is facilitated by: • Collective identity of the local context where political institutions, civil society and citizens manifest different economic, environmental and social interests (participation at public budget allocation and shared responsibilities in public spending, mutual and co-operative collaboration between the logistics companies and their stakeholders, etc.)	

Therefore there is need to monitor basically the following institutional arrangements.

P08. Basic indicators for SDL	
New governance methods applied to plan and project implementation	Number of relevant cases per year and policy field

P9	***Primary reliance on the endogenous resources without compromising the ones of the others***
The Sustainable District Logistics (SDL) approach is facilitated by: • Collaboration between the local actors to utilise endogenous and exogenous resources in a synergetic way (common territorial marketing plans, locally based investments, exchange of good practices with other local contexts, pilot projects between universities, businesses, trade associations, etc.)	

Therefore there is need to monitor basically the following courses of actions.

P09. Basic indicators for SDL	
Joint territorial marketing plans	Number per year
Conferences with other EU local communities	Number per year

P10	***Shared value system***
The Sustainable District Logistics (SDL) approach is facilitated by: • Collaboration between the logistics stakeholders (businesses, public authorities, civil society and communities) in taking into account the economic, social, cultural and environmental values and interdependencies (programmes for public awareness raising, typologies of stakeholders involved in relevant local initiatives, committees, forums, inter-departmental groups, etc.)	

Therefore there is need to monitor basically the following courses of actions.

P10. Basic indicators for SDL	
Stakeholders involved in relevant committees, forums, inter disciplinary groups related to local development initiatives and plans	Typology and number of stakeholders per year

P11	***Social cohesion***
The Sustainable District Logistics (SDL) approach is facilitated by: • Networks of interpersonal relationships, common culture, sense of belonging, mutual trust between local operators and communities (role of the volunteer sector, socio-ethics funds, plans for urban renovation, social inclusion, employment, housing, etc.)	

Therefore there is need to monitor basically the following courses of actions.

P11. Basic indicators for SDL	
Local inclusion plans (housing, social transport, child care, immigrants, elderly, etc.)	Number per year and typology of target groups

P12	***Opportunity and room for fair interactions***
The Sustainable District Logistics (SDL) approach is facilitated by: • Interactions aimed at guarantying the rights to be parts and citizen of the local system through appropriate structures and services (logistics plans based on eco and fair trade with other local contexts, projects on equal opportunities between men and women, human and not-only-human civil rights, involvement in public spending management, etc.)	

Therefore there is need to monitor basically the following institutional arrangements.

P12. Basic indicators for SDL	
Centres for equal opportunities (e.g. women and men) and civil rights	Number and territorial coverage per year
Participation of immigrant groups in local government decision-making	Number of municipalities or statutory charters and resolutions per year

P13	***Capacity of creating shared visions of local development***
The Sustainable District Logistics (SDL) approach is facilitated by: • Courses of action based on long term strategic thinking, transdisciplinary co-operation between the logistics stakeholders, flows of knowledge and participative decision-making (territorial pacts and agreements, Local Agenda 21, environmental education plans, etc.).	

Therefore there is need to monitor basically the following courses of actions.

P13. Basic indicators for SDL	
Territorial development pacts and Local Agenda 21	Number per year

P14	***Integration of social and technical skills for innovative processes***
The Sustainable District Logistics (SDL) approach is facilitated by: • Integration of "tacit" (embedded in the local context) and codified (formalised learning methods) knowledge (professional, technological and business-orientated), as well as access to higher technologies to smaller businesses (training courses, connection with universities, inter-companies collaboration, stages and professional mobility, participatory planning for urban and rural renovation and development, etc.)	

Therefore there is need to monitor basically the following courses of actions.

P14. Basic indicators for SDL	
Vocational training courses that integrate social and technical skills	Number per year
Vocational training courses on logistics and transport	Number per year

P15	***Access to information and dialogue***
The Sustainable District Logistics (SDL) approach is facilitated by: • Information and debate on transport and logistics issues and processes to favour connective tissues between local actors, communities and institutions (transparent procedures in decision-making, acknowledgement of what decision can be really influenced by the citizens' participation, campaigns and projects for awareness raising, etc.)	

Therefore there is need to monitor basically the following courses of actions.

P15. Basic indicators for SDL	
Interactive communication networks with the citizens, e.g. e-government	Number and territorial coverage of e-networks per year

P16	***Existence of facilitators and animators of multiple interactions***
The Sustainable District Logistics (SDL) approach is facilitated by: • Local development agencies and agents to facilitate interactions between the logistics stakeholders through a knowledge flow aimed at capacity building (promotion of participatory spatial and logistics planning, joint projects on corporate social and environmental responsibility, networks of businesses innovation and support services, etc.).	

Therefore there is need to monitor basically the following courses of actions.

P16. Basic indicators for SDL	
Local development agencies	Number per year

The analysis of the Dynamics of a specific local context is aimed at answering the following question:

Which driving energies should be stimulated to produce changes in favour of SDL?

Therefore an overall deduction from information and data related to SDL *Orientation* and local *Social Potential* is useful to determine the indicators that concern the following 6 levers of transformation.

D1	***Enhancing problem understanding***
Changes in favour of Sustainable District Logistics (SDL) can be produced by: • Increasing the capacity of the logistics stakeholders to enlarge scope and perspective of analysis in order to nourish innovation and creativity that are based on social and environmental awareness and responsibility; this means, for instance, to consider the close interrelationships between organisations, territories, spatial and temporal dimensions	

D01. Basic indicators for SDL	
Existence of local initiatives towards innovation and creativity in logistics:	Yes / Not If yes, number and type of relevant cases

D2	***Open collective learning***
Changes in favour of Sustainable District Logistics (SDL) can be produced by: • Improving the capacity of the logistics stakeholders to acquire and utilise knowledge and know-how; this means to develop a culture of co-operation in several policy fields, for instance in spatial planning and territorial flows management	

D02. Basic indicators for SDL	
Existence of training courses, seminars and workshops to increase knowledge of logistics operators	Yes / Not If yes, number and type of relevant cases

D3	***Negotiation and co-decision***
Changes in favour of Sustainable District Logistics (SDL) can be produced by: • Improving the capacity of the logistics stakeholders to determine strategies that have the wider possible consensus; this means to develop a culture of participation, attributing, for instance, equal decision role to the different interest groups (economic, social and environmental)	

