(INstruments and NEtworks for developing logistics towards Sustainable Territorial Objectives)

Contract n° EVG1-CT-2001-00054

Local Context Analysis of

"The Casentino case study"

Contents	

Written by
Filippo Strati and Steven Loiselle (SRS) and Riccardo Pozzi (Province of Arezzo)

with the contribution of
Anna Maria di Paolo, Angelo Falsini, Silvia Farini, Leonardo Giorni, Ludovico Susani, Rosalinda Nardi, Paola Paradisi, Claudio Pozzi, Fortunato Fognani, Nora Banchi, Elena Lunghi (Province of Arezzo) and Marta Franci (SRS)

Project home page: www.districtlogistics.net

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1. Executive summary

The productive system of the Casentino area is prevalently constituted by SMEs in all sectors (from agriculture and industry to services). It has demonstrated a high capacity for innovation and has a good relationship with the European and international markets. Although the environmental situation is reasonably intact (in comparison to other Italian areas), problems have arisen in relation to traffic and congestion.

The results of the Valley wide SDL/SWOT analysis led to a central working hypothesis: the elaboration of a Casentino "**Sustainable accessibility plan**", an integrated plan to increase accessibility of the Valley inhabitants to goods, services, people and places, without compromising the territorial integrity (social, environmental, economic).
Nearly 30 local projects (e.g. Leader, Life, municipal network, wind park-energy, methane pipeline, wool and wood production, road and rail infrastructures) and plans (e.g. economic development, rural and agricultural areas, social and health services, spatial planning, waste management) were analysed considering their impacts both on territorial systems and logistics.
Next information to quantify a series of 125 indicators (related to the 32 aspects of the SDL approach) was collected and analysed. Estimates were produced when appropriate data were not available.
The two analysis approaches were integrated and corrected several times to construct a Regional Profile, where the main characteristics of the Casentino Valley are evaluated in terms of strengths, weaknesses, opportunities and threats.
The results of the analysis were utilised in order to identify hypotheses that favour an improvement to the current territorial logistics system, moving toward a more sustainable approach, using each of the 32 aspects of the SDL approach.
These individual hypotheses were combined according to the SDL methodology with the aim of arriving at a cluster of innovative options to be further considered by the local stakeholders (governments, citizens, civil society and businesses) for the elaboration of a Casentino "Sustainable accessibility plan".
The results are summarised in the below Regional Perspective in order of importance connecting each hypothesis to the others.

Six main hypotheses emerge where the levers of Dynamics act on the key factors of Social Potential to determine paths orientated towards SDL.

The short descriptions of the hypotheses of alternative options are further explained in **Section 2**, specifying the expected results, the financial and organisational measures

Section 3 gives the details on the SDL/SWOT analysis, the main indicators and the main hypotheses that specifically relate to each of the 32 SDL aspects. The hypotheses prevent Strengths into becoming Weaknesses because of Threats and on the contrary to develop Weaknesses into Strengths through identified Opportunities.

Regional profile

		S Strengths	W Weaknesses	O Opportunities	T Threats
O1	Environment	●●●●	●●●	●●●	●●●●
O2	Economy	●●●●	●●●	●●●	●●●
O3	Socio-culture	●●●	●●●●	●●●	●●●
O4	Equity between individuals	●●	●●	●●●	●●●
O5	Equity between territories	●●●	●●●	●●●	●●●
O6	Equity between generations	●●●	●●●	●●	●●●●
O7	Diversity	●●●●	●●●	●●●	●●
O8	Subsidiarity	●●●●	●●●	●●●●	●●●
O9	Networking and partnership	●●●●	●●●	●●●	●●●
O10	Participation	●●●●	●●●●●	●●	●●●

		S Strengths	W Weaknesses	O Opportunities	T Threats
P1	Perception of a variety of development approaches	●●●●	●●●●	●●●	●●●●
P2	Creativity and innovation in an entrepreneurial culture	●●●	●●●●	●●●	●●●●
P3	Capacity to cope with complexity and ambiguity and to anticipate change	●●●	●●●●●	●●●●●	●●●●
P4	Openness to enrich ones own culture and enhance multicultural cohesion	●●●	●●●●	●●●	●●●●
P5	Discovery and re-encoding of territorial specificities and local knowledge	●●●●	●●●	●●●	●●●●
P6	Ability to reach own optimal level of attainment and fulfilment	●●●●	●●●●●	●●●●	●●●
P7	Fractal distribution of competence using the counter flow principle	●●●●●	●●●	●●●●●	●●●●
P8	Autonomy of strategic decision making within a facilitating infrastructure	●●●	●●	●●●	●●●●
P9	Primary reliance on own resources without compromising those of others	●●●●	●●●	●●●●	●●●●
P10	Shared value system taking into account environmental, socio-cultural and economic interdependencies	●●●●	●●●	●●●	●●●●
P11	Social cohesion	●●●●	●●●	●●●	●●
P12	Opportunities and room for equitable interaction	●●●●	●●●	●●●	●●
P13	Capacity for creating shared visions	●●●●	●●●	●●●	●●●●
P14	Integration of social and technical skills into the innovation process	●●●	●●●●	●●●●	●●
P15	Access to information and to the arena of dialogue and debate	●●●●	●●●●●	●●●●	●●●
P16	Multiplicity of interactions, enhanced by local actors	●●●	●●●●●	●●●●	●●●●

		S Strengths	W Weaknesses	O Opportunities	T Threats
D1	Enhancing problem understanding	●●●	●●●●	●●●●	●●●
D2	Open collective learning	●●●	●●●	●●●●	●●●
D3	Negotiation and co-decision	●●●●	●●●●●	●●●●	●●●
D4	Creation of a shared vision	●●●●	●●●●●	●●●●	●●●
D5	Client orientation	●●●●	●●●●	●●●●	●●●
D6	Result orientation	●●●	●●●●●	●●●●	●●●●

Regional Perspective

Table: cluster of hypothesis of innovative options

Dynamics	Social Potential	Orientation
D1 - Enhancing problem understanding	P1 - Perception of a variety of development approaches	O1 - Environment O2 - Economy
D3 - Negotiation and co-decision	P3 - Capacity to cope with complexity and to anticipate change P10 - Shared value system taking into account environmental, socio-cultural and economic interdependencies P15 - Access to information and dialogue	O9 – Networking and partnership
D6 - Result orientation	P2 - Entrepreneurial creativity and innovation P5 - Discovery and re-encoding of the local specificities and knowledge P7 - Fractal distribution of responsibilities and competence P8 - Facilitating structure for autonomy and collaboration into the decision-making P9 - Primary reliance on the endogenous resources without compromising the ones of the others	O7 – Diversity O8 – Subsidiarity
D4 - Creation of a shared vision	P13 - Capacity for creating shared visions of local development P16 - Existence of facilitators and animators of multiple interactions	O10 – Participation
D2 - Open collective learning	P14 - Integration of social and technical skills for innovative processes	O3 – Socio-culture
D5 - Client orientation	P4 - Enrichment of the local knowledge to create a cohesive multicultural environment P6 - Ability to reach optimal levels of attainment and fulfilment of life P11 - Social cohesion P12 - Opportunity and room for fair interactions	O4 – Social equity (between individuals) O5 – Inter-local equity (between territories) O6 – Inter-temporal equity (between generations)

Order of importance that connects each hypothesis to the others

1)

To create a permanent structure for the study of sustainable logistics where local professionals interact with local and regional bodies to create a Plan for Sustainable Accessibility in Casentino. This structure will have the responsibility to coordinate hypothesis 2, 3, 4, 5 and 6.

2)

To create a roundtable on logistics issues, with the involvement of a large variety of stakeholders for planning logistics fluxes, integrating accessibility issues into Local Agenda 21.

3)

To organise a long term system for monitoring and evaluating to assist logistics stakeholders (governments, businesses, civil society and citizens) to improve their activities in terms of economic, social and environmental diversification and to facilitate the participation of logistics stakeholders in integrated decision making (e.g. co-ordinated planning).

4)

To create a group of local facilitators for "win-win" solutions, participation of local stakeholders, elaboration of locally-adapted methodology

5)

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.

6)

To include quality management issues and sustainable development principles in all training courses and e-learning tools for producers (employers and employees) and consumers (generic public, job-seekers and unemployed, families, pupils) in order to increase awareness of sustainable logistics as a means to favour social cohesion and development in depressed areas over the next 15 years.

2. Main hypotheses of alternative options

1st hypothesis

D1 - Enhancing problem understanding
P1 - Perception of a variety of development approaches
O1 - Environment
O2 - Economy

Short description

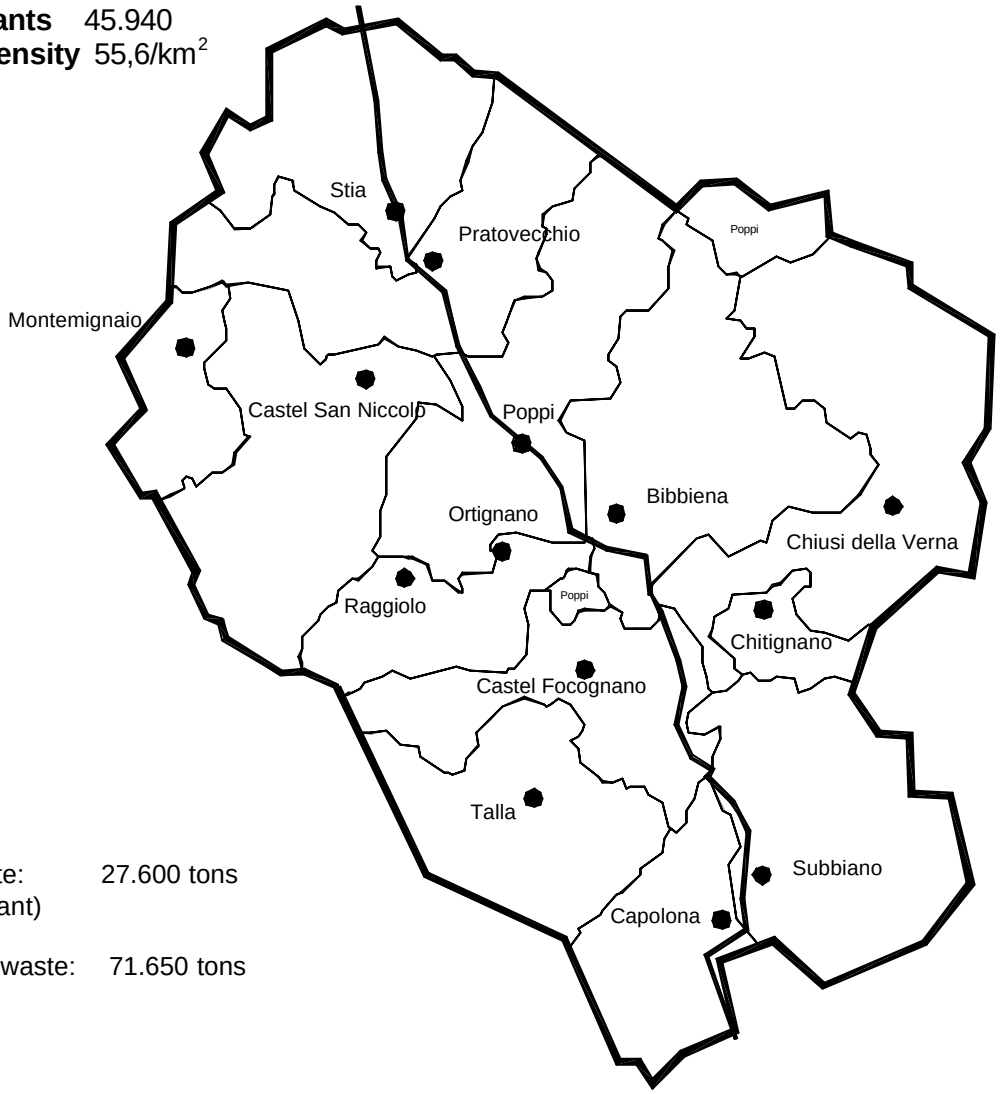
To create a permanent structure for the study of sustainable logistics where local professionals interact with local and regional bodies to create a Plan for Sustainable Accessibility in Casentino. This structure will have the responsibility to coordinate hypothesis 2, 3, 4, 5 and 6.

