## **EU Best Practices Guide**

## on Training for SME's and Logistic Demand and Supply Business Networking



## EU Best Practices Guide on Training for SME's and Logistic Demand and Supply Business Networking

This book was compiled from contributions of all CASTLE partners and is published by the Stuttgart Region Economic Development Corporation (WRS)

#### Content:

Anneliese Heitzinger - Development Agency of Carinthia (EAK) Piotr Nowak - Institute of Logistics and Warehousing (ILIM) Regina Pethö - Pannon Business Network Association (PBN)

Editing and Design: Ingrid Eibner - Stuttgart Region Economic Development Corporation (WRS)

Cover Photo by Pedro Ribeiro Simões (altered)

WRS - Stuttgart Region Economic Development Corporation (Wirtschaftsförderung Region Stuttgart GmbH) Friedrichstr. 10 70174 Stuttgart Germany

Contact: Holger Bach E-mail: holger.bach@region-stuttgart.de Internet: http://wrs.region-stuttgart.de

## Contents

Intro	Introduction	
Logi	istics Training for SMEs	3
1.	Introduction	3
2.	Selected best practices	4
3.	Technical and organizational implementation of Best Practices	16
4.	Financial and legal framework of Best Practices	17
5.	Critical success factors	18
6.	Monitoring of results – project indicators	20
7.	Concrete results achieved	22
8.	Lessons learnt	24
9.	Stakeholders of presented Best Practice initiatives (Public's role)	25
Logi	istics Demand Business Networking Best Practice Guide	27
1.	Best practices overview	27
2.	Cooperational issues	31
3.	Problems, critical success factors, lessons learned	35
4.	Concrete results of analyzed best practices	37
5.	Contacts and other interesting information	39
Logi	istics Supply Business Networking Best Practice Guide	41
1.	Introduction	41
2.	Selected best practises	46
3.	Technical and organizational implementation of best practices	51
4.	Financial and legal framework of identified BP	52
5.	Critical success factors	53
6.	Monitoring of results	53
7.	Concrete results achieved	53
8.	Lessons learnt	53
9.	Stakeholders of presented Best Practice initiatives (Public's role)	54
Con	clusions	55

## Introduction

The "EU Best Practices Guide on Training for SME's and Logistic Demand and Supply Business Networking" comprises a selection of best practices about a wide scope of initiatives in logistics made in work package 3 of the CASTLE project. Component 3 targets are the identification, analysis, transfer and exchange of policy best practices for SMEs logistics, with specific target on clustering, networking and cooperation in logistics. It's goal is to improve policy making with 2 complementary viewpoints, as both can be a concrete input for policy makers to innovate and improve their policies: 1) transfer of best logistics policies for SMEs; 2) transfer of SMEs cooperation in logistics.

These 2 views are targeted to the following policy areas:

- 1. strengthening the logistics supply and the logistics industry,
- 2. improving the logistics demand in the production systems,

#### 3. strengthening the logistics training.

The book has the aim to consolidate the relevant information obtained on the occasion of the EU-survey of best practices from regions outside the CASTLE partnership in three above mentioned areas. Selection of best practices was made on the basis of the CASTLE "consolidation of the best practices on EU level - methodological document". Following steps were carried out according to this menthodology:

- Desk work / internet research in order to identify Best Practices (BPs),
- Selection of 10 most suitable BPs,
- Getting in contact with the relevant experts of each BP in order to fill in the standardized CASTLE questionnaire (template),
- Description of 10 BPs on the basis of the questionnaires filled in by BP experts and consolidation in the present BP-guide,
- Selection of 3 BPs for site visits and planning of visits.