D03. Basic indicators for SDL	
Existence of round tables, joint committees and groups of logistics stakeholders for plans and projects development	Yes / Not If yes, number and type of relevant cases

D4	***Creation of a shared vision***
Changes in favour of Sustainable District Logistics (SDL) can be produced by: • Improving the capacity of the logistics stakeholders to think strategically in a long-term perspective; this means, for instance, to define transparent business and territorial purposes and to follow them with coherent organisational behaviours (missions)	

D04. Basic indicators for SDL	
Existence of inter-sectoral and integrated territorial plans decided with the involvement of logistics stakeholders	Yes / Not If yes, number and type of relevant cases

D5	***Client orientation***
Changes in favour of Sustainable District Logistics (SDL) can be produced by: • Improving the capacity of the logistics stakeholders to elaborate and perform eco-prosumerism strategies; this means, for instance, to create alliances between producers, consumers, local communities and suppliers taking into account the natural environment, the non human species and the future generation	

D05. Basic indicators for SDL	
Existence of codes and charters on transport and logistics management, which involve local stakeholders	Yes / Not If yes, number and type of relevant cases

D6	***Result orientation***
Changes in favour of Sustainable District Logistics (SDL) can be produced by: • Improving the capacity of the logistics stakeholders to assess constantly the outcomes of business and territorial plans; this means, for instance, to monitor client-satisfaction, stakeholders appreciation, performance costs and revenues, taking into account also the impacts of logistics on the environment, health and socio-culture in terms of styles of production, consumption and life	

D06. Basic indicators for SDL	
Existence of monitoring systems managed by logistics operators on stakeholder satisfaction, impacts on the environment, health and socio-culture	Yes / Not If yes, number and type of relevant cases

Following the methodologies presented in Chapters 1 and 2, the above-reported aspects of the SDL approach are used to perform both the appraisal and the design activities related to the concerned local contexts.

The number of SDL aspects (and indicators), which are employed to carry out the Local Context Analyses and to arrive at the hypotheses of innovative actions, depends on the specific characteristics of a local context and on the topics taken into consideration by the relative SDL project.

INNESTO project case studies

In the INNESTO project, all the 32 aspects were utilised in two case studies:

- A sustainable accessibility plan for the Casentino Valley (the case study in Italy), with six main hypotheses of innovative actions.
- Renewable energy and logistics in the region of Vega de Guadalquivir (the case study in Spain) with six main hypotheses of innovative actions.

The main reason why of the full utilisation of all the SDL aspects were due to the necessity of having an in depth and complete analysis of the territorial characteristics and logistics issues that concern several policy fields (e.g. governance, spatial planning, rural development, social services, employment and vocational training, corporate social responsibility, agriculture production and waste, urban structure and waste).

Other case studies of the INNESTO project required the utilisation of a selected number of SDL aspects, because they were orientated to a limited number of issues, for example:

- Virtual networks to increase transport efficiency in the region of Brabant (The Netherlands), where infrastructure is suffering from congestion and major transport flows are passing the region without adding value to the community; two main hypotheses of innovative actions were identified.
- Cross-border inter-modal cooperation between public and private actors in the region of Trier (Germany) in order to move towards a main hypothesis of innovative actions characterised by reduction in truck traffic and a better connection between inland navigation and railways.
- Global and local logistics among small and medium sized enterprises in the Viborg County (Denmark) where a wide range of relationships exists between the operators of an extended production chain linked to the furniture industry; two main hypotheses of innovative actions were identified.

CHAPTER 5: DISTRICT LOGISTICS ANALYSIS

After the completion of the Local Context Analysis, the following analysis focuses on the main characteristics of the logistics flows and the related business performances. This analysis, the District Logistics Analysis (DLA) based on the acquisition of data from local businesses through the uses of questionaires and interviews. DLA elaborates results that are correlated with the LCA hypotheses through integration and, if necessary, modification.

Generally, the procedures followed to carry out a District Logistics Analysis consist of:

- Selecting a sample of local businesses (likely different sectors of the District)
- Elaborating a questionnaire to examine logistics activities, costs and impacts
- Administering the questionnaires to the sample
- Collecting the questionnaires and elaborating the results
- Combining these results with those of the SDL / SWOT analysis of the Local Context Analysis, namely the main hypotheses of innovative actions
- Suggesting hypotheses that combine eco-efficiency, businesses and territorial processes to reduce logistics costs and resources consumption both at a business (mid – term perspective) and a territorial (long - term perspective) planning
- Correlating the DLA findings with LCA hypotheses of innovative actions.

Questionnaires should be formulated according to the specific issues emerging from each SDL project with relation to the particular features of the examined local context. They are therefore flexible and focused on:

- Logistics flows (materials, energy, information, goods, people) and costs
- Logistics management and costs from *Input* (sourcing, storage, transport), to *Transformation* (resource planning, handling, storage, utilisation, packaging, inventory management, transport), to *Output* (physical and virtual distribution; warehouses; stores; transport), to the *Utilisation* of products (looking specifically to the reduction, re-utilisation, recycle and discharge of waste and materials along the life cycle of a product)
- Business organisation and costs (e.g. profit and loss account, statement of economic assets and liabilities)

A wide variety of questionnaires can be formulated, as demonstrated by the local case studies involved in the INNESTO project, looking for instance at:

- product type (e.g. raw materials, subsidiary materials, consumables and goods), amount in tonnes, transport mode, transhipment nodes, load types and distance
- supply, distribution and reverse logistics and the logistics of refusal and wastes of the production
- origin and destination (e.g. pre-identified locations or open-ended answers)
- transport quantities and business performances per year and period (e.g. last five years)
- total transport and / or specialised transport
- inter-modal transport and potentials for modal shift
- parameters to measure customer satisfaction towards logistics services
- company profiles (e.g. mono-sectoral or multi-sectoral typologies; industry, agriculture and services firms; transport and logistics businesses)
- sale and distribution features (e.g. to different or general customers)
- benchmarking of company performances (e.g. statements of assets and liabilities; profit and loss accounts) towards SDL development
- future trends (e.g. environmental improvement and reduction in logistics costs)

Specific forms can be constructed using the "SDL.development" system to support the District Logistics Analysis, considering both the questions and the indicators utilised to answer the questions.

Data gathered to quantify each indicator are stored in the "SDL.development" system in order to make appropriate calculation on ratios and percentages, as well as other statistical elaborations.

