

Orientation

O1 Environment

Sustainable District Logistics (SDL) orients logistics towards:

- Reduction of natural resource consumption (energy, soil, water, fuel, etc.)
- Preserving landscape configuration (density of hard infrastructures, etc.)
- Re-utilisation of products
- Recycling of parts of products, semi-products and wastes
- Pollution prevention and reduction
- Diffusion of new clean technologies, eco-efficient means and modes of transport
- Utilisation of renewable sources of energy

SDL / SWOT analysis

Strengths

- Multimodal transport hubs
- Large rural areas
- Presence of inland waterways
- Presence of natural reserves

Threats

- Disappearance of flora/fauna in urban areas
- Pollution of water
- Pollution of ground
- Decrease of liveability of rural areas

Weaknesses

- Relative high use of cars
- Little flora and fauna in urban areas
- Too much heavy metals in ground
- Too much noise
- Too much smell

Opportunities

- Modal shift from road to water

Main hypotheses of innovative options

To increase the use of the environment there can be some local improvements:

- Stimulate transportation over water in means of road water chains.
- Stimulate establishment of companies near waterways or in the neighbourhood of "Hubs".
- Increase or further development of load and unload facilities in "Hubs".
- Setting up of a "virtual transport company", which stand above a large number of transport companies and optimise the fulfilment of the transport.

O2 Economy

Sustainable District Logistics (SDL) orients logistics towards efficiency, customer satisfaction and community well-being based on:

- Reduction of the material, energy and transport intensity (flows) in the economy (decoupling) also by means of soft and clean technologies
- Investments for the incorporation and reduction of the environmental and social costs in logistics accounting
- Dematerialisation of economy (durability of goods and services, miniaturisation of products, substitution of products by services)
- Reduction of transport growth and more balanced modal split in favour of rail and water
- Information and Communication Technology to substitute transport (e.g. telecommuting, home-shopping and delivering, teleconferences, teleworking, etc.)

SDL / SWOT analysis

Strengths

- Good use of labour
- Good climate for investing
- Much export
- Strong transport & logistics sector
- Good accessibility of Brabant from Rotterdam and Antwerp

Threats

Weaknesses

- Lack of space for industry
- High congestion
- Relatively high importance of process industry
- High dependency on global economy

Opportunities

- Shortage of qualified personnel
- Ageing of labour market
- Loss of attractiveness for investing
- Decreasing growth of global economy
- Move of industry to cheap-labour countries
- Bad accessibility
- Attraction of more business and labour
- More logistical activities through multi modal hubs
- Stimulation of new businesses through developments in ICT
- Stronger use of strategical position between Rotterdam, Antwerp and Germany

Main hypotheses of innovative options

To improve the efficiency of the local logistic structure the next improvement can be done:

- Optimise the use of the central geographical position of the Brabant area through the tendering of multimodal transport solutions.
- Further extension of the facilities of existing "Hubs".
- Improve the existing water and road infrastructure.
- Start or restart initiatives like "The IJzeren Rijn" and suchlike, in the domain of carriage of goods by rail.

O3 Socio-Culture

Sustainable District Logistics (SDL) orients logistics towards:

- Promotion of sustainable styles of production and consumption
- Investments in human capital (education and training) especially on sustainable development, logistics, transport, etc.
- Transdisciplinarity for integrated management of logistics and integrating planning
- Investments on innovation (Research & Development)

SDL / SWOT analysis

Strengths

- Level of knowledge is good
- Telos - promotion of sustainability in Brabant
- Good climate for living

Threats

- Shortage of specialized personnel
- Shortage of up-to-date technological knowledge

Weaknesses

- Little use of green energy
- Few highly educated
- Little specialized education
- Moderate knowledge infrastructure
- Moderately developed tourist sector
- Low degree of innovation in business sector

Opportunities

- Raising awareness for sustainability through INNESTO project
- Increase in tourist attractions in Brabant to prevent traffic to outside Brabant

Main hypotheses of innovative options

To become a sustainable development region the Brabant region should organize their education programmes in accordance with the needs of the environment. Another important factor is the increase of using green energy in households as well in businesses.