The methodological document of activity 3.6 plans the consolidation of best practices in regions outside partnership by means of 3 joint European surveys and 9 on site visits. All together the 30 best in 3 thematic areas were identified by defining:

- 1. Implementation steps
- 2. Critical success factors
- 3. Concrete results
- 4. Lessons learnt
- 5. Public's role

The best practice consolidation should support the exchange of know-how between regions in order to strengthen logistics training and cooperation for SMEs systems and thus increase regional competitiveness and sustainable development. Best practice consolidation should:

- 1. Help policy makers to improve their capacity of building logistics policies, support regional economic competitiveness and logistics environmental sustainability (win-win policies).
- 2. Create a logistics culture, through the transfer and the exchange of best practices; create new knowledge and skills for logistics improvement.
- 3. Network public & private bodies in the field of logistics and business competitiveness as basis for policy making (LoCC concept).

## **Logistics Training for SMEs**

## 1. Introduction

The lack of logistics innovation is also due to the lack of adequate logistics training systems. Being aware of this, logistics training is one of the main factors in which all the CASTLE partner regions are interested and try to do efforts with the aim to support a better qualification of human resources within the logistics sector. Therefore the project CASTLE was also born to answer regional needs to improve SMEs logistics policies and especially logistics training and education for SMEs systems.

The present document has the aim to consolidate the relevant information obtained on the occasion of the EU-survey of best practices from regions outside the CASTLE partnership in the fields of logistics training. On the basis of the CASTLE "consolidation of the best practices on EU level - methodological document" (Output 3.6) project partner 09 – Development Agency of Carinthia - carried out the whole survey by realising the following steps:

- Desk work / internet research in order to identify Best Practices (BPs),
- Selection of 10 most suitable BPs,
- Getting in contact with the relevant experts of each BP in order to fill in the standardized CASTLE questionnaire (template),
- Description of 10 BPs on the basis of the questionnaires filled in by BP experts and consolida-tion in the present BP-guide,
- Selection of 3 BPs for site visits and planning of visits.

The best practice consolidation should support the exchange of know-how between regions in order to strengthen logistics training for SMEs systems and thus increase regional competitiveness and sustainable development. As further steps the know-how on analysed Best Practices will be presented on the one hand within the International Castle Forums and on the other hand all project partner regions will organise logistic Forums in their regions in order to make the knowledge relating to the identified Best Practices also accessible to regional decision/policy makers, logistics key players and companies.

The Best Practice examples within the fields of logistics training range from logistics educational offers of specialised universities and universities of applied sciences addressing especially logistic professionals (e.g. cooperation of Dresden International University and University of Technology Dresden, University of Applied Sciences at the FH bfi Vienna, Danube University Krems) to practices with special support of SMEs by offering and initiating innovative logistic solutions (e.g. Automotive Academy Styria, Strengthening of Knowledge Management, INVALL Innovation Value Added Logistics Limburg, Update Logistics, The Stairway) and electronic logistic platforms (INeS Danube, ELAbestLog, Stairway Interactive) and include – among others - also results of excellent EU-projects in this field. They all have in common the aim to increase logistic SMEs' competitiveness by strengthening logistic skills.

## 2. Selected best practices

The description of the 10 European best practices identified and selected in the fields of logistics training can be found in the following. Described practices are located in Austria, Germany, Belgium, the Netherlands and Great Britain and include two European projects.

## 2.1 Automotive Academy Styria - AAS (Region of Styria)

Responsible body:	ACstyria Autocluster GmbH – automobile cluster of Styria
Location:	Region of Styria / Austria
Project theme:	Platform for comprehensive automotive training customised to needs of partner companies
Public's role:	Financing
Project duration:	AAS was founded in 2007, ongoing

Emanating of the "platform on professional qualifications", organised by Styria's automobile cluster (ACstyria Autocluster GmbH) as a professional contact for all educational issues, the Automotive Academy Styria AAS was founded in 2007. AAS was set up and implemented as a platform for industry-specific training especially for the areas automotive technology and automotive business in Styria/Austria. In addition a networking and coordination of existing automotive learning opportunities is ensured. AAS also offers central trend monitoring, specific surveys of demand as well as innovative impulses for a low-cost and efficient occupational training policy.

The ACstyria Autocluster GmbH, founded in 1995, represents one of the strongest economic clusters in Styria with 180 partner companies (45.000 employees).