Other specific tools can be created and inserted within the "SDL.development" system to support elaboration of data regarding a SDL project.

For instance, during the INNESTO project, a protected excel-file was created to allow practitioners and researchers to estimate flows (regarding supply, distribution, reverse, refuse/waste logistics), Pkm and Tkm, emissions and socio-environmental costs through calculations based on data collected both with a questionnaire and from previous enquiries. This tool is adaptable to local contexts characterised by a scarce information on key features taken into account by the SDL approach.

INNESTO project: example taken from the Northern Brabant – The Netherlands – case study

LOGISTIC FLOWS

The transport sector in Northern Brabant can be structured in different ways, for example commodity groups, transport in and outside the Netherlands and different modes of transport.

Commodity Groups.

In Table 1 a division is made of the different commodity groups. In this chart the total transport modes are split into different commodity groups. As you can see, building minerals & material, Machinery & other manufacturing and Foodstuffs account for more than 70 percent of the total goods transported.

Table 1

Commodity Groups Northern Brabant

Ores, metal waste	2%
Metal products	3%
Crude oil	0%
Solid mineral fuels	1%
Foodstuffs	20%
Agricultural products	10%
Petroleum products	2%
Machinery & other manufacturing	21%
Chemicals	8%
Fertilisers	3%
Building minerals & material	30%

Table 2

Transport within the Netherlands with origin or destination in Northern Brabant.

(in Ton)		
	Origin	**Destination**
Groningen	838055	716216
Friesland	504346	1005445
Drenthe	388774	864795
Overijssel	1142438	1898685
Gelderland	5831448	7572344
Flevoland	1014398	855702
Utrecht	1720460	2730845
Noord-Holland	4605117	4429252
Zuid-Holland	8086176	10494272
Zeeland	3131971	2101586
Limburg	9969794	5829135

Noord-Brabant

Total transport in Northern Brabant (ton)	173726563
Total transport within Northern Brabant (ton)	53729036
Percent within Brabant/total Brabant	31%

As can be seen in Table 2 a large amount of the goods transported to Brabant from another province are coming from the provinces Zuid-Holland and Limburg. This is due to the Port of Rotterdam being situated in Zuid-Holland Limburg is situated next to Belgium and more importantly Germany. The majority of the goods transported from Brabant to another province have their destination in Zuid-Holland (also due to the Port of Rotterdam) and Gelderland.

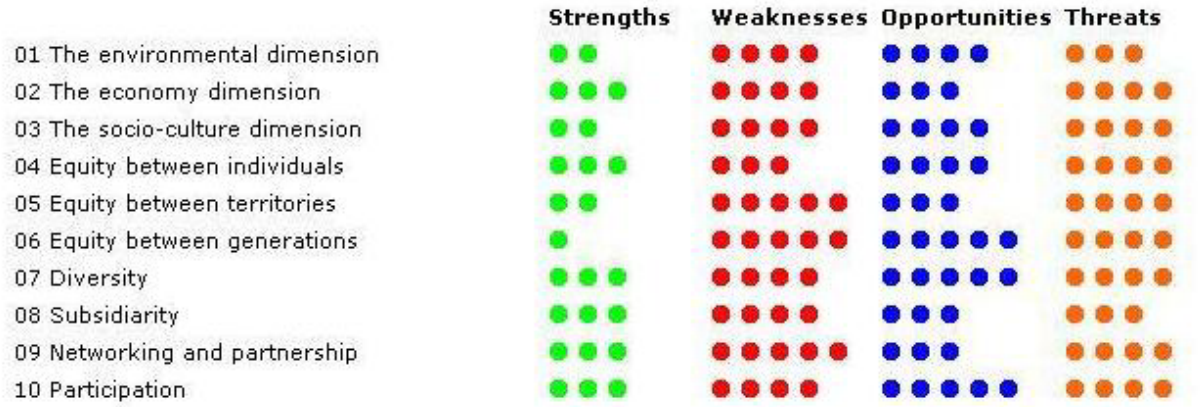
A large amount (31 percent) of the total transport in Brabant stays in Brabant. Of this amount 34 percent consists of the transportation of Building minerals & Material and 23 percent consists of the transportation of Machinery & other Manufacturing equipment(see Table 3)

A SDL / SWOT analysis can be utilised to summarise the results of the District Logistics Analysis (DLA) and to correlate these results with those emerging from the Local Context Analysis (LCA).

INNESTO project: example taken from the Casentino – Italy – case study

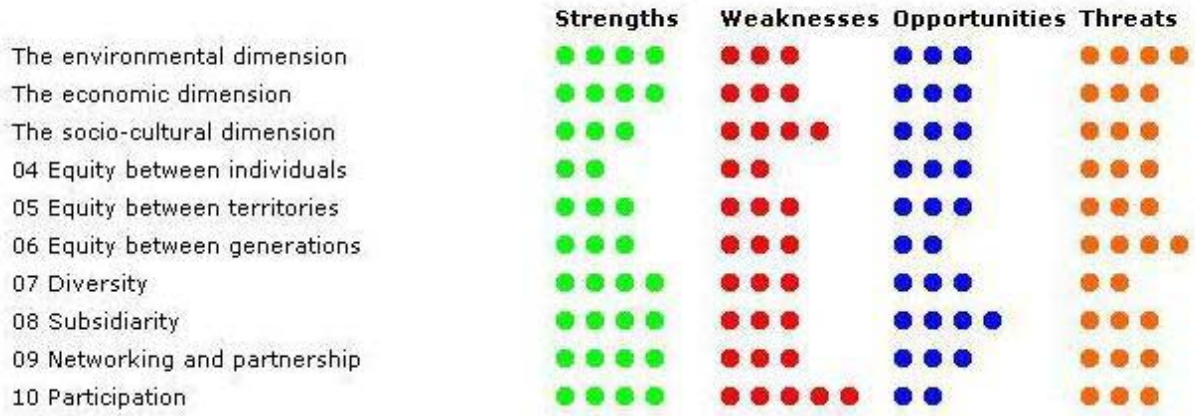
DLA - Summary Orientation

The District Logistics Analysis provided the following profile that concerns the companies interviewed between June and September 2003.



LCA - Summary Orientation

Compared to the regional profile resulted from the SDL / SWOT analysis of the Casentino Valley (see below), some differences emerge revealing: less Strengths and more Threats; more Weaknesses and Opportunities.