Expected results

- a substantial reduction and rebalance of energy consumption in the transport modes
- a reduction of pollution due to transport activities
- a progressive reduction of the transportation related external costs (environmental, social and health) making economic resources available for investment in production, socio-culture and the environment
- a progressive reduction of the transport intensity in the local economy
- a substantial reduction of road transport and a rebalance between the transport modes
- the rationalisation and reduction of general costs (e.g. through co-ordination and aggregation of services as such as waste management, e-government information network, power delivery, railroad facilities and connections) in order to cope also with lack of public funding due the recent financial laws (national budget)
- the improvement in quality, value, productivity and employment in several fields of activities (e.g. increasing the dissemination and transfer of good practices already experimented in tourism, economic diversification, territorial marketing) with a specific support to self-employment, enterprise creation and to the maintenance of the existing fabric of small businesses

The Casentino area: population, land use, waste

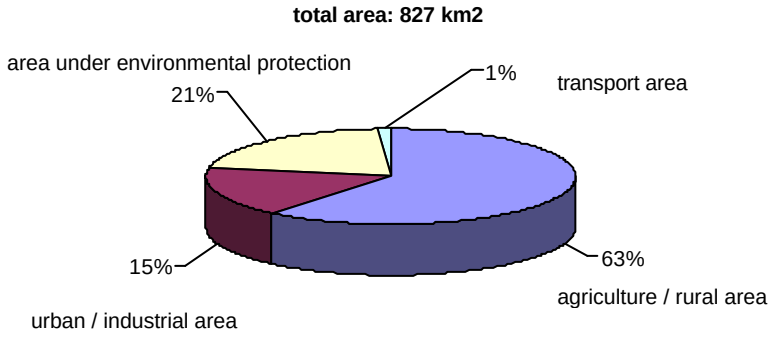
Total inhabitants 45.940
Population density 55,6/km^2



Waste

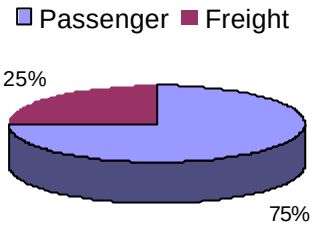
Household waste: 27.600 tons
(601 Kg/inhabitant)

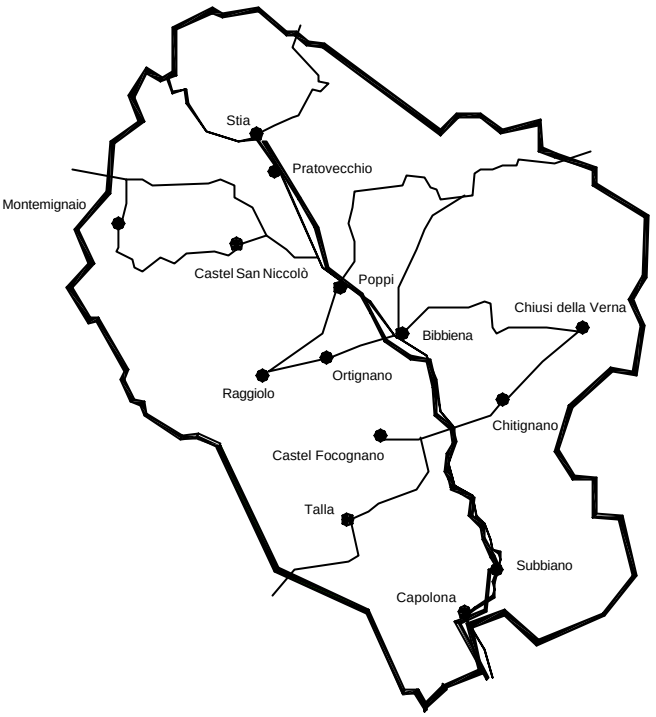
Non household waste: 71.650 tons



Transport: energy, emissions

Transport energy consumption: 35.455 Toe





road
rail

Energy consumption

Total	35.455	Toe
Passenger	26.593	Toe (75%)
Freight	8.862	Toe (25%)

Energy passenger

Rail	497	Toe	(2%)
Road public	222	Toe	(1%)
Road private	25.874	Toe	(97%)

Energy freight

Rail	57	Toe	(1%)
Road	8.805	Toe	(99%)

Total CO_2 87.457 Tons (passenger 77%; freight 23%; road 98%; rail 2%)

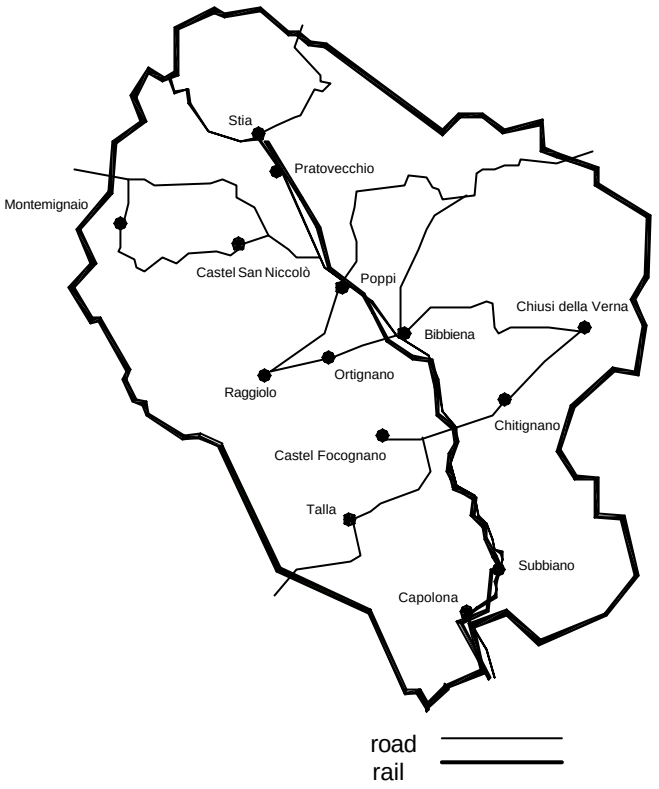
Total NOX 519 Tons (passenger 67%; freight 33%; road 99%; rail 1%)

Total VOC 559 Tons (passenger 96%; freight 4%; road nearly 100%; rail nearly 0%)

Financial and organisational measures

- combination of several attempts stemming from local initiatives to follow criteria of sustainable development (e.g. in waste management plans, integrated spatial plans, recycling, energy production from alternative sources, diffusion of clean technologies, organic farming)
- investments in e-logistics (logistics and transport operators) and e-commerce (businesses and households) supported by the diffusion of the e-government network ("rete civica")
- a co-ordinated organisational and management system (with a diffuse utilisation of ICT) of the supply and distribution chains (local freight logistics network) based on freight rail transportation (e.g. night-freight-trains) combined with light freight road transportation (e.g. share-a-ride / vanpool)
- a co-ordinated organisational and management system (with a diffuse utilisation of ICT) of the passenger transportation (local passenger logistics network) based on a metropolitan railway combined with a differentiated supply and demand matching for public (e.g. buses and taxis, dial-a-ride) and private road transport (e.g. share-a-ride – carpool)
- an inter-modal transport system based on linear connection (e.g. a metropolitan railway with a full-day utilisation of its capacity, differentiated between night-freight-trains and day-people-mover) and transversal connections (e.g. the existing road network improved in safety and quality)
- the creation of an integrated system (local network between the municipalities) in order to monitor and evaluate the total costs (economic, social and environmental) of the logistics structure and the impacts of logistics fluxes (e.g. commercial centres, new road and railways projects, flood expansion area, production chains and networks) on the territory utilising a series of strategic indicators (qualitative and quantitative) that orient local stakeholders towards the reduction of pressure factors (e.g. waste and road traffic) and the quality improvement of business and spatial planning

Transport structure



Transport infrastructure per 1000 inhabitants

Rail	0,96 km
Road	13,7 km

Transport modal split

Passengers 644 million Pkm

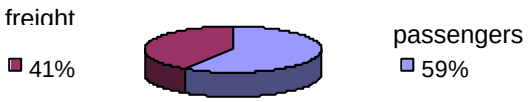
rail	5%
road public	2%
road private	93%

Freight 164 million Tkm

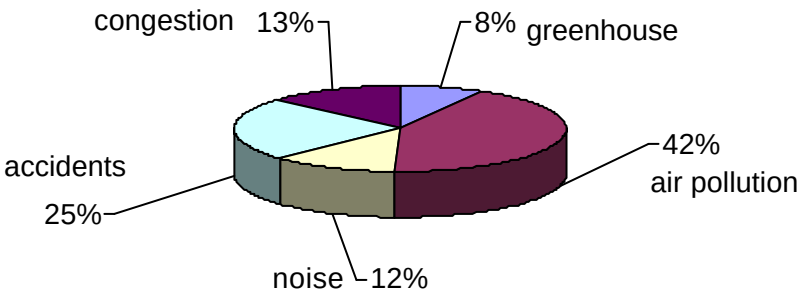
rail	2%
road	98%

Transport external costs

External costs 97,3 million euro



total transport



2nd hypothesis

D3 - Negotiation and co-decision
P3 - Capacity to cope with complexity and to anticipate change
P10 - Shared value system taking into account environmental, socio-cultural and economic interdependencies
P15 - Access to information and dialogue
O9 – Networking and partnership

Short description

To create a roundtable on logistics issues, with the involvement of a large variety of stakeholders for planning logistics fluxes, integrating accessibility issues into Local Agenda 21.

Expected results

- analysis of different interests to create a map that covers all potential local logistics stakeholders (e.g. producers, suppliers, consumers, local communities) looking at a long-term perspective
- participation in and connection with other relevant issues and initiatives
- integration of local sustainable accessibility issues into the elaboration of the valley Local Agenda 21 and support to their implementation with training courses and related research

Financial and organisational measures

- investment in impact analysis, monitoring and evaluating systems, research, learning and training
- creation of an integrated communication centre for public information on the issues related to sustainable development and logistics issues, enlarging the scope of the already existing e-government network (rete civica - portal) managed by the Mountain Community

3rd hypothesis

D6 - Result orientation
P2 - Entrepreneurial creativity and innovation
P5 - Discovery and re-encoding of the local specificities and knowledge
P7 - Fractal distribution of responsibilities and competence
P8 - Facilitating structure for autonomy and collaboration into the decision-making
P9 - Primary reliance on the endogenous resources without compromising the ones of the others
O7 – Diversity
O8 – Subsidiarity

Short description

To organise a long term system for monitoring and evaluating to assist logistics stakeholders (governments, businesses, civil society and citizens) to improve their activities in terms of economic, social and environmental diversification and to facilitate the participation of logistics stakeholders in integrated decision making (e.g. co-ordinated planning).