O4 Equity between individuals

Sustainable District Logistics (SDL) orients logistics towards:

- Improvement of accessibility to goods, services, people and places, developing services that meet the needs of local population, including women, the poor, the rural, the disabled, elderly people, immigrants, ethnic minorities, etc. (equal accessibility)
- Balanced local development
- Health and safety activities
- Reduction of unnecessary and undesirable travels, movement and material flows

SDL / SWOT analysis

Strengths

- Good public transportation network

Weaknesses

- Low education level of immigrants

●●●● Many inhabitants of Brabant work outside Brabant which creates traffic

Threats

●● Unequal access to information



Opportunities

Main hypotheses of innovative options

To create a better social cohesion between individuals, programmes with integration as core should be developed more intensely and creating more #interesting# jobs in the region itself should repel forensic traffic to other provinces.

O5 Equity between territories

Sustainable District Logistics (SDL) orients logistics towards:

- Balanced interlocal development (economic, socio-cultural and environmental)
- Development of fair and solidarity relationships between different local / regional contexts (equal accessibility in trade, economy, socio-culture, environment)
- Balanced alliance between logistics operators of different local areas
- Diffusion of connecting high technology systems (e.g. digital cities, interlocal digital networks)

SDL / SWOT analysis

Strengths

- Good location with harbors Rotterdam and Antwerp, and hinterland Germany
- Fair distribution of industry activities in Brabant
- Cooperation with other Provinces in IncoDelta

Threats

- Move away from important industry to the Randstad



Weaknesses

- Not much cooperation with regions in other countries



Opportunities

- Attraction of industry from other areas in The Netherlands
- Cooperation with regions in Germany and Belgium (EURREGIO)



Main hypotheses of alternative options

To improve the inter-local equity between territories the next two actions can be undertaken:

- Structure interregional cooperation at the area of multimodal transport solutions (for example: Tune the departing time schedules of railway, inland waterway, road and intermodal transport services within a mode and between the modes.
- Invest in or attract intermodal service providers

O6 Equity between generations

Sustainable District Logistics (SDL) orients logistics towards:

- Research concerning sustainable logistics scenarios, patterns, methods and technologies
- Education to nourish the ability of future generations to conceive new styles of production and consumption
- Conservation and development of environmental resources
- Strategic impact assessment of the logistics patterns (long-term risks and damaging changes) considering the aspects of the other 9 components on the future generations

SDL/ SWOT analysis

Strengths

- More human capital through immigrants
- Cheap public transport for students

Threats

- Risk of losing traditional culture
- Risk of losing natural areas



Weaknesses

- Integration problems with immigrants
- Increasing use of cars and scooters by youth
- High rate of young people leaving school



Opportunities

- More cultural diversity
- Raising awareness of youth for using public transport



Main hypotheses of innovative options

To create a stable environment between cultures and between generations some exonerates must be declined.

- By means of information programmes the gap between generations would decline. Mutual understanding creates a more stable underground for sustainable development.
- Integration programmes should be developed on a increased scale.
- By stimulating young people to don't leave school.
- By stimulating young people to use public transport. A Dutch proverb is: "Jong geleerd is oud gedaan.", which means: things learnt at young age, will be applied at an older age.

O7 Diversity

Sustainable District Logistics (SDL) orients logistics towards coherence, flexibility, permeability and diffusion of:

- Local identities and fabrics (biodiversity, habitat, socio-cultural heritage, economy vocations, etc.)
- Innovation and development of economic sectors, focused especially on small and medium sized enterprises, income sources both in rural and urban areas, styles of production and consumption (values and ethics)

SDL / SWOT analysis

Strengths	●●	Weaknesses	●●●●
●● Good cooperation between regional organizations		●●● Specialized industry (process industry, transport industry)	
●●● Existence of good networks for road, water and rail			
Threats	●●●●	Opportunities	●●●●
●●●● Low acceptance of new cultures of immigrants		●●● Attraction of more diversified industry	
●● Reduction of diversity in flora and fauna		●●● Stimulation of contact between different cultures	

Main hypotheses of innovative options

To create a more sustainable environment differentiation on diverse economical sectors should be stimulated in order to keep the competitive position.

O9 Networking / Partnership

Sustainable District Logistics (SDL) orients logistics towards:

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

SDL / SWOT analysis

Strengths	●●●●●	Weaknesses	●●●●
●●●●● Strong cooperation with other regions in the Netherlands		●●●● Not much cooperation with regions outside The Netherlands	
●●●● Networks between university and industry		●●●● Lack of cooperation between transport operators and terminal operators	
●●●●● Strong existing networks between public and private sector within Brabant			
●●●●● Partnership between research institutes on sustainability (TELOS) and public authorities			
Threats	●●●●	Opportunities	●●●●
●●● Low interest of local actors in regional development		●●● More business because of central position between important Euro regions	
		●●●● More cooperation between industry	