Comparison between the results of the SDL / SWOT analyses carried out in the Local Context Analysis (LCA) and in the District Logistics Analysis (DLA) refers to 10 SDL Orientation aspects (see Chapter 2). DLA can also be used to examine the business performances of a sample of companies to evaluate their orientation towards the SDL approach according to the following descriptors.

Sustainable District Logistics (SDL) orients the corporate strategy towards:

O1 Environment
- Reduction and optimisation of natural resource consumption (energy, soil, water, fuel, etc.)
- Reduction, re-utilisation and recycling parts of products, semi-products and wastes
- Pollution prevention and reduction
- Diffusion of new clean technologies, eco-efficient means and modes of transport
- Utilisation of renewable sources of energy

O2 Economy
- Reduction of the material, energy and transport flows with the related costs, including those concerning negative impacts on the environmental, work and social conditions
- Investments for improving corporate quality
- Investments in Information and Communication Technology to provide efficient customer services, rationalising logistics and substituting physical transport

O3 Socio-Culture
- Promotion of sustainable styles of production and consumption
- Investments in human capital, innovation, research and studies
- Investments for improving the corporate social quality

O4 Equity between individuals
- Improvement of management, work conditions and organisational behaviour (e.g. equal opportunities between women and men, eradication of any types of discrimination, health and safety)

O5 Equity between territories
- Contribution to a balanced interlocal development through fair and solidarity relationships and alliances between entrepreneurs of different territorial areas

O6 Equity between generations
- Investments in research and studies looking at the future generations

O7 Diversity
- Innovation and diversification considering local identities and fabrics (biodiversity, habitat, socio-cultural heritage, economy vocations, small and medium sized enterprises)

O8 Subsidiarity
- Contribution to a balanced local development, reducing the spatial range of material flows
- Contribution to the local communities empowerment, integrating top-down (global dimension) and bottom-up (local dimension) approaches

O9 Networking / Partnership

- Investments in social capital (associations and networks) and alliances between businesses and environmental, socio cultural, ethical organisations
- Networked organisations (e.g. consortia between businesses, co-operation between private, public and social sectors)

O10 Participation

- Improvement of the relationships between the firm and the stakeholders constellation, taking into account new points of view, cultures, interests and behaviours
- Information, animation and facilitation

Based on the above-mentioned "descriptors", a benchmarking tool was created within the "SDL.development" system to allow companies to understand the orientation of their business strategy towards SDL.

Their sensitive data, extracted from the ordinary balance sheets and integrated with other specific information through a questionnaire available in the "SDL.development" system, are classified in two sections:

- PLEASE (Profit and Loss Economic Account with Social and Environmental dimensions);
- SEALES (Statement of Economic Assets and Liabilities with Environmental and Social dimensions).

Data elaboration is made classifying the specific voices of the balance sheet according to their relevance and appropriateness in relation with the following SDL Orientation aspects:

- in the case of turnover (Profit and Loss Account) the aspects concerning the environmental, socio-cultural and economic properties assigned to the value created
- in the case of all business costs (Profit and Loss Account) all the 10 aspects
- in the case of the Statement of Assets and Liabilities, 6 aspects with the exclusion of Equity between individuals, Equity between territories, Equity between generations and Diversity.

The results of the data elaboration are expressed in percentage values (SDL indices) in order to make it possible an easy comparison between the different profiles.

The following tables show the methodology of classification of the company data.

O1: Environment	
Voice of the Profit & Loss Account	Voice of the Statement of Economic Assets & Liabilities
Turnover: - estimate of the ecological property attributable to the revenues from products and performances *Production costs*: - purchases of raw materials, subsidiary materials and goods that are recyclable, recycled, substitutive of dangerous materials - goods and services acquired from environmentally responsible firms (e.g. ISO 14001, EMASII) - production expenses related to the utilisation of renewable and recycled resources (energy, water, etc.) - commercial expenses and charges concerning logistics and transport systems with environment saving - commercial expenses and charges concerning re-usable and recycled packaging - leasing expenses for systems of environmental protection	*Tangible fixed assets*: - systems for energy saving and efficiency - systems for water saving, efficiency and recycle - systems for minimising greenhouse emissions - systems for recovering and recycling of refusals, discards, used products, etc. - systems for lowering ground pollution - bio-buildings, of which warehouses - warehouse machineries with low environmental impact (energy, noise, pollution, etc.) - warehouse equipments with low environmental impact (energy, noise, pollution, etc.) - warehouse vehicles with low environmental impact (energy, noise, pollution, etc.) - systems to reduce packaging - means of transport with low environmental impact (energy, noise, pollution, etc.) *Intangible fixed assets*: - environmental quality certifications and marks

O2: Economy	
Voice of the Profit & Loss Account	Voice of the Statement of Economic Assets & Liabilities
Turnover: - total revenues from products and performances, of which only with estimated economic property *Production costs*: - total purchases of raw materials, subsidiary materials and goods - total production expenses - total commercial expenses and charges, of which for warehouse service, transport service, packaging - total administrative and overheads expenses, of which for customer services (and electronic commerce), risk assurance for warehouse and transport, duties and taxes for the environment, waste, water, etc., penalties for lacked respect of social and environmental norms) - total leasing expenses - total labour costs, of which for transport, warehousing and customer services - total amortisation of investments in tangible assets (of which for warehouses and transport) and reserves (of which for transport and warehouse risks)	*Total tangible fixed assets*, of which: - lands assigned to warehouse areas - warehouses - warehouse machineries - warehouse equipments - warehouse vehicles - means of transport - technologies for electronic commerce *Total intangible fixed assets*, of which: - economic quality certifications and marks *Total financial fixed assets* *Inventory (stock value)*: - final surplus of in working, semi-finished and finished products - final surplus of raw materials, subsidiary materials, consumables and goods

O3: Socio – Culure	
Voice of the Profit & Loss Account	Voice of the Statement of Economic Assets & Liabilities
Turnover: - estimate of the socio-cultural property attributable to the revenues from products and performances *Production costs*: - production expenses for research, tests, training, books, newspapers and magazines, socio-cultural initiatives, etc.	*Intangible fixed assets*: - social quality certifications and marks

O4: Equity between individuals
Voice of the Profit & Loss Account
Production costs: - goods and services acquired from firms socially responsible (e.g. SA8000) - production expenses for improving work organisation, behaviour, motivation, social relations

O5: Equity between territories
Voice of the Profit & Loss Account
Production costs: - commercial expenses and charges for fair trade