Expected results

- increase in economic, socio-cultural and environmental diversification as a driving factor for innovation and renewal of local development and employment, considering accompaniment measures related to the logistics structure
- logistics services provided on the basis of economic and employment diversification (e.g. facilities for small businesses, local products), socio-cultural diversity (e.g. facilities for rural areas, local communities, immigrant insertion), natural resources (e.g. facilities for biodiversity diffusion)
- promotion and increase of corporate social and environmental responsibility (e.g. facilities to support business quality certification through the rationalisation of supply and delivery fluxes)

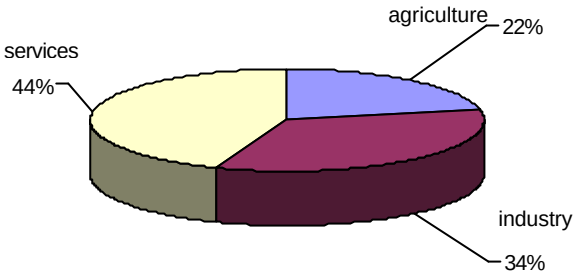
Financial and organisational measures:

- a specific budget dedicated to logistics development (e.g. integration of public and private financial resources)
- a permanent monitoring system of the local, external and transit fluxes of passengers and freights
- clear criteria on stakeholder analysis and involvement in the public decision-making according to the specific field of problems, issues, policies and services
- programmes and projects to stimulate analogous methods in corporate strategies on a volunteer basis, providing financial support and technical assistance to disseminate CSR (corporate social and environmental responsibility; e.g. quality certification) specifically in favour of existing small businesses and enterprise creation
- a Charter of main orientation principles and procedures (e.g. a self-training handbook) in order to implement the institutional strategy for an integrated management of local plans
- development of methods of project financing based on clear protocols and agreements that respect local autonomy in decision-making.

Local autonomy, entrepreneurial structure, associations

Budget autonomy of local governments : 41 % of total municipality revenue

Total businesses = 4.927 local units



Certified businesses

Local origin	39
ISO 14.000/1	3
Ecolabel	1
Biological marks	4

Local development agencies = 3

Business associations = 8

Non profit associations = 281

4th hypothesis

D4 - Creation of a shared vision
P13 - Capacity for creating shared visions of local development
P16 - Existence of facilitators and animators of multiple interactions
O10 – Participation

Short description

To create a group of local facilitators for "win-win" solutions, participation of local stakeholders, elaboration of locally-adapted methodology

Expected results

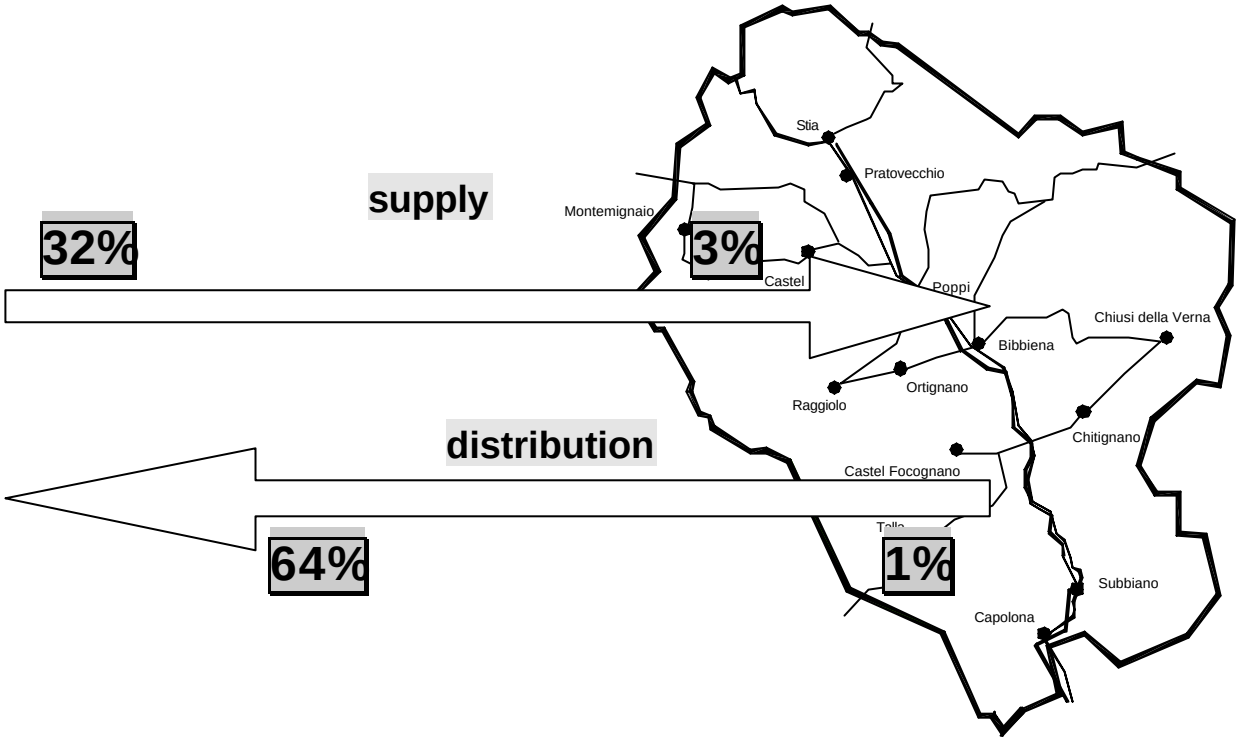
- elaboration of methods and procedures that increase information and participation of local stakeholders (included less favoured categories, e.g. women, old people, disabled people, immigrants, minors) in decision-making on logistics and spatial planning, utilising experiences gained in other policy fields (e.g. local plans of social services)
- elaboration of a locally-adapted methodology that incorporates and harmonises objectives and measures towards sustainability and logistics issues in order to support the revision of previous territorial pacts and local development agreements

Financial and organisational measures:

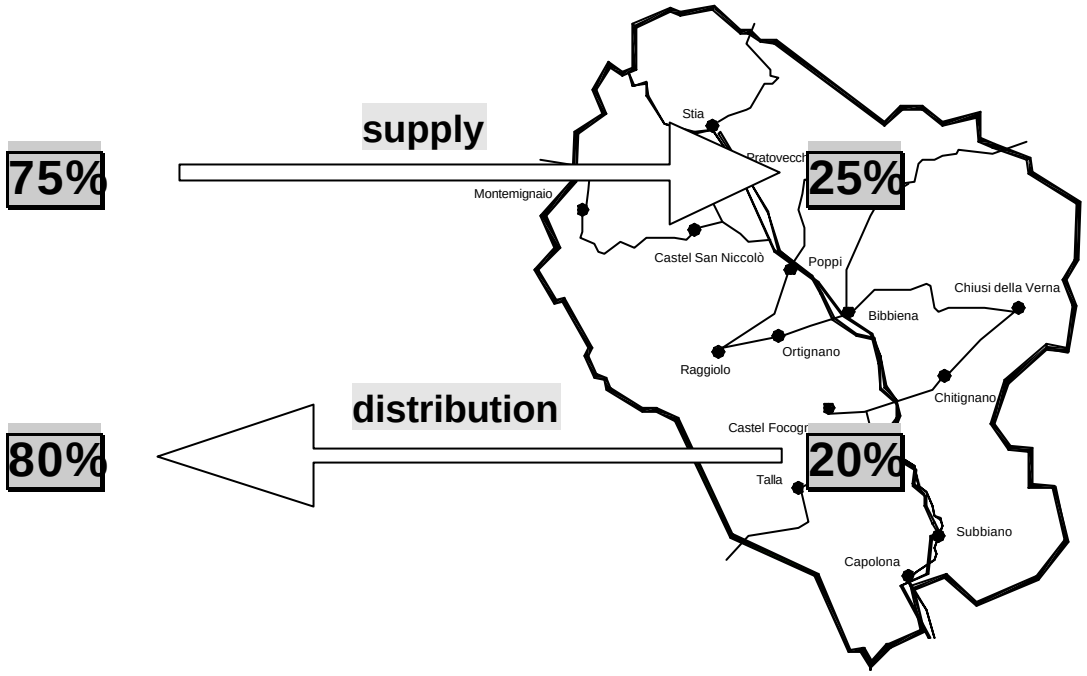
- involvement of existing local development agencies and agents
- application for a new professional profile that combines sustainable development and logistics knowledge
- specific training courses

Transport flow in Tkm

1 – Average share of freight transport internally borne, externally borne, and transit traffic: transit nearly 0%; supply internally borne and externally provided 32%; supply internally borne and internally provided 3%; distribution internally borne and externally delivered 64%; distribution internally borne and internally delivered 1%



2 - Tkm inside and outside Casentino area: nearly 25% of the total Tkm of the supply chain occurs within the Casentino and 75% occurs outside the Valley. For distribution, the Tkm percentages are respectively 20% and 80%



5th hypothesis

D2 - Open collective learning
P14 - Integration of social and technical skills for innovative processes
O3 – Socio-culture

Short description

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.

Expected results

- integration of logistics as a priority in the Local Agenda 21 under elaboration
- promotion of research, training and education for qualified activities and employment (e.g. in agriculture, industry and services) towards sustainable consumption and production, (logistics, mobility and transport included)
- capitalisation of positive experiences (e.g. Life and Leader projects, municipal spatial and social insertion plans) concerning learning methods
- implementation of e-learning methods enlarging scope and purposes of the local municipal network (rete civica)
- mobilisation of 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
- integration between knowledge and skills requested by Local Agenda 21 and logistics issues.

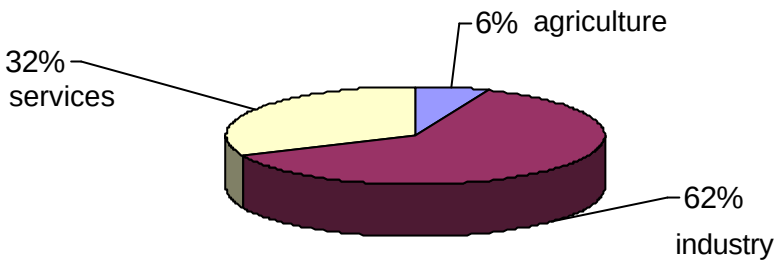
Financial and organisational measures:

- integration of several financial resources and plans, e.g. EU – ESF Ob. 3 (provincial plan for vocational guidance and training), Community Initiatives (e.g. Leader Plus), research and education (university and schools), trade association, regional and provincial support to Local Agenda 21 elaboration

Employment

total employment: 12.195

employment share in main sectors



Activity rate (provincial data)	total	67%
	- women	60% - men 73%
Unemployment rate (provincial data)	total	4,7%
	- women	8% - men 2,1%

Education

drop-out rate	5,1% (upper secondary schools)
university degree	2,3% (over local population)
high school degree	17,6% (over local population)

immigrant pupils in primary school 12%
immigrant pupils in lower secondary education 11%

6th hypothesis

D5 - Client orientation
P4 - Enrichment of the local knowledge to create a cohesive multicultural environment
P6 - Ability to reach optimal levels of attainment and fulfilment of life
P11 - Social cohesion
P12 - Opportunity and room for fair interactions
O4 – Social equity (between individuals)
O5 – Inter-local equity (between territories)
O6 – Inter-temporal equity (between generations)

Short description

To include quality management issues and sustainable development principles in all training courses and e-learning tools for producers (employers and employees) and consumers (generic public, job-seekers and unemployed, families, pupils) in order to increase awareness of sustainable logistics as a means to favour social cohesion and development in depressed areas over the next 15 years.