#### Basic elements of this project:

- AAS is the first and only institution in Austria, which offers a comprehensive automotive training system that is specifically geared towards the requirements of partner companies.
- The offered training is broken down into three sector-specific areas (automotive technology, business and periphery) as well as into three "training levels" (basic, medium and premium).
- AAS offers an independent Automotive Academy Styria Certificate based on international quality criteria (EQF European Qualifications Framework).
- AAS offers open courses and comprehensive training courses as well as in-house company training.
- In many cases AAS acts as a training broker and works closely together with external educational institutions. A list of criteria of Core-Competences of AAS is giving the framework requirements.

- In the frame of the Summer Academy Automotive Academy Styria establishes itself as in international automotive training centre.
- Participants profit by long-term utilisation of synergies and knowledge transfer through integration of affiliated companies with training centres.

#### Role of the public:

Basically all public bodies involved give financial support and thus make this specialized vocational training possible. The Regional Government of Styria supports also the building of co-operations with other public bodies.

### 2.2 Update Logistics (Region of North Rhine-Westphalia) "Logistics improves vocational education efforts"

Responsible body:	DiaLog Gesellschaft für Service und Kommunikation mbH
Location:	Region Nordrhein-Westfalen (North Rhine-Westphalia), Germany
Project theme:	Alternative, innovative form of vocational logistics training in selected regions
Public's role:	Funding
Project duration:	from 01.01.08, ongoing (The preceding project "LEA! Logistik erweitert Ausbildung!" - "logistics improves education" ran from 16.02.04 to 30.11.06)

The project was developed within the structural funds programme JOBSTARTER - focusing on structural improvements of training in selected regions - and initiated by the Association of Freight Forwarders and Logistics Operators. The aim was to motivate logistics companies to offer more training positions and thus giving companies support to cover their demand for qualified staff in the fields of logistics and contributing to secure the competitiveness of the logistics industry.

The legal basis in Germany is the dual system of initial vocational training and company-based continuing vocational training. Specifically in the logistics industry, there is a big proportion of small enterprises that offer specialist services. Vocational training asks for a broad scope of tasks the trainee has to pass through while completing his dual education. Especially small enterprises are not able to offer this broad scope of tasks. By combining two companies working in different areas of activity within logistics, this obstacle can be overcome. As shared training is a complex procedure that involves consider-able administrative knowhow, companies can become members of training association LEA! undertak-ing administrative issues.

The basic elements of this project were developed within the preceding project "LEA! Logistik erweitert Ausbildung!" ("logistics upgrades education") and advanced within "Update Logistics":

Shared training (Verbundausbildung): Basis of the project is the idea to offer "cooperative company training" enabling also little companies to participate and to offer training possibilities. These companies sometimes cannot cover the wide scope of logistic activities necessary to provide satisfactory training. Therefore the training takes place in two companies (training network) keeping the quality of the training high and using synergies.

- Training association "Ausbildungsverein LEA!": A special association was founded undertaking all administrative issues, if required. The training companies have the option to be only responsible for the on-the-job-training. Apprenticeship contracts are concluded by the association.
- Support of logistics companies and forwarders: Depending on the experience the training company already has acquired, the project offers tailored support, ranging from information on administrative aspects of formal training to pre-selection of applicants or to creating direct relations between companies and local schools.

#### Role of the public:

- The Federal Institute for Vocational Education and Training (Bundesinstitut für Berufsbildung BIBB) acting on behalf of the German Federal Ministry of Education and Research (BMBF) is responsible for the programme JOBSTARTER.
- The project was funded by the BMBF and the European Social Fund.

# 2.3 INeS Danube - Inland Navigation eLearning System for the Danube region (EU)

Responsible body:	via donau- Österreichische Wasserstraßen-Gesellschaft mbH (coordination)
Location:	INeS Danube is available for free at www.ines-danube.info
Project theme:	Logistics e-learning platform
Public`s role:	-
Project duration:	01/06/2008 – 31/07/2010 (eWITA project) Launch of the platform INeS Danube (and INeS RMS) in June 2010.