Main hypotheses of innovative options

To increase networking and partnership in Brabant there are several options:

- Stimulate thinking in intermodal transport solutions (transport chains; starting with the initial origin of the shipped

product and ending at the final destination of this shipment) with regard to foreign destination regions in particular.
- First: promote, and then facilitate the concept of the "virtual transport company"

O10 Participation

Sustainable District Logistics (SDL) orients logistics towards:

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

SDL / SWOT analysis

Strengths

- High vote rate during elections
- Existence of networks with public and private sector
- Citizens have possibility to react on public plans, e.g. concerning infrastructure

Threats

- Delays in regional planning because of active local involvement

Weaknesses

- Low actual involvement of citizens in transport and logistics problems, e.g. waste recycling

Opportunities

- Increasing involvement of local actors in regional planning

Main hypotheses of innovative options

Stimulate the use of green energy, sorting waste and use of public transportation or bike instead of the car.

Social Potential

P1 Perception of a variety of development approaches

The Sustainable District Logistics (SDL) approach is facilitated by:

- Willingness and practices of the logistics stakeholders (businesses, public authorities, civil society and communities) to open their views and ways of thinking, looking at new issues and conceptions on local and logistics development (debates, seminars, interdisciplinary working groups, animation and mobilisation of citizens, new plans on sustainable development, etc.)

SDL / SWOT analysis

Strengths

- Emphasis on sustainability in new infrastructure
- Interaction/cooperation between province, branch organizations and municipalities in spatial policy
- International perspective on economical ecology
- High level of entrepreneurship
- Innovative entrepreneurship is stimulated when sustainable and space-saving
- Multiple use of space and intensified use of space is stimulated

Threats

- Increasing congestion

Weaknesses

- Quality of life perception is low

Opportunities

- Preservation of economic growth with absolute decrease of environmental damage
- Intensified use of existing infrastructure
- Tourism/recreational development combined with maintenance of nature/landscape
- Develop sustainable industrial areas
- Preservation of economic growth with absolute decrease of environmental damage
- Public/private co-operation towards modal shift

Main hypotheses of innovative options

Stimulating of the #transport region#-thinking with special attention paid to sustainable development.

P2 Entrepreneurial creativity and innovation

The Sustainable District Logistics (SDL) approach is facilitated by:

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

SDL / SWOT analysis

Strengths



- High level of entrepreneurship
- Increased mobility in small country-municipalities by innovative small-scale modes of public transport
- International perspective and border-crossing economical and ecological relations
- Ritts-programme Brabant: stimulates innovation
- Dynamic and competitive environment
- Sales of regional products

Weaknesses



- Lack of space for new developments
- Need for sustainable industrial areas

Threats



Opportunities



- Freight traffic preferably by Line-11, Betuweroute and IJzeren Rijn
- Preference of innovative solutions instead of new roads
- Regional business is succeeding in developing new possibilities for further growth
- In co-operation with market develop Underground Logistic Systems and increase possibility of rail transport
- Region-wide restructuring of industrial areas
- Farm for other uses than farming only: tourism, environmentally friendly work-practices
- Stimulation of bicycle use and increase of bicycle infrastructure

Main hypotheses of innovative options

Attracting new innovative (transport) solutions and creating more chances for outsourcing, specializing or restructuring, should stimulate entrepreneurial development.

P4 Enrichment of the local Knowledge to create a cohesive multicultural environment

The Sustainable District Logistics (SDL) approach is facilitated by:

- Open interrelationships between different knowledge and cultures, considering both the current and future components of the local context and their probable impact on logistics processes (programmes for the emersion of black-market activities, exchange programmes with other local systems, projects on multicultural integration, labour and social insertion, etc.)

SDL / SWOT analysis

Strengths

●●●●● Social engagement

●●● Equal share of foreign migration absorbed by the Netherlands

●● Dynamic and competitive environment

● Ambition to preserve diversity, identities of landscape and culture-historical values



Weaknesses

●●●●● Social exclusion of elderly, immigrants and handicapped still needs attention

●●● % Elderly is growing

●●● Individualism is growing



Threats



Opportunities

●●●● New forms of small-scale business in country



Main hypotheses of innovative options

To increase the integration of the elderly, immigrants and handicapped, stimulating reintegration and adapting jobs to special needs by means of special programmes, should enrich national culture as well multicultural groupings.

P11 Social cohesion

The Sustainable District Logistics (SDL) approach is facilitated by:

- Networks of interpersonal relationships, common culture, sense of belonging, mutual trust between local operators and communities (role of the volunteer sector, socio-ethics funds, plans for urban renovation, social inclusion, employment, housing, etc.)