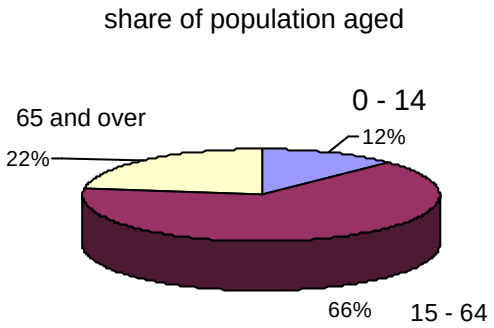
Expected results

- increase in the accessibility to goods, services, people and places taking into consideration people at risk of social exclusion (e.g. social transport for elderly, minors, immigrants, poor families included into the local plan of social services)
- creation of logistics services that anticipate and meet new demand due to demographic changes (e.g. a high dependency rate determined by the progressive increase of ageing population; decrease in household dimensions), cultural and educational changes (e.g. probable increase in the immigrant share of the new generation), availability of public resources (e.g. probable increase in public debt per inhabitants), availability of environmental resources (e.g. probable decrease in biodiversity and in traditional energy sources)
- long-term quantitative objectives that support qualitative objectives and guidelines provided by several local plans, together with adequate systems and methods of social and environmental accounting
- new consumption patterns, new production technologies and methods to fight against resources deterioration and shortcoming

Financial and organisational measures:

- new methods of services delivery (e.g. e-government network supporting also e-commerce, e-logistics, home-shopping, e-banking, e-administration)
- an integrated e-logistics and a safety-orientated inter-modal (e.g. metropolitan railways connected to intra-valley roads) transport system based on the full utilisation of co-ordination potentials (e.g. local e-government and regional networks, spatial planning, waste management, biodiversity conservation, flood expansion area)
- programmes and projects related to integration between different knowledge and cultures taking into account future impacts on logistics dynamics
- programmes and projects for fair interactions also in trade through logistics facilities with different immigrant communities and countries
- programmes and projects for positive actions in favour of women insertion in labour market, education and decision-making (e.g. planning, management and implementation of local policy strategies with a close attention to logistics impacts)

Population structure



Dependency rate = 53,39 %
(percentage of 0 – 14 and 65 over aged people over population aged 15 – 64)

Immigration = 6%

From East Europe	60%
From Asia	15%
From Africa	10%

Equal opportunities

Women in local governments = 13% over men

Transport intensity impact

Traffic accidents

Death	0,02% over total population per year
Injury	0,44% over total population per year

3. SDL / SWOT analysis

3.1. Orientation

O1 - Environment

SDL / SWOT analysis

Strengths		**4**	**Weaknesses**		**3**
Pasture reconstruction, biodiversity and renewable energy production	5	5	Waste reduction not considered by municipal plans with consequences also in logistics (e.g. waste mainly transported out of valley to Arezzo)	5	5
Principles of sustainable development included into several municipal plans: e.g. environmental quality and renewable energy, waste reuse and transportation optimised, integrated infrastructure planning	5	5	Lack of new environmental approaches and strategic impact assessment in the projects of new road, new railway and flood expansion area since their first phases	4	4
Local products and natural wastewater production favoured by the National Park	4	4	Lack of innovative solutions to problems due to specific projects (e.g. landscape impacts of the high tension lines; railroad new sections with several changes in elevation; natural waterways crossed by gas supply lines)	3	3
Spatial renovation promoted by new projects, e.g. local railway (using ex-factory), road (using old road and circumventing population centres), gas supply lines (using former pipeline areas)	4	4	Lack of environmental awareness in local production network	3	3
Flood protection (flood expansion area)	4	4			
High tension electricity delivery, improving power delivery	5	3			
Environmental protection and improvement (e.g. Leader II, closure of polluting pig farm, recycling of batteries by local company, diffusion of clean technologies through local network, recycling and energy production from local wool production)	5	3			
Threats		**4**	**Opportunities**		**3**
Traffic increase due to a new commercial centre	4	4	Probable improvement of environmental attention and conditions through municipal structural plans and the project on flood expansion area	3	4
Fragmentation of the valley territory	4	4	Probable reduction of pollution through a better co-ordination (local network) between municipalities	3	4
High tension electrical delivery: probable increase in energy use, impacts on river and on the environment (also from substations)	4	4	Probable increase in value of local agricultural production through rural projects (e.g. Leader)	4	3
New gas line: probable environmental damages and accidents	4	4	Creation of bicycle path (e.g. Bibbiena)	3	3
Polluting fuels (petrol-coke, animal parts, diesel) used in new energy production and railroad project	5	3	Probable road traffic reduction and logistics improvement promoted by the railroad project (e.g. new warehouses constructed along the line)	3	3

Main indicators

Structural statistics	*Unit of measurement*
Total area	826,7 km^2 (2001)
Total inhabitants	45.940 (2001)
Population density	55,6 inhabitants / km^2 (2001)
Land use development	*Unit of measurement*
Agriculture and rural area	63% over total area
Urban and industrial area	15% over total area
Area for transport purposes	Nearly 1% over total area
Area under environmental protection	21% over total area
Resource use development	*Unit of measurement*
Total residual household waste	27.600 tonnes in 2001
Residual household waste per inhabitant	601Kg / inhabitants in 2001
Total residual non-household waste	71.650 tonnes in 1996
Residual non-household waste per unit GDP	0.1 kg per unit GDP current Euro in 1996
Total energy consumption and in main sectors: transport, industry and other uses	Total 138.258 Toe in 2001, divided in: Industry 48.317 Toe (35%) Transport 35.455 Toe (26%) Other uses 54.486 Toe (39%)
Total energy consumption per unit GDP	150 goe per unit GDP current Euro in 2001
Total energy consumption per inhabitant	3,01 Toe per inhabitant in 2001
Total energy consumption per transport mode: road, rail, water, air transport	Total 35.455 Toe in 2001, divided in: Rail 554 Toe (2%) Road 34.901 Toe (98%)
Total energy consumption per passenger transport mode: road, rail, water, air	Total 26.593 Toe in 2001, divided in: Rail 497 Toe (2%) Road public (buses) 222 Toe (1%) Road private (cars and motorcycles) 25.874 Toe (97%)
Total energy consumption per freight transport mode transport, industry and other uses	Total 8.862 Toe in 2001, divided in: Rail 57 Toe (1%) Road 8.805 Toe (99%)
Environmental impact development	*Unit of measurement*
Total CO2 production	1.036.980 tonnes in 1995
Total CO2 production per inhabitant	24 tonnes per inhabitant in 1995
Total CO2 production due to transport modes	Total 87.457 CO2 tonnes in 2001, divided in: Rail 1.686 tonnes (2%) Road 85.771 tonnes (98%)
Total CO2 production per passenger transport modes	Total 67.106 tonnes in 2001, divided in: Rail 1.546 tonnes (2%) Road public (buses) 355 tonnes (1%) Road private (cars and motorcycles) 65.204 tonnes (97%)
Total CO2 production per freight transport mode	Total 20.351 tonnes in 2001, divided in: Rail 139 tonnes (1%) Road 20.212 tonnes (99%)
Total NOx transport emission	Total 519 NOx tonnes in 2001, divided in: Rail 4 tonnes (1%) Road 515 tonnes (99%)
Total NOx emission per passenger transport mode	Total 349 tonnes in 2001, divided in: Rail 4 tonnes (1%) Road public (buses) 4 tonnes (1%) Road private (cars and motorcycles) 341 tonnes (98%)
Total NOx emission per freight transport mode	Total 170 tonnes in 2001, divided in: Rail 1 tonne (1%) Road 169 tonnes (99%)

Environmental impact development	*Unit of measurement*
Total VOC transport emission	Total 558,7 VOC tonnes in 2001, divided in: Rail 0,3 tonnes (0,1%) Road 558,4 tonnes (99,9%)
Total VOC emission per passenger transport mode	Total 535,6 tonnes in 2001, divided in: Rail 0,3 tonnes (0,1%) Road public (buses) 2,1 tonnes (0,4%) Road private (cars and motorcycles) 533,2 tonnes (99,5%)
Total VOC emission per freight transport mode	Total 23 tonnes in 2001, divided in: Rail nearly 0 tonnes (0,2%) Road nearly 23 tonnes (99,8%)
Average level concentration of traffic noise	Average peak limits night (65db) and day (70db). Night average value is 61,2. The night highest values are in Subbiano (66,5) and Poppi (65). Day average value is 67,1. The day highest values are in Subbiano (71,5), Corsalone (71) and Poppi (70,5).
Average water quality	Extended Biotic Index (I-V), maximum level: III (Terrossola – Bibbiena)

Methodology adopted to estimate transport related environmental data

The methodology totally relies on:

- the calculation made to estimate the amount of Pkm, Tkm and/or vehicle-km attributable to the concerned local area (see the "O2 – Economy" aspect);
- the national average value of goe (gram of oil equivalent), CO_2, NOx and VOC per Units of Transport (Pkm and Tkm) and/or vehicle-km;
- the determination of local average value units utilising the above-mentioned data for transport mode, vehicle typologies and morphological features that characterise the concerned local area.

The number of local Pkm and Tkm are multiplied by the average unit values of:

- goe (gram of oil equivalent), to determine the energy consumption in Toe;
- CO_2 gram, to determine the emissions in terms of CO_2 tonnes; it is recommended to verify the estimate with a parallel calculation made by multiplying vehicle-km by the related average value of CO_2 gms per vehicle-km; it is also useful to compare the national and local energy intensity in terms of goe per GDP unit (EURO) and Toe per inhabitant;
- NOx emissions, to determine the emissions in terms of NOx tonnes; it is recommended to verify the estimate with a parallel calculation made by multiplying vehicle-km by the related average value of NOx grams per vehicle-km;
- VOC emissions, to determine the emissions in terms of VOC tonnes; it is recommended to verify the estimate with a parallel calculation made by multiplying vehicle-km by the related average value of VOC grams per vehicle-km.

Main hypotheses of alternative options

To integrate planning activities in several local initiatives (e.g. in waste management plans, integrated spatial plans, recycling, energy production from alternative sources, diffusion of clean technologies, agricultural production) in order to create a logistics structure aimed at:

- *reducing the energy intensity of the economy; in fact estimates reveal that present consumption levels, nearly 38 goe per unit GDP and 0,8 Toe per inhabitant, are higher than the problematic national average (respectively 35 and 0,7)*
- *pursuing a substantial reduction and rebalance in energy consumption between the transport modes; in fact estimates reveal that the dominant activity for energy consumption is related to road transport (98%) with private passenger transport arriving at 73% and freight transport at 25%*
- *reducing pollution due to transport activities; in fact estimates reveal that the largest production of CO_2 (98%) is due to road transport with private passenger transport totalling 75% and freight transport 23%*

To support this main action through the creation of an integrated information system (local network between the municipalities) in order to monitor and evaluate the impacts of logistics fluxes (e.g. commercial centres, new road and railways projects, flood expansion area, production chains and networks) utilising a series of strategic indicators (qualitative and quantitative) that orient local stakeholders toward the reduction of environmental pressure (e.g. waste and road traffic) and also favour of the development and use of local products.