INeS Danube is an e-learning platform open to all interested parties for free. It provides a modern form of education in the fields of logistics on inland waterways in the Danube region with particular reference to intermodality. The platform caters to the needs of different target groups, whether pupils or students of educational institutions focusing on logistics, practitioners like shipping companies or the manufacturing industry.

INeS Danube has been created within the EWITA project – European Web Platforms and Training Concepts for Intermodal Inland Waterway Transport (Marco Polo II-Programme) and is (together with INeS RMS, the platform for the Rhine-Maas-Schelde region), a follow up of INeS – Inland Navigation eLearning System, developed within the eWIT project - Web-based Intermodal Inland Waterway Transport Training for Europe (Marco Polo-I-Programme). The concept developed within eWIT was substantially updated and extended with respect to learning levels, content, tools and languages.

The developing period of the platforms was characterised by high participation of partners from industry and educational institutes having signed a letter of commitment stating their support by testing the e-learning platform, giving feedback, communicating their needs and requirements, testing the platform prototypes, using one of the platforms in their company disseminating information on the project across their specific network. For the successful realisation five different roles were defined: Platform Coordinator, Content Partners (updating the existing content, translating), Didactical Partners, Multimedia Partners and Technical Partner (technical setup and maintenance).

#### Basic elements of this project:

- The learning platform is divided into six thematic chapters: Waterways, Inland Vessels, Ports & Terminals, River Information Services (RIS), Market & Organisation, Intermodal IWT.
- Learning content is accessible in English, German, Romanian and/or Dutch for free.
- INeS Danube provides content for the specific learning levels of its users:
  - The basic course.
  - Target groups such as ports, manufacturing industry and shipping companies find a selection of content relevant to its profession.
  - Specific information can be accessed by clicking on a topic list.
  - Educational institutions/experts can create individual courses within specific learning groups.

#### Role of the public:

Marco Polo is a programme for the economy and public bodies are not allowed to be direct partner. The project coordinator via donau – Österreichische Wasserstraßen Gesellschaft mbH is a subsidiary company of the Austrian Ministry of Transport, Innovation and Technology. The technical partner of INeS Danube is the University of Applied Sciences Upper Austria.

# 2.4 Logistics Management at the DIU Dresden International University (Region of Saxony)

Responsible body:	The Dresden International University DIU is responsible to organize the programme, the academic responsibility lies with the University of Technology Dresden TUD.
Location:	City of Dresden, Region of Saxony, Germany
Project theme:	Postgraduate logistics programme
Public`s role:	PPP of private university and state university
Project duration:	ongoing since 2004

The postgraduate programme "Logistics Management" is offered as a part-time study in German language for German specialists and executives and as a full-time study in English language for foreign students. The MBA programme "Logistics Management" is intended for candidates with a strong inter-est in understanding logistics and operations – in either manufacturing or service industries.

Admission requirements are

- a Master's / Bachelor's Degree (4 years degree) preferably in Economics or Business Administration (equal to 240 ECTS) or
- a Master's / Bachelor's Degree preferably in Economics or Business Administration (equal to 180 ECTS) and additional studies, examinations in one of the named field of studies equal to 60 ECTS and
- usually 2 years of work experience in the fields of Logistics, Production, Sales, Controlling or IT

#### Basic elements of this project:

- The part-time master programme lasts for 24 months and is conducted in German language.
- The full-time master programme lasts for 18 months and is conducted in English language.
- Both programmes are structured modularly. The concept covers 40% economic basics and 60% logistics specific content. The programme includes six compulsory modules:
  - Module 1 Strategic and Operational Management
  - Module 2 Controlling and Financial Management
  - Module 3 Project Management
  - Module 4 Supply Chain Management I
  - Module 5 Supply Chain Management II
  - Module 6 Applied Logistics Management
- Since January 2008 this programme is the first and the only one in Germany which is accredited by the European Logistics Association (ELA) according to the Strategic Level introduced by the ELA.
- Since December 2009 the programme is also accredited by ZEvA (Zentrale Evaluations- und Akkreditierungsagentur).