O6: Equity between generations
Voice of the Profit & Loss Account
Production costs: - production expenses for studies concerning appraisal and assessment of environmental, economic and socio-cultural impacts

O7: Diversità
Voice of the Profit & Loss Account
Production costs: - production expenses for studies concerning economic, environmental, socio-cultural diversification and innovation

O8: Subsidiarity	
Voice of the Profit & Loss Account	Voice of the Statement of Economic Assets & Liabilities
Production costs: - goods and services acquired from local firms	*Financial fixed assets*: - participations in local production and consumption networks (e.g. purchase groups) - participations in organisations (networks) for responsible consumption

O9: Networking / Partnership	
Voice of the Profit & Loss Account	Voice of the Statement of Economic Assets & Liabilities
Production costs: - administrative and overhead expenses concerning subsidies for associations of economic, socio-cultural, environmental interests - amortizations of investments in financial assets related to participations in firms, association, funds, networks	*Financial fixed assets*: - participations in firms and associations of an economic nature - participations - donations in firms and associations involved in environmental and socio cultural issues - participations in ethical and green funds

O10: Participation	
Voice of the Profit & Loss Account	Voice of the Statement of Economic Assets & Liabilities
Production costs: - commercial expenses and charges for operating social and environmental marketing - amortizations of investments in intangible fixed assets related to quality improvement and business promotion	*Intangible fixed assets*: - strategic environmental marketing - strategic social marketing - strategic economic marketing

Results are automatically calculated in the benchmarking tool of the "SDL.development" system in order to report percentage values (SDL indices) of the business performances and to facilitate the comparison between the different profiles.
The results can be stored in an aggregated manner that ensures the anonymity of the companies and presents the range for each of the 10 SDL Orientation aspects and per main sectors of activities in the concerned local context.
Specific forms are utilised to input the above-mentioned results (see the example below).

PLEASE = Profit and Loss Economic Account with Social and Environmental dimensions

Production costs

Orientator | Percentage range

O1. Environment

Industry % range (from | to)	2,61	53
Agriculture % range (from | to)	10,32	62,67
Services % range (from | to)	0	0

O2. Economy

Industry % range (from | to)	30,08	97,06
Agriculture % range (from | to)	19,91	83,91
Services % range (from |to)	98,75	100

O3. Socio-culture

Industry % range (from | to)	0,02	1,30
Agriculture % range (from | to)	0	0,14
Services % range (from | to)	0	0

O4. Equity between individuals

Industry % range (from | to)	0,07	0,46

The results are presented in a easy readable reports (see the following example).

SEALES = Statement of Economic Assets and Liabilities with Environmental and Social dimensions

Investments | Percentage range		
O1. Environment		
Industry % range (from | to)	8,6	11,29
Agriculture % range (from | to)	0	24,93
Services % range (from | to)	0	25,8
O2. Economy		
Industry % range (from | to)	79,51	85,74
Agriculture % range (from | to)	74,76	100
Services % range (from | to)	65,96	99,98
O3. Socio-culture		
Industry % range (from | to)	0	0,15
Agriculture % range (from | to)	0	0
Services % range (from | to)	0	0
O8. Subsidiarity		
Industry % range (from | to)	0	0,14
Agriculture % range (from | to)	0	0
Services % range (from | to)	0	0
O9. Networking and partnership		
Industry % range (from | to)	0	2,7
Agriculture % range (from | to)	0	0,31
Services % range (from | to)	0,02	8,24
10. Participation		
Industry % range (from | to)	5,66	6,21
Agriculture % range (from | to)	0	0
Services % range (from | to)	0	0

CHAPTER 6: LOCAL SCENARIO WORKSHOP

The use of scenario workshops in a SDL project aims to develop a shared vision and common paths on the future development (e.g. 15-year perspective). The results should refine and reinforce the main hypotheses of innovative options developed in the Local Context Analysis and in the District Logistics Analysis. According to the SDL approach, a scenario is an overarching picture of future development while simplifying, verifying and integrating the hypotheses of innovative actions at business and territorial levels

The scenario workshops were originally developed in the EU project: Fleximodo. This methodology has been utilised in different designs within the fields of logistic- and transport research in Denmark, see for instance: Drewes Nielsen, L. & Gjesing Hansen, L., "Involving Citizens in Sustainable Development: Scenario Workshop on Sustainable Mobility", *Journal of Advanced Transportation*, vol. 31, no. 2, 1997; Drewes Nielsen, L. & Homann Jespersen, P. "The Use of Action Research Methods in Scenario Construction", Sevilla Workshop, Institute for Prospective Technologies – EU Joint Research Centres - IPTS, May 2003).

Topics like 'Future city logistics', 'Future intermodal transport' and 'Future Freight Transport Structure in Europe' have all been themes for scenario workshops.

The scenario workshop consists of two methods: Qualitative scenarios and a workshop.

Qualitative Scenarios

Qualitative scenarios and their function can be defined as: "Scenarios try to describe some hypothetical series of occurrences. By using a relatively comprehensive scenario, the analyst is able to bring forth occurrences and turning points demanding a critical choice. Afterwards these turning points can be examined more or less systematically. However, the scenarios should not be used to 'prove' anything. They are literary and educational aids rather than tools for rigorous analysis. They should be used to stimulate, illustrate and learn, they should provide us with precision and richness in communication and to check details" (Selstad, T., *Med krystallkule og computer. Prognoser og scenarier i samfunnsplanleggingen*. Universitetsforlaget, Oslo, 1991).

The process of building scenarios begins with the identification of driving forces, the forces that influence the outcome of events: "Thus, in writing scenarios, we spin myths – old and new – that will be important in the future … These myths in scenarios help us come to grips with forces and feelings that would not otherwise exist in concrete form. They help us describe them, envision them, bring them to life – in a way that helps us make use of them" (Schwartz, P, *The Art of the Long View. Planning for the Future in an Uncertain World.* John Wiley & Sons, England, 1999).

The second methodology is the Workshop. The workshop is inspired by the methodology developed by Jungk and Mullert (Jungk, R. & Norbert R. M., *Håndbog i Fremtidsværksteder. København: Politisk Revy,* 1984) called the future workshop. The Future Workshop is a mix of three methodologies:

1. An action oriented approach where the local actors are involved in the processes of change and development.
2. The workshop is facilitated in keeping specific rules of supporting creativity and communication
3. The workshop is facilitated in keeping specific rules of communication in order to create equalised communication and eliminate the influence of power relation in the communication between the actors.