O2 - Economy

SDL / SWOT analysis

Strengths		**4**	**Weaknesses**		**3**
Increase in quality and value of tourism, local production and employment (e.g. the National Park, Life and Leader projects, wool production, municipal investing and plans aimed at territorial marketing and economic diversification)	4	4	Lack of integrated economic analysis of costs and benefits of new activities (e.g. the impact of a commercial centre on existing commercial areas, the destination of residual materials from a new energy production plan, waste transported outside the valley to Arezzo)	3	3
Increase in infrastructure investment over time, rationalisation and reduction in costs (e.g. hydroelectric station, multi - municipal waste management, new road project with national and regional financing, new railroad project with increase in loading facilities, new high tension power delivery with reduction of maintenance costs)	4	4	Lack of analysis of demographic changes due to new project (e.g. increase of populated areas stimulated by a new road project	3	3
Reduction of information costs and promotion of local socio economic development (e.g. the local Internet – based network for e-government “rete civica”)	3	3			
Threats		**3**	**Opportunities**		**3**
Probable unfair competition between businesses (e.g. commercial centre versus small shops)	4	3	Probable development of alternative energy production	3	4
Probable low attention to new flood protection areas in municipal plans	3	3	Possible economic development due to local innovative initiatives (e.g. new uses of local wood products (Leader project), new small businesses) supported by municipal plans and information network (e.g. “rete civica”)	3	3
Probable lack of funding for the local municipal network	3	2	Possible development of better connection between industry and populated centres (e.g. new bridges and railroad links planned)	3	3

Main indicators

Basic structure	*Unit of measurement*
Total GDP	779.140.000 Eurolire 1995 in 2001 (= 923.394.000 current Euro)
Total employment in all sectors	12.195 people in 2001
Structural development trade	*Unit of measurement*
Local units in wholesale trade	275 local units in 2002
Local units in retail trade	718 local units in 2002
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 (fragmented data)
E-commerce (producers)	36% businesses with access to the Internet over all end users
E-commerce (consumers)	64% households with access to the Internet over all end users

Transport infrastructure development	*Unit of measurement*
Railways per typology (sole or double track) and per inhabitant	44 Km of sole track in 2001 0,96 Km per 1000 inhabitants
Roads per typology (sole or double track) and per inhabitant	630 Km in 2001, of which 69 Km regional, 302 Km provincial and 259 Km local roads (nearly all in double track) 13,7 Km per 1000 inhabitants
Railways capacity	32 passenger trains and 2 freight trains per day in 2001
Road capacity	15.000 vehicles per day in regional roads and 10.000 in the other roads
Road congestion, traffic jams and time loss	0,009 traffic jams-hours per inhabitant in 2001 in regional roads; 0,010 in the other roads
Overcrowded public transport	0,0072 crowding-hours per inhabitant in 2001
Transport intensity	*Unit of measurement*
Total passenger per transport mode	Total 644 million Pkm in 2001, divided in: Rail 35 (5%) Road public (buses) 11 (2%) Road private (cars and motorcycles) 598 (93%)
Total freight per transport mode	Total 164 million Tkm in 2001 divided in: Rail 4 (2%) Road 160 (98%)
Passenger transport intensity per unit GDP	0,70 Pkm per GDP current Euro in 2001
Freight transport intensity per unit GDP	0,18 Tkm per GDP current Euro in 2001
Passenger transport intensity per inhabitant	15 thousand Pkm per inhabitant in 2001
Freight transport intensity per inhabitant	3,6 thousand Tkm per inhabitant in 2001
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 modes (road, rail)	97,3 million current Euro in 2001 (10,5% of total GDP), divided in: Greenhouse = 7,7 million (7,5 road and 0,2 rail) Air pollution = 40,6 million (40,2 road and 0,4 rail) Noise = 11,6 million (10,7 road and 0,9 rail) Accidents = 24,8 million (24,7 road and 0,1 rail) Congestion = 12,6 million (12,5 road and 0,1 rail)
Estimate of total environmental (greenhouse and air impacts), social and health (noise, accidents, congestion) damages caused by passenger transport modes (road, rail)	57,5 million current Euro in 2001 (6,2 % of total GDP), divided in: Greenhouse = 4,7 million (4,5 road and 0,2 rail) Air pollution = 17,3 million (16,9 road and 0,4 rail) Noise = 5,3 million (4,6 road and 0,7 rail) Accidents = 22,8 million (22,7 road and 0,1 rail) Congestion = 7,5 million (7,4 road and 0,1 rail)
Estimate of total environmental (greenhouse and air impacts), social and health (noise, accidents, congestion) damages caused by freight transport modes (road, rail)	39,8 million current Euro in 2001 (4,3 % of total GDP), divided in: Greenhouse = 3 million (3 road; very few rail) Air pollution = 23,4 million (23,4 road; very few rail) Noise = 6,3 million (6,1 road and 0,2 rail) Accidents = 2 million (2 road; very few rail) Congestion = 5,1 million (5,1 road)

Methodology adopted to estimate transport related economic data

The following steps characterise the methodology utilised to estimate the basic Transport Units (Pkm and Tkm), their relative units in relation to GDP and number of inhabitants, as well as their incidence in terms of social and environmental costs (externalities).

The calculation of locally-based Pkm and Tkm combines two methods.

The bottom-up approach consists of:

- considering the number of vehicles attributed (by public registers) to the concerned local area;
- multiplying the number of each vehicle typology by an average number of km travelled per year in order to estimate the number of vehicle-km;
- multiplying the number of vehicle-km by an average number of passengers or tonnes per vehicle in order to arrive at estimating Pkm and Tkm.

In the case of road public and rail transport, another method to calculate Pkm and Tkm takes into account the available data on passengers and tonnes transported per year. These data are multiplied by an average number of km travelled per trip.

The second method can be defined as a top-down approach and consists of:

- utilising the nationally available data (Pkm and Tkm) on transport modes that exist in the concerned local area;
- selecting appropriate variables to gauge the national data in terms of the concerned local context; generally this will involve information on the local GDP value, the number of inhabitants and the value of household consumption which can be used as a common denominator in the two territorial dimensions;
- calculating Tkm and Pkm per unit in terms of the relational variable (e.g. Pkm per GDP or per inhabitant);
- multiplying the above-determined average number of Pkm/GDP of inhabitant (and Tkm) by the value that the selected variables have in the concerned local area;
- determining the range of a wise attribution of Tkm and Pkm to the concerned local area (maximum and minimum values).

The last operation serves to compare the results of the two approaches and to arrive at a final attribution of the estimated values of Tkm and Pkm to the concerned local area.

The externality costs are estimated in a similar manner:

- taking as a point of reference the estimates of national average costs (greenhouse gases, air pollution, noise, accidents, congestion) per unit of transport (Pkm and Tkm) that are pertinent to the local prevalent transport modes;
- multiplying the above-selected cost units to the Pkm and Tkm attributed to the concerned local area;
- calculating the percentage value of transport-derived externalities on the local GDP in order to fully recognise their total amount.

Main hypotheses of alternative options

To increase efficiency in the local logistics structure and to stimulate economic efficiency at territorial and business level through:

- *a reduction of road transport and a rebalance between the transport modes; in fact estimates reveal that road freight and private passenger transport have nearly 10 percentage points more than the problematic national average; vice versa public passenger transport (by rail and road) and rail freight transport have nearly 10 percentage points lower*
- *a progressive reduction of the transport intensity in the local economy*
- *investments in e-logistics (logistics and transport operators) and e-commerce (businesses and households) and supported by the diffusion of the e-government network ("rete civica")*
- *a co-ordinated organisational and management system (with a diffuse utilisation of ICT) of the supply and distribution chains (local freight logistics network) based on freight rail transportation (e.g. night-freight-trains) combined with light freight road transportation (e.g. share-a-ride / vanpool)*
- *a co-ordinated organisational and management system (with a diffuse utilisation of ICT) of the passenger transportation (local passenger logistics network) based on a metropolitan railway combined with a differentiated supply and demand matching for public (e.g. buses and taxis, dial-a-ride) and private road transport (e.g. share-a-ride – carpool)*
- *an inter-modal transport system based on linear connection (e.g. a metropolitan railway with a full-day utilisation of its capacity, differentiated between night-freight-trains and day-people-mover) and transversal connections (e.g. the existing road network improved in safety and quality)*
- *the rationalisation and reduction of general costs (e.g. through co-ordination and aggregation of services as such as waste management, e-government information network, power delivery, railroad facilities and connections) in order to cope also with lack of public funding due the recent financial laws (national budget)*
- *a progressive reduction of the transport related external costs (environmental, social and health damages) in order to make economic resources available for investment in production, socio-culture and the environment*
- *the improvement in quality, value, productivity and employment in several fields of activities (e.g. dissemination and transfer of good practices already experimented in tourism, economic diversification, territorial marketing) with a specific support to self-employment, enterprise creation and to the maintenance of the existing fabric of small businesses*
- *the creation of integrated system (local network between the municipalities) in order to monitor and evaluate the total costs (economic, social and environmental) of the logistics structure utilising a series of indicators (qualitative and quantitative) that allow local stakeholders to improve the quality of business and spatial planning*

O3 – Socio-culture

SDL / SWOT analysis

Strengths		**3**	**Weaknesses**		**4**
Education to responsible style of life (e.g. multiple municipal waste management, Life and Leader projects, municipal spatial plans)	4	4	Lack of analysis on the cultural impacts, attitudes and behaviour induced by new road project	4	4
Internet diffusion and computer training (e.g. municipal network "rete civica"; public administration personnel; school pupils)	4	3	Poor quality schools and poor interrelation with local businesses	4	3
Cultural activities and renovation (e.g. municipal projects to restore historic centres and sites, National Park initiatives for promoting local traditional culture and quality services)	3	1	A certain attitude to consider immigrants as a mere labour-force	4	1
Threats		**3**	**Opportunities**		**3**
Bureaucratic style in managing innovation (e.g. municipal network "rete civica" not fully exploited to promote the culture of sustainable production and consumption)	3	3	Possible dissemination of e-learning to the general public (e.g. through the local municipal network "rete civica")	4	3
Sectoral culture of innovation (e.g. new railroad project without emphasis on positive changes towards a sustainable mobility)	3	1	Increase of multicultural, professional, managerial training also accessible to the immigrant population (e.g. Leader project, municipal plans for tourism and social inclusion)	3	2

Main indicators

Population structure	*Unit of measurement*
Total population, women and men	45.940 inhabitants in 2001, 51% women and 49% men
Total population aged 15 – 64, women and men	29.950 inhabitants in 2001, 49% women and 51% men
Life expectancy, total and gender breakdown (women and men)	Tuscany in 2001: 77,4 years (men, Italy 76,7) and 83,3 (women, 82,8) (data n. a. at sub-regional levels)
Activity developments	*Unit of measurement*
Unemployment rate	4,7% in 2001 (provincial data)
Activity rate per year	67% over population aged 15-64 in 2001 (provincial data)
Employment in main sectors: agriculture, industry and services	In 2001: Agriculture 796 people (6%) Industry 7.505 people (62%) Services 3.894 people (32%)
Employment in all transport services	342 people (3% over all employment sectors) in 2001
Employment in supporting and auxiliary transport activities – e.g. travel agencies	63 people (0,5% over all employment sectors in 2001
Employment in all trade activities, wholesale and retail trade share	1.396 people (11% over all employment sectors) in 2001
Education level	*Unit of measurement*
Drop-out rate of upper secondary schools	5,1% over total student population in upper secondary schools in 2000
University degree	2,3% over all local population in 1991
High school degree	17,64% over all local population in 1991
Education programmes on the environment	4 in 2001