SDL / SWOT analysis

Strengths



- Stimulate re-integration of women, immigrants, commuters, not-working elderly and partly disabled
- Attractive living environment and strong social and political network
- Expectation unemployment growing slightly
- Unemployment in 2001 is only 2 %
- Employment has grown with 11,5% in 1997-2001, in 2001 increase of 5000 jobs
- Restructuring of disadvantaged areas
- Social engagement
- Strong engagement of business
- Equal share of immigration absorbed compared to NL
- Regional co-operation

Weaknesses



- Employment loss in agraric sector
- Number of immigrants is growing
- Growing % of elderly people
- Individualization is growing
- Decrease of traditional influx of school graduates

Threats



- Decrease of social cohesion in terms of participation in social associations
- Social exclusion of elderly, immigrants and handicapped people
- Quality of life in small municipalities is a concern

Opportunities



Main hypotheses of innovative options

To stimulate the economic development in relation with social cohesion a few things should be taken care off:

- the increasing percentage of elderly people for instance by reserving financial funds for the coming years.
- the outflow of people from the agricultural sector. Stimulate working in the agricultural sector, by means of special information or subsidies.

Dynamics

D1 Enhancing problem understanding

Changes in favour of Sustainable District Logistics (SDL) can be produced by:

- Increasing the capacity of the logistics stakeholders to enlarge scope and perspective of analysis in order to nourish innovation and creativity that are based on social and environmental awareness and responsibility; this means, for instance, to consider the close interrelationships between organisations, territories, spatial and temporal dimensions

SDL / SWOT analysis

Strengths

- Well-educated population
- Creation of Indexcentre Mid- and West-Brabant in order to bring together knowledge and business
- ICT services, knowledge and research companies account for 2% of total employment
- Excellent education and health care
- Tradition in regional co-operation
- "Social Economic Co-operation" (SES)/ Center of commerce research in efficient spatial planning
- Existence of political networks, platforms, action programmes in regional perspective
- In 2000 a regional debate was organized, 250 participants from the region
- International perspective on economics ecologics

Threats



Weaknesses

- Lack of knowledge infrastructure, research centers and higher education
- Lack of innovation in business



Opportunities

Main hypotheses of innovative options

By means of (adaptation of) education programs the existing mismatch between "supply" and "demand" of adequately educated people in the logistic sector could be reduced. A deliberate side-effect of this upgraded educational level will be that the innovation in transport business also increases.

D3 Negotiation and co-decision

Changes in favour of Sustainable District Logistics (SDL) can be produced by:

- Improving the capacity of the logistics stakeholders to determine strategies that have the wider possible consensus; this means to develop a culture of participation, attributing, for instance, equal decision role to the different interest groups (economic, social and environmental)

SDL / SWOT analysis

Strengths

- Interaction/cooperation between province, branch organizations and municipalities in spatial policy
- Existence of political networks, platforms, action programmes in regional perspective
- Region-wide restructuring projects for industrial areas
- Strong political and social network
- In 2000 a regional debate was organized, 250 participants from the region
- Tradition in regional co-operation



Weaknesses

Threats

Opportunities

Main hypotheses of innovative options

More regional debates on strategic transport issues should be organized, because these kinds of debates increase the perception on the region with respect to its linking transport function. Furthermore, cooperation between parties involved in the transport process could be stimulated, as all stakeholders will become acquainted with the points of view of the other stakeholders.

D4 Creation of a shared vision

Changes in favour of Sustainable District Logistics (SDL) can be produced by:

- Improving the capacity of the logistics stakeholders to think strategically in a long-term perspective; this means, for instance, to define transparent business and territorial purposes and to follow them with coherent organisational behaviours (missions)

SDL / SWOT analysis

Strengths

- Existence of political networks, platforms, action programmes in regional perspective
- Interaction/cooperation between province, branch organizations and municipalities in spatial policy
- Professional freight transport is increasing by internationalization, outsourcing and order-directed production
- Scale of operations and co-operation in transport is increasing
- Region-wide agreements on youth-care
- Region-wide restructuring projects for industrial areas
- Strong political and social network
- Strong social engagement
- In 2000 a regional debate was organized, 250 participants from the region



Weaknesses

- Increasing competition in transport by EU-accessing states



Threats

Opportunities

Main hypotheses of innovative options

Strengthen the competitive position before the entry of the new accessing countries to the EU by specializing on "superb transport performance".