Preparation of the Workshop

The preparation of the workshop and the design of the process of facilitating the workshop are of the highest importance.
It contains at least the following steps:

1. Selection of theme
2. Selection of time and place (two days, continued or separated)
3. Selection of participants (20-30) for the workshop
4. Invitation letters
5. Facilitator training
6. Writing protocols
7. Follow up activities

The Workshop

The workshop is organised as a shift between plenum and group sessions. All is documented on wallpapers where the facilitators write the spoken sentences down in the plenary sessions. Also the group work is presented and commented by using wallpapers. The wallpapers are the main input to the protocol, which is delivered to the participants after the workshop. The protocol can also contain pictures from the workshop in order to recapitulate the memory of the atmosphere and the participants of the workshop.

After the introduction to the workshop and the presentation round of the participants in the workshop, phase 1 of the workshop starts.

Phase 1. Phase of Critique.
The headline of this phase is:

We are consequently negative

The phase is run as a brainstorming, following three principles:

- short statements (will all be written on the wall papers by the two facilitators)
- no discussion of statements
- all negative statements are allowed

After the brainstorming phase, each participant is asked to vote for the theme they find most important. They normally have 3 or 5 votes each to be put all on one statement on the wallpapers or to be put on several statements.

After the voting the facilitators count the points and form a list of prioritised themes. The most 4-5 prioritised themes forms 4-5 visualising groups. After a short group work (10 minutes) the visualising groups present their theme (with no use of words) in plenum. The plenum reflects about the visualising and the reflected words are written on the wallpapers.

Phase 2. Phase of utopia
The headline of this phase is:

'*Reality is out of function. We are situated in a perfect world, where everything is possible'*

The phase is running following the same principles as phase 1 through brainstorming and again following three principles:

- short statements (will all be written on the wall papers by the two facilitators)
- no discussion of statements
- all statements are allowed

After the brainstorming the participants are asked to vote for the theme they find most important. They normally have 3 or 5 votes each to be put all on one statement on the wallpapers or to be put on several statements.

After the voting the facilitators count the points and form a list of prioritised themes. The most 4-5 prioritised themes forms 4-5 utopia groups. The main purpose in the utopia group is to develop the utopia and include as many relevant ideas from the brainstorming as possible.

After a longer group work the utopias are presented in plenum and reflected.

Phase 3. Phase of realisation
The headline of this phase is:

'We keep our wishes and dreams, how can they become reality'

The phase of realisation can be divided into two parts.

Part 1. Presentation of a project results. The SDL project analyses is presented. The local groups decide what kind of results. It is important that a future orientation is included, like driving forces, scenario dimensions, strategy of action etc.

Part 2. Realisation groups. The Utopia groups continue their work of bringing the utopia orientations closer to reality. As a tool to improve this process they are asked to draw timelines and place major events on the timelines to bring the development in direction of the utopia. Events could be regulation, planning, market driven development, changes in production and consumption, changes in technology, globalisation patterns, etc.

After a longer group work the results of the time lines is presented in plenum and reflected here.

Phase of vision-making in the Danish case

Results of the scenario workshop

The results of the scenario workshop are:

- A typed protocol of the wallpapers is handed out to the participants within two weeks after the workshop. It will often also include photos of the workshop. The protocol forms the main common data platform for further analyses and shared knowledge.
- The research team analyses the results of the workshop by focusing on the utopias, their foundation in the critics and their influence on the scenarios and the future events/actions
- The results can be used in future scenario building in the local regions
- The results can be evaluated and compared to other "SDL.development" tools
- The results from the different projects can be a platform for comparative studies of future sustainable district logistics across the SDL projects
- The results can be a platform of producing new knowledge about actor involving methodology in a regional/local context

The flexible utilisation of the SDL / LSW methodology

The above-mentioned procedures should be utilised in a flexible way according to the main hypotheses emerged from the Local Context Analysis (LCA) and the District Logistics Analysis (DLA), as well as according to the cultural characteristics of the concerned territory.

This criterion was confirmed by all the INNESTO project cases studies, where the LSW methodology was adapted to the specific context of the case study and in most cases carried out in one day.

INNESTO project case studies: Local Scenario Workshops
The main hypothesis of the LCA and DLA were presented to the participants and used to draw a picture of the situation in the regions and thereby used as a reference during the workshops. The Danish and Italian LSW's used a structure with "phase of critique", "phase of vision-making" and used backcasting techniques in the "phase of realization". In the Spanish case study, the LSW management was simplified to perform the three phases (criticism, utopia and realisation) through a summarised version of the six main hypotheses of innovative actions derived from the LCA and correlated to the DLA results . The Italian research team decided to briefly introduce the participants to the purpose of the INNESTO project but not to introduce the results of the LCA and DLA until the second of two sessions. Thereby allowing the participants to identify problems and solutions without influence from the research team looking at the future of the Casentino Valley. The backcasting technique was adapted to a SDL / SWOT performed by the participant stakeholders. In a plenary debate, these results were compared with those stemmed from the SDL / SWOT analyses carried out during the Local Context Analysis and the District Logistics Analysis In the Danish LSW the session started with a brief presentation of the INNESTO-project, the partners and the key findings of the DLA in Viborg County. The participants were divided into groups and asked to relate their visions to a scenario for year 2030. The participants were asked to imagine a future scenario for 2030 where the utopias had become reality. In this phase, the participants debated which actions needed to come through and which stakeholders had to be involved in realising the visions. The Dutch and German LSW's were less structured and primarily organised as thematic workshops. The LSW's were performed to work out a platform for cooperation and concrete action plans in relation to the results of the Local Context Analysis (LCA) and the District Logistics Analysis (DLA), including to a certain extent the results of the SDL SWOT analyses.

CHAPTER 7: SDL.DEVELOPMENT SYSTEM

The "SDL.development" system is an Internet-based collaborative instrument for supporting SDL projects. It has been designed to cover the whole cycle of a project from its initial design to its final evaluation and to include a sufficient variety of highly usable tools so as to be useful for involving a wide variety of actors – from the logistics expert to the interested citizen.

The aim of the "SDL.development" system is to facilitate the handling of complexity in Sustainable District Logistics projects: The SDL concept involves a multi-actor and multi-dimensional approach to regional transport problems: involving private and public actors in looking at different dimensions of logistics in a specific region.