Main hypotheses of alternative options

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*

O4 – Social equity (between individuals)

SDL / SWOT analysis

Strengths		**2**	**Weaknesses**		**2**
Mobility services for specific categories (e.g. immigrant commuter transport provided by local firms)	3	2	Lack of attention on the increase in immigrant presence within local communities and on the support for enterprise and employment creation (e.g. municipal plans)	3	1
Increase in service accessibility (e.g. local municipal network "rete civica") from the public	3	2			
Initiatives (e.g. municipal and local plans for social services – transport included) to ameliorate the quality of life of people at risk of social exclusion (e.g. minors, immigrants, disables, women), as well as corporate social awareness towards disabled (e.g. labour insertion agreements)	3	2			
Threats		**3**	**Opportunities**		**3**
Probable reduction in public expenditure for social services devoted to the most vulnerable people (e.g. disables, elderly, women – transport services included) due to recent national plans and financial (public budget) laws	4	3	Probable increase in facilities and services for the public (e.g. commercial centre, local e-government network "rete civica")	3	3
Probable displacement effects on entrepreneurial activities and employment (e.g. competition of new commercial centres versus existing small local shops)	4	3	Probable increase in social and labour insertion for women and immigrants (e.g. municipal plans)	3	1

Main indicators

Equal opportunities developments	*Unit of measurement*
Women and men unemployment rate	8% women and 2,1% men in 2001
Women and men activity rate	60% women and 73% men over the respective population aged 15-64 in 2001 (provincial data)
Transport and logistics companies directed by women	15%
Women in local governments	10 women = 13% over total men in local governments per year
Families below the poverty line (absolute and / or relative)	Percentage over total families per family per year (fragmented data)
Immigrant families below the poverty line	Percentage over the total families below the poverty line per year (fragmented data)
Transport intensity impacts	*Unit of measurement*
Death and injury related traffic accidents	As an average 8 deaths and 202 injuries per year, equivalent, respectively, to 0,02% and 0,44% over total local population in 2001

Main hypotheses of alternative options

To increase the accessibility to goods, services, people and places through the development of:

- *a safety-orientated transport network (e.g. rail – roads integration) that takes into consideration also people at risk of social exclusion (e.g. social transport for elderly, minors, immigrants, poor families included into the local plan of social services)*
- *an ICT system that allows logistics to lessen transport intensity and pressure on the local social communities providing services that reach the local inhabitants at home (e.g. e-government network "rete civica" supporting also e-commerce, home-shopping, e-banking, e-administration)*
- *positive actions in favour of women insertion in labour market, education and decision-making (e.g. planning, management and implementation of local policy strategies with a close attention to logistics impacts)*

O5 – Inter-local equity (between territories)

SDL / SWOT analysis

Strengths		**3**	**Weaknesses**		**3**
Local initiatives with positive impacts on the Valley communities (e.g. Life - biodiversity conservation; waste management and transport; flood expansion area; new road project)	4	3	Waste transport outside Valley	3	3
Threats		**3**	**Opportunities**		**3**
Probable increase in energy import from outside the Valley through new electric power line	4	3	Probable increase in policy co-ordination (e.g. local municipal e-government network "rete civica"; local spatial plans; new electric power supply line)	4	3

Main indicators

Economic and social cohesion	*Unit of measurement*
GDP per inhabitant (Euro)	Casentino: 20.100 current Euro in 2001 (= 16.960 Eurolire 1995) Tuscany: 23.236 current Euro in 2001 (= 19.606 Eurolire 1995) EU - 15: 22.982 current Euro per inhabitant in 2000
Immigration	6% of immigrants over total local population in 2001
Internet – based networks between the concerned territory and other local communities	1 regional Internet-based portal, information on all sub-regional contexts, regional and local policies, facts and figures

Main hypotheses of alternative options

To develop services that are accessible to depressed areas through:

- *an integrated e-logistics and an inter-modal (e.g. metropolitan railways connected to intra-valley roads) transport system based on the full utilisation of co-ordination potentials (e.g. local e-government and regional networks, spatial planning, waste management, biodiversity conservation, flood expansion area)*

O6 – Inter-temporal equity (between generations)

SDL / SWOT analysis

Strengths		**3**	**Weaknesses**		**3**
Investments in resources conservation (e.g. Life - biodiversity; National Park; reduction of the fossil fuel usage; traditional techniques applied in wool production; waste recycle at 35% and reduction of landfill dimensions; new gas pipeline)	5	3	Lack of an integrated strategic assessment the several environmental, social and economic plans and projects, also from a logistics point of view	3	3
Attention to the future generations (e.g. involvement of school children in municipal spatial planning)	3	2			
Threats		**4**	**Opportunities**		**2**
Probable increase in energy consumption, waste consumption and private traffic (e.g. new road project, new high tension electric power supply)	4	4	Probable increase in information on the future impacts of the current programmes, plans and projects utilising also the local e-government network (“rete civica”)	3	2

Main indicators

Social cohesion	*Unit of measurement*
Share of population below 15 years and above 65 years	12,4% people below 15 years and 22,4% people above 65 years over all local population in 2001
Dependency rate per year	53,39% (percentage of 0-14 and 65 – over aged people over population aged 15 – 64) in 2001
Immigrant pupils in primary schools	353 immigrant pupils in primary school = 12% over the autochthonous pupils (2.838) in 2001. 129 immigrant pupils in lower secondary education = 11% over the autochthonous pupils (1.150) in 2001
Development impacts	*Unit of measurement*
Public debt per inhabitant	647 current Euro per inhabitants in 2002 (total 29.724.000)
Strategic environmental impact assessment	Environmental Impact Assessment: 1 regarding a quarry project

Main hypotheses of alternative options

To evaluate the logistics impacts of the economic development over the next 15 years taking into account:

- *demographic changes (e.g. a high dependency rate due to the progressive ageing of the population, which reveals a difference of 10 points of percentage between old and new generations), cultural and educational changes (e.g. probable further increase in the immigrant share of the new generation), availability of public resources (e.g. public debt per inhabitants), availability of environmental resources (e.g. biodiversity and energy)*
- *new services' demand (e.g. increase in ageing people, decrease in household dimensions)*
- *new consumption patterns, new production technologies and methods to fight against resources deterioration and shortcoming*
- *new methods of services delivery (e.g. e-commerce)*

O7 – Diversity

SDL / SWOT analysis

Strengths		**4**	**Weaknesses**		**3**
Environmental diversity (e.g. National Park and Life project, biodiversity and resources conservation)	5	4	Limited considerations on impacts of industrial production on local cultural diversity and biodiversity	4	2
Economic diversity (e.g. municipal spatial planning; traditional skills and knowledge reintroduced in wool production)	4	3	Low attention on other cultural diversities (e.g. immigrants not yet well integrated)	4	2
Cultural diversity (e.g. eco-museum; municipal network "rete civica"; restoration of historical centres)	4	2			
Threats		**2**	**Opportunities**		**3**
Probable reduction of economic elasticity (e.g. local products and shops displaced by big commercial centres)	4	3	Probable diversification of economic and cultural activities (e.g. municipal spatial and development plans; increasing presence of immigrants as a local resource)	4	2
Probable limited diversity in access facilities to services from rural areas (e.g. limits of technological and information nature in the municipal network "rete civica")	3	1	Probable dissemination of cultural diversity (e.g. awareness of the local rural / mountain culture promoted by the municipal network "rete civica")	3	1

Main indicators

Social diversity	*Unit of measurement*
Immigration by origin	60% of immigrants from East Europe, 15% from Asia and 10% Africa over total immigrants in 2001
Environmental diversity	*Unit of measurement*
Biodiversity	4 programmes and plans in 2002 (amphibian habitat, pasture, Life, rare flora)
Economic diversity	*Unit of measurement*
Businesses with local origin certification	39 certified businesses in 2002

Main hypotheses of alternative options

To provide logistics services with a specific attention on:

- *economic and employment diversification (e.g. facilities for small businesses, local products)*
- *socio-cultural diversity (e.g. facilities for rural areas, local communities, immigrant insertion)*
- *natural resources (e.g. facilities for biodiversity diffusion)*
- *corporate social and environmental responsibility (e.g. facilities to support business quality certification through the rationalisation of supply and delivery fluxes*

O8 – Subsidiarity

SDL / SWOT analysis

Strengths		**4**	**Weaknesses**		**3**
Co-operative decision-making between different components of civil society (e.g. citizens and NGOs in municipal spatial planning; local plans of social and health services), public and private sectors (e.g. mixed society for railroad with involvement of large businesses; Leader and Life projects), local, regional and national authorities (e.g. waste management; flood protection area), local authorities (e.g. municipal e-government network "rete civica")	5	4	Weak dissemination of new governance methods in all policy fields (e.g. limited awareness of transversal value of procedures experimented in local plan for social services' delivery)	3	3
Threats		**3**	**Opportunities**		**4**
Public administrative bureaucratic style and limited autonomy of local authorities due to financial restriction (national budget laws)	4	3	Further development of co-ordinated resources' management between public, private and social sectors (e.g. spatial and transport plans)	4	4

Main indicators

Institutional subsidiarity	*Unit of measurement*
Budget autonomy and responsibility of local authorities	13.704.268 current Euro in 2002, equal to 41% of the total municipality revenue
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 (data not available)
Average share of freight transport internally borne, externally borne and transit traffic	Transit nearly 0% Tkm Supply: Tkm internally borne and internally provided 3% Supply: Tkm internally borne and externally provided 32% Distribution: Tkm internally borne and internally delivered 1% Distribution: Tkm internally borne and externally delivered 64% Tkm occurred inside the Casentino area: 25% of total supply Tkm and 20% of total distribution Tkm Tkm occurred outside the Casentino area: 75% of total supply Tkm and 80% of total distribution Tkm

Main hypotheses of alternative options

To empower local stakeholders (governments, businesses, civil society and citizens) in logistics decision-making (e.g. co-ordinated planning) through the creation of:

- *a specific budget line on logistics development (e.g. integration of public and private financial resources)*
- *a permanent monitoring system of the local, external and transit fluxes of passengers and freights*

O9 – Networking and partnership

SDL / SWOT analysis

Strengths		**4**	**Weaknesses**		**3**
Several types of networks (e.g. waste management; information and data on local environment, cultural, education and training initiatives; local products and services; e-government "rete civica")	4	4	Limited involvement of small businesses and limited collaboration between themselves and with other small companies outside the valley	4	3
Several types of partnerships (e.g. Leader project; National Park; spatial planning; railroad project) involving private (e.g. big companies, credit institutes), public (e.g. schools, local authorities, Mountain Community) and groups of social-economic interests (e.g. trade associations)	4	4			
Threats		**03**	**Opportunities**		**3**
Risk of limiting the representation of local interests, particularly those of less favoured people (e.g. vulnerable households, immigrants, women) and less considered issues (e.g. environmental NGOs)	3	3	Probable increase in collaboration between local producers (e.g. farmers and entrepreneurs) through agreements for development plans	3	3

Main indicators

Total businesses (local units) in all economy sectors	4.927 local units in 2001
Businesses (local units) per main sectors: agriculture, industry, services	In 2001: Agriculture 1.075 local units (22%) Industry 1.674 local units (34%) Services 2.178 local units (44%)
Business associations	8 in 2001 (3 in trade, 2 in artisan, 3 in agriculture sectors) 1 industry association operate at provincial level (including Casentino valley)
Businesses (local units) in all transport services	187 local units (4% over all economy sectors) in 2001
Businesses (local units) per transport mode	182 in road and 5 in rail transport
Businesses (local units) in supporting and auxiliary transport activities – e.g. travel agencies	16 local units (3% over all economy sectors) in 2001
Consortia between logistics operators	1 between public (Mountain Community), private (4 businesses), credit (2 banks) sectors and the Chamber of Commerce. Purpose: co-ordinated management of the local transport system

Main hypotheses of alternative options

To enlarge scope and dimensions of the present networks for planning logistics fluxes through:

- *the analysis of different interests and the creation of a map that cover all potential local logistics stakeholders (e.g. producers, suppliers, consumers, local communities) looking at a long-term perspective*
- *the creation of local round tables and/or forums in connection with other relevant issues and initiatives (e.g. Local Agenda 21)*

O10 – Participation

SDL / SWOT analysis

Strengths		**4**	**Weaknesses**		**5**
Several initiatives to disseminate information to the general public (e.g. waste management; Life and Leader projects; local e-government network "rete civica"; Internet diffusion in the schools and public administrative bodies)	4	4	Lack of information on logistics and the related (environmental, social and economic) issues	5	5
Several initiatives to foster public participation (e.g. procedures related to the local plan of social services; consultation for road project – questionnaire; consultation and open debate on municipal integrated spatial plans with school pupils involvement	4	4			
Threats		**3**	**Opportunities**		**2**
Risk of vague information, low attention on relevant issues (e.g. the environment) and formal procedures of participation without effective impacts on decision-making from the part of the less favoured social categories	3	3	Probable utilisation of the local network "rete civica" as a tool for participation of the citizens (e.g. discussion groups, Internet community) in the decision-making	3	1

Main indicators

Public awareness campaigns related to the environment	2 in 2001 ("green-day" and "clean the world")
Public awareness campaigns related to transportation and logistics	0
Non profit associations (volunteer) related to social, cultural and environmental interests	281 in 2001 concerning all interest fields (social, cultural and environmental)

Main hypotheses of alternative options

To create methods and procedures that increase information and participation of local stakeholders (included less favoured categories, e.g. women, old people, disabled people, immigrants, minors) in decision-making on logistics and spatial planning, utilising experiences gained in other policy fields (e.g. local plans of social services) and involving the education system from the early grades.

3.2. Social Potential

P1 - Perception of a variety of development approaches

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**4**
Presence of principles related to sustainable development in a series of plans and projects (e.g. Leader, Life, municipal spatial plans)	4	Lack of well structured methods and strategies for sustainable development in all fields of activities, as well as in specific projects (e.g. new road and railways projects)	4
Threats	**4**	**Opportunities**	**3**
Probable low degree of coherence in transferring and implementing principles of sustainable development in other plans (e.g. road and rail transport; commercial centre)	4	Probable willingness and capacity of integration between the e-government network "rete civica", the rail and road projects, the municipal spatial plans	3

Main indicators

Workshops and seminars focused on sustainable development	0
Publications and public information on sustainable development and related innovation	1 e-learning web-site on Sustainable Business inserted in the provincial portal in 2003

Main hypotheses of alternative options

To integrate programmes, plans, projects and knowledge created by the endogenous human resources and orient them towards sustainable development in order to improve the local logistics system.

P2 - Entrepreneurial creativity and innovation

SDL / SWOT analysis

Strengths	**3**	**Weaknesses**	**4**
Innovation (e.g. landscape, bioengineering techniques) in local plans (e.g. new road) and in industry (e.g. wool production, organic farming)	3	Lack of integrated dissemination and transfer of innovative methods for supporting corporate social and environmental responsibility	4
Threats	**4**	**Opportunities**	**3**
Probable low financial support to research and sustainable innovative methods specifically directed to small businesses	4	Probable increase in awareness of the business community to the value of the environment and culture promoted by current initiatives (e.g. municipal spatial plans; Leader, Life projects)	3

Main indicators

Average business size in all economic sectors	2,9 employed per local unit in 2001
Average business size in main economic sectors: agriculture, industry and services	In 2001: Agriculture 1 employed per local unit Industry 5,3 employed per local unit Services 2 employed per local unit
Average business size in transport services	2,5 employed per local unit in 2001
Businesses with ISO 14001, EMAS II, Vision 2000 and SA 8000 certification	3 ISO 14000/1 (wood, clothes and ink production), 1 eco-label (shoes production), 4 biological marks in 2003

Main hypotheses of alternative options

To disseminate CSR (corporate social and environmental responsibility) through financial support and technical assistance (e.g. quality certification) specifically in favour of existing small businesses and enterprise creation.

P3 - Capacity to cope with complexity and to anticipate change

SDL / SWOT analysis

Strengths	**3**	**Weaknesses**	**5**
Diffusion of objectives and lessons from pilot projects (e.g. Leader and Life) to other initiatives (e.g. Mountain Co mmunity development plan)	3	Lack of integration between several initiatives for commonly identified objectives of sustainable development	5
Threats	**4**	**Opportunities**	**5**
Probable permanence of sectoral interests and points of view	4	Probable renewed efforts towards integrated programmes and plans (e.g. Local Agenda 21)	5

Main indicators

Programmes directed towards sustainable development	5 in 2003: 1 Mountain Community Development Plan and 2 Waste Plans (ready); 1 Local Agenda 21 and 1 aeolian power plan (under elaboration)
Training courses based on issues of sustainable development	0 in 2002

Main hypotheses of alternative options

To integrate local sustainable accessibility issues into the elaboration of the valley Local Agenda 21 and to support their implementation with training courses and related research.

P4 - Enrichment of the local knowledge to create a cohesive multicultural environment

SDL / SWOT analysis

Strengths	**3**	**Weaknesses**	**4**
Municipal spatial plans aimed at social problems related to immigrants	3	Still limited multi-cultural and inter-disciplinary approaches in schools and training initiatives	4
Threats	**4**	**Opportunities**	**3**
Immigrants contribution considered mostly in the form of labour force	4	Probable future demographic changes with an increase in the immigrant population	3

Main indicators

Programmes for emersion of black market activities	2 in 2003 (1 derived from a national plan, the other based on a local agreement between the social partners)
Projects of multicultural integration and for labour - social insertion	5 of multicultural integration 1 local plan for social insertion (regarding all municipalities)

Main hypotheses of alternative options

To increase number and quality of programmes and projects related to integration between different knowledge and cultures taking into account future impacts on logistics dynamics.

P5 - Discovery and re-encoding of the local specificities and knowledge

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**3**
A series of initiatives focused on putting in value local cultures, products, arts and crafts, landscape, environmental characteristics biodiversity (e.g. Leader and Life projects; new road project; local spatial plans, National Park)	4	Lack of an in depth evaluation of local plans on the local environmental, economic and socio-cultural identities (e.g. new road and watershed plans)	3
Threats	**4**	**Opportunities**	**3**
Probable negative impacts of local plans on social and economic tissue, as well as on specific archaeological and hydrological characteristics of the territory (e.g. commercial centre, new road and railroad projects)	4	Probable increase in awareness of specific features of the territory (e.g. conservation of particular biotopes, landscape value underlined in new road project)	3

Main indicators

Endogenous companies	Percentage over total businesses per year (not yet available)
Projects on local economic, environmental and socio-cultural diversification	Number and main contents per year (not yet available)

Main hypotheses of alternative options

To increase the knowledge on local economic, socio-cultural and environmental characteristics in order to utilise diversification as a driving factor for innovation and renewal of local development and employment, considering accompaniment measures related to the logistics structure.

P6 - Ability to reach optimal levels of attainment and fulfilment of life

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**5**
Attention to the increase of territorial and business quality (e.g. new railroad project, some local firm, local spatial plans)	4	Limited number of initiatives to integrate social and environmental accounting into business and territorial plans	5
Threats	**3**	**Opportunities**	**4**
Probable conflicts between economic, social and environmental interests	3	Support to local initiatives for social and environmental quality provided by the regional operational programme on Objective 2 (EU structural funds)	4

Main indicators

Training and university courses on environmental and social accounting	3 training courses in 2002 regarding business quality, tourism, agro-tourism and local development

Main hypotheses of alternative options

To provide long-term quantitative objectives that support qualitative objectives and guidelines provided by several local plans, together with adequate systems and methods of social and environmental accounting.

P7 - Fractal distribution of responsibilities and competence

SDL / SWOT analysis

Strengths	**5**	**Weaknesses**	**3**
Institutional strategy aimed at integrating the administrative and managerial structure of the valley local authorities (e.g. social and economic development plan defined by the Mountain Community)	5	Still limited transfer of methods for integrated management (e.g. good practices in social, services, spatial, railroad, road, waste, hydrological expansion area plans) in all local policy fields	3
Threats	**4**	**Opportunities**	**5**
Limits to local availability of financial resources due to the national budget plans	4	Probable increase in collaboration between experts, actors (private and public) and different dimensions of responsibility (local and regional) also by means of the e-government network (rete civica)	5

Main indicators

Competencies and responsibilities assigned to local authorities	Municipalities have full responsibility in all policy fields concerning their territories according to the recent national and regional reforms (only defence, police, justice and foreign policies are excluded)
New governance methods applied to plan and project implementation	New methods developed in local plan concerning social services, according to the regionally co-ordinated plan in 2003

Main hypotheses of alternative options

To elaborate a Charter of main orientation principles and procedures (e.g. a self-training handbook) in order to implement the institutional strategy for an integrated management of local plans.

P8 - Facilitating structure for autonomy and collaboration into the decision-making

SDL / SWOT analysis

Strengths	**3**	**Weaknesses**	**2**
Experiences of citizens and civil society involvement into the decision-making (e.g. Leader and Life project, waste management, municipal network for e-government "rete civica", school networks)	3	Lack of structured and harmonised methods for facilitating citizen and civil society involvement in decision-making	2
Threats	**4**	**Opportunities**	**3**
The already absence of a national reform for fiscal federalism with a balanced role between territorial dimensions and responsibility levels	4	Utilisation of spontaneously determined criteria for the dissemination of participation rules in decision-making related all main policy fields	3

Main indicators

Freedom of choice assigned to local authorities in public budget	1.826.362 current Euro in 2002, equal to 20% of the total transfer from the State, Region and Province to the Mountain Community

Main hypotheses of alternative options

To provide clear criteria on stakeholder (citizens, civil society and governments) analysis and involvement in the public decision-making according to the specific field of problems, issues, policies and services, as well as stimulating analogous methods in corporate strategies on a volunteer basis.

P9 - Primary reliance on the endogenous resources without compromising the ones of the others

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**3**
Quality of local products and local knowledge value recognised together with the synergetic role of local public and private financing in a long series of initiatives and plans	4	Lack of an in depth analysis of the impacts of local initiatives in external communities (e.g. waste treatment performed outside the valley)	3
Threats	**4**	**Opportunities**	**4**
Economic competition of big companies versus local businesses	4	Probable increase in collaboration between local businesses, public authorities and communities, stimulated by provincial, regional and EU funds	4

Main indicators

Joint territorial marketing plans	4 in 2003: 1 Leader Plus project, 1 integrated local development plan (PISL); 1 territorial tourism promotion plan; 1 local plan for business incentives
Conferences with other EU local communities	1 in 2003 concerning Mini Olympiads (for children)

Main hypotheses of alternative options

To develop methods of project financing based on clear protocols and agreements that respect local autonomy in decision-making.