Users accede to "SDL.development" system over the Internet with a usual browser, using a personal password – no special installation is required.

The central structure of "SDL.development" system is a tree of tasks. Each task can be administrated and attributed to responsible persons as in conventional project management. The actual work on the contents of an SDL project is embedded in these tasks. Each task can contain forms, reports and special editing tools for entering, extracting and treating quantitative and qualitative information in a very flexible manner.
All data is stored on a central server. A sophisticated user management ensures that every user can only see and do what he has been allowed for. The SDL analysis framework and the sequence of main tasks in a typical SDL project have been translated into this basic technical structure. Online forms are used for making qualitative SDL assessments and for collecting quantitative date at different stages of the project. Editing tools and reports are used for treating information and presenting results.

Despite being a web-based tool, SDL.development has been conceived as a participation tools which requires the involvement of a wide variety of actors. E.g., reports can be defined as visual input for workshop sessions, and the qualitative results of collective assessments on the pin-board can be entered in appropriated forms so as to be used in subsequent steps.

SDL.development is using advanced internet technologies. Recently it has been transferred to a new technical platform (ez) which opens large opportunities for further refinement and XML-based connection to other software.

The central structure: a tree of tasks

From the point of view of the user, SDL.development is structured around a tree of tasks. A new SDL project will contain a standard task collection which can then be modified according to specific needs. The predefined main tasks correspond to the SDL approach. Each of these main tasks can contain a large number of sub-tasks on different levels. The following figure shows the tree tool for navigating in this task structure:

1. Local context analysis (LCA)
1.1 Main indicators
1.2 SDL Analysis
1.2.1 ORIENTATION
2. District Logistics Analysis (DLA)
3. Strategy Development (STD)
4. Programme Development (PRD)
5. Programme Implementation (PRI)

Details	Edit	New	Delete

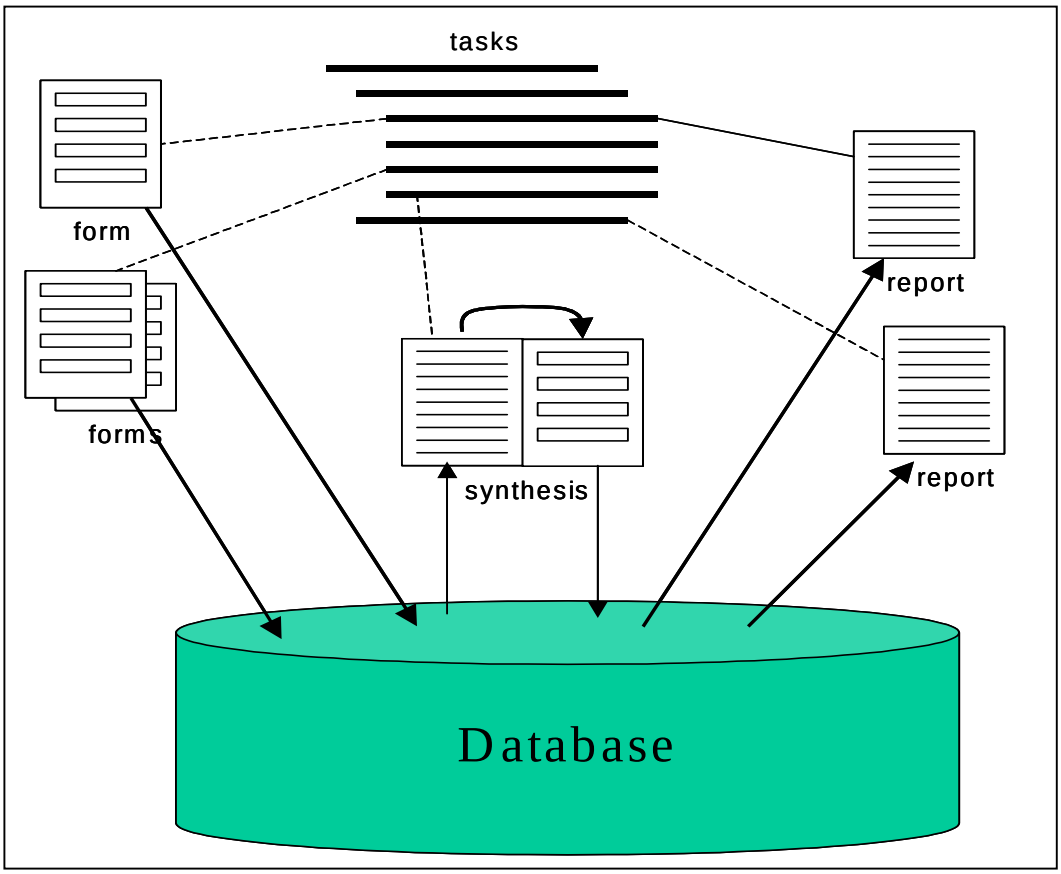
Clicking on a specific element selects it and opens the level below. Clicking on a grey button starts an action concerning the selected orange element.

Working with forms and reports

Forms are used for putting information into the system. Reports for retrieving information already inserted. Both can be defined in a very flexible way using special tools. Forms and reports can draw on all information that has been stored – provided that the user has the right to read them.

If a form is used as a questionnaire addressing a number of people, a synthesis of the results is necessary: for quantitative answers this can be done in automatic report. For the synthesis of qualitative answers active editing is necessary – SDL.development provides the necessary tool.