P10 - Shared value system taking into account environmental, socio-cultural and economic interdependencies

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**3**
Involvement of a wide range of stakeholders and diffusion of methods and lessons derived form many project (e.g. Life, Leader, waste management, municipal e-government network “rete civica”)	4	Still limited awareness of local businesses on the importance of environmental, social and economic integration	3
Threats	**4**	**Opportunities**	**3**
Probable conflicts of interests between economic, environmental and socio-cultural development plans and between the related stakeholders	4	Probable increased in determining shared value system, supported by information, research, new technologies, impact analysis and learning (e.g. municipal e-government network “rete civica”)	3

Main indicators

Stakeholders involved in relevant committees, forums, inter disciplinary groups related to local development initiatives and plans	56 groups of different local stakeholders involved in the economic and social development plans managed by the Mountain Community in 2003 and before

Main hypotheses of alternative options

To invest in impact analysis, monitoring and evaluating systems, research, learning and training, as well as in an integrated system of public information, enlarging the scope of the already existing e-government network (rete civica) and focusing its purposes on sustainable development issues.

P11 - Social cohesion

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**3**
Wide and dense network of mutual support (e.g. NGOs, social economy) with the involvement also of big local industry	4	A certain lack of integration between environmental and social issues (e.g. local plan for social inclusion)	3
Threats	**2**	**Opportunities**	**3**
Some negative attitudes against diverse cultures and social groups (e.g. immigrants)	2	Probable increase in mutual trust and social inclusion supported by regional and provincial laws and plans	3

Main indicators

Local inclusion plans (housing, social transport, child care, immigrants, elderly, etc.)	One Local Action Plan for social services with an average public expenditure of 131 Euro per inhabitants in 2002 (6 million current Euro as a total); minors, families, elderly, disables and young people as the main target groups

Main hypotheses of alternative options

To utilise social cohesion as a driving force for innovating the local logistics structure towards sustainable development.

P12 - Opportunity and room for fair interactions

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**3**
A long series of local initiatives to affirm equal opportunities between women and men	4	Lack of support from recent national acts and plans	3
Threats	**2**	**Opportunities**	**3**
A certain attitude against immigrant issues, supported by recent national policy orientation	2	Probable increase in initiatives concerning fair and solidarity trade with other distant local communities	3

Main indicators

Centres for equal opportunities (e.g. women and men) and civil rights	1 provincial Equal Opportunity Centre (women and men) still (2003) acting at local level
Participation of immigrant groups in local government decision-making	No initiatives already existing in terms o number of municipalities or statutory charters and resolutions

Main hypotheses of alternative options

To support fair interactions also in trade through specific initiatives concerning logistics facilities with different immigrant communities and countries.

P13 – Capacity for creating shared visions of local development

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**3**
Dissemination throughout the territory of objectives, issues, results, cultural activities related to the environment, biodiversity and local culture (e.g. Leader and Life projects; waste management plans)	4	Lack of a diffused perception on the serious problems determined by the current economic fabric and by the people behaviour on the available environmental resources	3
Threats	**4**	**Opportunities**	**3**
Probable conflicts of interests between local stakeholders, specifically as far as economic and environmental issues are concerned)	4	Probable raising of environmental awareness promoted by public authorities at regional, provincial and local levels	3

Main indicators

Territorial development pacts and Local Agenda 21	1 territorial pact regarding the Central Apennine area (still acting) and 1 Local Agenda 21 (under elaboration) in 2003

Main hypotheses of alternative options

To revise previous territorial pacts and local development agreements in order to incorporate and harmonise objectives and measures towards sustainability, logistics issues included.

P14 - Integration of social and technical skills for innovative processes

SDL / SWOT analysis

Strengths	**3**	**Weaknesses**	**4**
Involvement of different disciplines, knowledge and bodies in innovative projects (e.g. universities, administrators and local actors in Leader; environmental aspects in the new road project; training courses and outside logistics operators in local business; technical and information co-ordination group in the local e-government network "rete civica")	3	Lack of a clear orientation towards sustainable development in training courses	4
Threats	**2**	**Opportunities**	**4**
Probable limitation of knowledge necessary for sustainable development to the experts' arena	2	Probable promotion of integrated knowledge and training courses as a supportive basis for developing the valley Local Agenda 21	4

Main indicators

Vocational training courses that integrate social and technical skills	9 in 2002
Vocational training courses on logistics and transport	2 in 2002 concerning transport

Main hypotheses of alternative options

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.

P15 - Access to information and dialogue

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**5**
Press conferences, consultation meetings, public debate and information diffusion experimented by several initiatives (e.g. municipal network "rete civica", waste management, Life and Leader projects)	4	Lack of an integrated monitoring and information systems on the issues related to sustainable development	5
Threats	**3**	**Opportunities**	**4**
Probable limitation to the public understanding of sustainable development issues because of the utilisation of difficult and complicated language	3	Probable capacity to replicate and enlarge scope and purposes of monitoring systems created by specific projects (e.g. Leader - Nature watching observation centre and information base in forest)	4

Main indicators

Interactive communication networks with the citizens, e.g. e-government	1 Internet-based portal managed by the Mountain Community for e-government involving all municipalities, citizens, business and the civil society (2003 improvements of the system activated some years ago)

Main hypotheses of alternative options

To create a communication centre on the issues related to sustainable development, utilising the current e-government portal managed by the Mountain Community.

P16 - Existence of facilitators and animators of multiple interactions

SDL / SWOT analysis

Strengths	**3**	**Weaknesses**	**5**
Knowledge and skills for the promotion of local development as a result of specific projects (e.g. Leader and Life)	3	Lack of facilitators and animators with the skills requested for implementing sustainable development plans	5
Threats	**4**	**Opportunities**	**4**
Probable underestimation of the role played by facilitators and animators and of their professional requirements	4	Probable creation of local facilitators and animators determined by the implementation of the future Local Agenda 21	4

Main indicators

Local development agencies	3 in 2003 (1 Leader Plus LAG, 1 local development consortium, 1 local intermediary body)

Main hypotheses of alternative options

To create a group of local sustainable development agents able to deal also with logistics issues.

3. 3. Dynamics

D1 - Enhancing problem understanding

SDL / SWOT analysis

Strengths	**3**	**Weaknesses**	**4**
Some examples of monitoring, evaluation, research and debate (e.g. Life Nature on the projects progress; new road project on innovative solution for the environment; new rail road project on increase of rail freight transport through collaboration with local businesses; waste management on alternative solutions and information diffusion; municipal information network “rete civica” with the creation of discussion groups	3	Lack of new principles and criteria for the utilisation of the available resources (e.g. reduction of waste generation; combination of positive impacts of railroad and road projects on environmental, economic and socio-cultural fabric)	4
Threats	**3**	**Opportunities**	**4**
Risk of awareness reduction, especially in environmental issues, because of scarce coherence in national laws, criteria and policies	3	Probable increase in collaboration and interaction between local stakeholders and inter-local bodies because of the multilevel dimensions (e.g. provincial and regional) assumed by specific issues (e.g. watershed, road, railway, waste)	4

Main indicators

Existence of local initiatives towards innovation and creativity in logistics:	One local industry company working with external firms for logistics solutions

Main hypotheses of alternative options

To foster a close co-operation between local and regional bodies in research, evaluation and innovative solutions with a specific attention on logistics issues and sustainable development.

D2 - Open collective learning

SDL / SWOT analysis

Strengths	**2**	**Weaknesses**	**3**
Knowledge diffusion of principles related to sustainable development through information on objectives, difficulties and results of some projects (e.g. Leader, Life)	2	Already scarce research, education (e.g. schools and families) and training activities on sustainable development	3
Threats	**3**	**Opportunities**	**4**
Risk of a very generic knowledge on sustainable development, limited to education initiatives (e.g. school pupils) without enlarge the scope on the entire society (businesses included)	3	Probable integrated diffusion of information on the environmental impacts of new plans (e.g. road and railroad projects)	4

Main indicators

Existence of training courses, seminars and workshops to increase knowledge of logistics operators	0

Main hypotheses of alternative options

To increase knowledge, know-how and skills in logistics through courses, seminars and workshops based on the principles of sustainable development.

D3 - Negotiation and co-decision

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**5**
Participation of a wide variety of actors, experts and institutions in local development initiatives (e.g. flood expansion area; Life and Leader projects; railroad and roads plans, local spatial planning, local plan for social services)	4	Scarce focus on sustainable development paths in the co-ordination and integration of several local initiatives	5
Threats	**3**	**Opportunities**	**4**
Probable poor national policies towards sustainable development with reduction of financial resources allocated to local authorities	3	Probable better orientation and integration of several initiatives through the elaboration of the valley Local Agenda 21	4

Main indicators

Existence of round tables, joint committees and groups of logistics stakeholders for plans and projects development	0

Main hypotheses of alternative options

To create a roundtable on logistics issues, with the involvement of a large variety of stakeholders, as a specific thematic section of the Local Agenda 21 forum.

D4 - Creation of a shared vision

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**5**
Experiences of integrated approach with the involvement of public and private actors (e.g. Life and Leader projects; waste management plans; road and railroads plans; local spatial planning)	4	Lack of a coherent overall vision of sustainable development	5
Threats	**3**	**Opportunities**	**4**
Probable conflicts between different interests and stakeholders	3	The elaboration of the first Local Agenda 21 regarding the valley communities	4

Main indicators

Existence of inter-sectoral and integrated territorial plans decided with the involvement of logistics stakeholders	0

Main hypotheses of alternative options

To create a group of local professionals trained in facilitation methods for "win-win" solutions.

D5 - Client orientation

SDL / SWOT analysis

Strengths	**4**	**Weaknesses**	**4**
Plans and projects motivated by end-user (public) needs (e.g. flood expansion area; road and railroad; electric power delivery)	4	Lack of a systematic analysis of end-user (public) needs in crucial plans (e.g. new road project)	4
Attention to quality management in services and production with examples of client assistance from project design to product usage (e.g. local plan for social services, new working style of different public bodies, some local business, National Park)	4		
Threats	**3**	**Opportunities**	**4**
Probable resistance of hierarchical work organisation and bureaucratic styles (e.g. public administration) or paternalistic behaviours (e.g. small businesses)	3	Probable increase in the role of associations representing a wide range of interests (e.g. consumers, households, women, minors, elderly, immigrants and the environment)	4

Main indicators

Existence of codes and charters on transport and logistics, which involve local stakeholders	0

Main hypotheses of alternative options

To include quality management issues and sustainable development principles as specific contents to be treated in all training courses and e-learning tools.

D6 - Result orientation

SDL / SWOT analysis

Strengths	**3**	**Weaknesses**	**5**
Definition of clear expected results (e.g. flood protection area; railroad project), quality and environmental targets (e.g. National Park, Life project), performance indicators (e.g. Leader project)	3	Scarce focus on results clearly orientated towards sustainable development and determined through an in depth analysis of environmental, socio-cultural and economic impacts and outcomes	5
Threats	**4**	**Opportunities**	**4**
Probable bureaucratic utilisation of parameters and indicators regarding project performance and outcomes	4	Probable development of parameters (and indicators) of project performance and outcomes, fostered by EU and regional requirements	4

Main indicators

Existence of monitoring systems managed by logistics operators on stakeholder satisfaction, impacts on the environment, health and socio-culture	0

Main hypotheses of alternative options

To assist logistics stakeholders with a locally based system for monitoring and evaluating the ongoing results of their activities in terms of performance and outcomes focused on sustainable development criteria.