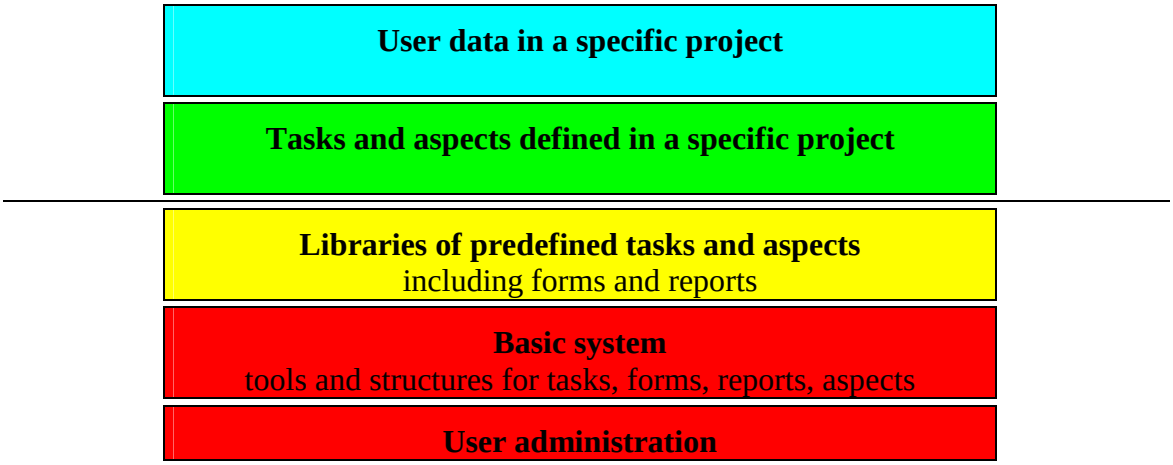
Predefined forms and reports are available in standard libraries. Project managers and their aides may modify them or create new ones. People providing information and judgements just use the forms and reports.



Task Libraries: a growing wealth of experience

The experience of the INNESTO project has been compiled in a library containing a standard tasks tree and the task trees of the pilot projects.
They include all required forms and reports. Future projects can utilise these results as a basis for the construction of a new SDL analysis. In order to facilitate such a process of collecting and sharing experience, SDL.development is organised in different layers.

The layers below the horizontal line are common to all projects. The layers above are project-specific – however, they can be made accessible to others. The SDL network will have to play an important in role in organising the process of collecting and sharing experience with this tool, ensuring that the level of reliability and quality is increasing.



User Management

Every user has to identify him/herself with a personal password. Rights for creating, editing and reading information and structures can be attributed in a very differentiated way down to single data. Defining user groups at different levels, an efficient and decentralised governance over the whole system is possible which guarantees high levels of data security and of confidentiality where requested.
Typically, a key collaborator of the project manager will have far-reaching rights in his area of responsibility including the definition of new tasks, forms and reports. A partner in a public institution may get an overview over the whole project and the specific task of filling in a series of forms. An “invited visitor” may only have access to a specific form for giving his judgement on a single issue. To assure information confidentiality: single users may enter data which are only accessible to one person who is responsible for the synthesis of an inquiry.
The user management also includes the control of licenses for using this tool. Definable limitations for the number of tasks in a project etc. correspond to a license model that allows for commercial exploitation of this fully internet-based tool.

Instructions for using the SDL.development system to insert data from the LCA, DLA and LSW

Enter into "SDL.development" system using the appropriate password and username.
Select the project that you are interested in "Select project".

Create a Task
Tasks are the actions that organise the entire data entry or modification activity. Within the programme, you will find a Task already created for the LCA.
To create a new task for the DLA and LSW, click on the NEW button. At this point a new window will appear that requires a code and other fields. You have only to write a name that you want to give to the task. No other elements should be filled in. therefore, insert a Name and leave empty all the other fields. Confirm the name with the button "SEND FOR PUBLISHING".

Create a sub-task
You can create a sub-Task to this first principle task, by selecting this first task and inserting a second task by following the same procedure as above: click NEW and insert only a name; then confirm with "SEND FOR PUBLISHING"; the task in which you are going to work (in this case inserting a new task within the main task) will appear in dark red.
For each Task, you need to set the order by using the SET ORDER button in the upper right. Once you have created the Task and organised the hierarchy of activities within the Task you can create a questionnaire (called FORM) in order to insert the data concerning your case study.

Create a FORM (questionnaire)
To create a questionnaire, click on the Task in which you wish to insert a questionnaire (the selected Task will become dark red), click on "DEFINE FORM". This will open a new window, in which you must select a name but not the code. It will appear also a sub-window (called DESCRIPTION) appositely created to allow you to insert information writing a text or copying and pasting text from other documents if necessary.
Click the STORE DRAFT button to check if everything has been inserted as you want and make the needed modifications suggested by system. Then confirm clicking on the button "SEND FOR PUBLISHING".

For each FORM (questionnaire), you can choose different structures using the window TYPE and selecting the option that best fit the information you are going to store. The given FORM structure can be modified by clicking on MODIFY.
Once created, the structure must be filled and data inserted. To do this, click on "FILL FORM" and insert the necessary data. The FORM can be constructed using phrases and information from other files (e. g. DLA reports) by using the COPY-PASTE option. You should save the data occasionally to make sure that the data is being registered properly.
Once the FORM has been filled and its contents saved, it is NOT possible to change the structure.

Very simple criteria are recommended to create the FORM fields: the fields will appear in terms of columns and rows.
Each must only contain pure number without explanations.
The latter can be written in the question that you write as the NAME of the FORM.
See the following examples:

- CO2 production: all modes (tonnes) | year	87.457	2001
- CO2 production : rail (tonnes) | share of total (%)	1.686	2
- CO2 production : road (tonnes) | share of total (%)	85.771	98

When the FORMS are completed and the data has been inserted, it is possible to produce a REPORT.

Create a REPORT
The Report is created by clicking on the Task of which the Report must be produced (the Task will become dark red), then click on DEFINE REPORT.
This will open a new window, in which you must select a name but not the code. It will appear also a sub-window (called DESCRIPTION) specifically created to allow you to insert information, writing a text or copying and pasting text from other documents if necessary.
At that point, click on the STORE DRAFT button to check if everything has been inserted as you want and make the needed modifications suggested by system.
Indeed, the Report, like the FORM can utilise text from other files using the COPY-PASTE function. Make sure that the information inserted is correct.
To include into the Report the information from the already created FORMS, click on the button of the window QUESTION and choose the FORM that you want to insert.
This information from the FORM will be automatically inserted into the Report.
Then confirm clicking on the button “SEND FOR PUBLISHING”.

A general utility
At the bottom side of each page of the system there are useful buttons:
- EDIT; it serves to come back into each TASK to change parts that are allowed to changed; after the modification, once again “SEND FOR PUBLISHING”
- NEW; it serves to create TASKS and new parts of a FORM or a REPORT
- REMOVE; it serves to remove what was elaborated in a specific TASK; this option should be used very carefully, indeed it requires CONFIRM

In some pages, there is a DISCARD button near to STORE DRAFT and SEND FOR PUBLISHING. The DISCARD button serves to eliminate the last operation coming back to the previously utilised page.

In some pages, there is the BACK TO TASK button to come back to page where all the TASKS appear in a hierarchal structure.