#### Role of the public:

The whole initiative is a public private partnership: The Dresden International University DIU as a Private University can offer part-time programs which cannot be done by the University of Technology TUD as state university itself. The TUD as a state university has the academic leadership for the pro-gramme and awards the academic degree "Master of Business Administration in Logistics Management".

## 2.5 Skills for Logistics: The Stairway and Stairway Interactive (England)

Responsible body:	Skills for Logistics
Region:	England, United Kingdom
Project theme:	Career framework for the logistics sector and software management tool
Publics role:	Funding and monitoring
Project duration:	Ongoing

Skills for Logistics, the Sector Skills Council for the UK's freight logistics industries, identified that a significant barrier for aspiring entrants to the sector was the lack of a clear career path for logistics employees at all levels.

Based on wide consultation with employers of all sizes across the sector and around the UK Skills for Logistics developed a web-based and hard copy sector specific career and competency framework for the logistics sector, known as "The Professional Development Stairway" (The Stairway). It spans from unskilled entry level (step 1) through to the level of director of a global logistics concern (step 12) and applies across the whole logistics sector. The steps are clustered into operative, manage-ment and senior management zones. The Stairway is a full competency framework with some 470 competences covering 34 different roles. It comprises the three main skill types found in different pro-portions in all job roles: Craft Skills (needed to carry out the role e.g. driving skills or load planning skills), Core Skills (necessary to ensure that the craft skills are applied properly in the workplace e.g. customer service skills, communication skills, interpersonal skills) and Specific Skills (necessary to work effectively in specific supply chains e.g. food handling and temperature controlled environments in the food supply chain).

The Professional Development Stairway is available free of charge.

This framework has been operationalised into the software management tool Stairway Interactive that enables employees and stakeholders to plan and map career progression. It provides the foundation on which to base structured continuous professional development programmes. Stairway Interactive provides a way to map job functions to the sector approved profiles which are underpinned by national standards. Users can enter their current qualifications and training experience and identify skills gaps and training needs and indicate the most relevant qualifications and providers. Stairway In-teractive has been piloted with a number of small and large sector companies. This has resulted in a number of changes being made to the tool that are currently being uploaded. Employers will be in-volved in a user group to ensure that the tool continues to reflect the needs of the sector.

#### Basic elements of this project:

- For companies: A fully integrated development tool that companies in the logistics sector can use to support all human resources related functions and ongoing development / upskilling of their staff.
- For individuals: A clear link between job competences and progress, signposting to development opportunities and a full record of achievements gained.

#### Role of the public:

Skills for Logistics is registered as a Charity in England & Wales, partially publicly funded and licensed by the UK Government.

# 2.6 The INNVALL-project - Innovation Value Added Logistics (Province of Limburg)

Responsible body:	Fontys ILEC - International Logistics Expertise Centre
Region:	Province of Limburg, The Netherlands
Project theme:	Knowledge transfer from the University to SMEs
Publics role:	Subsidize and initiate the project
Project duration:	2008 - 2010

The INNVALL project is based on the request of SMEs being operative in the logistics sector. The aim of INNVALL is to support SMEs to innovate and renew their logistics activities and services in such a way, that they can add a relevant value to the today's and future international supply chains.

#### Main participants in the project:

- Fontys ILEC in Venlo International Logistics Expertise Centre of Fontys University of Professional Education is part of the Fontys institute "Technology and Logistics" and operates as an intermediary between business and University. ILEC offers:
  - Research and consultancy services. Each consultant has graduated in a Logistic subject and/or is experienced in logistics practice.
  - Logistics training:
  - . "Compact- course logistics management", taking 1 year and offered for professionals.
  - International Logistics and International Supply Chain Management master courses, taking one year and offered partly in the Netherlands (Fontys University of Applied Sciences in Venlo) and partly in the United Kingdom (University of Plymouth).
- Syntens Consultants in Roermond: Syntens is an innovation network for SMEs. They connect supply and demand of knowledge between SMEs and knowledge institutes.
- In the first part of the project in total 13 SMEs are participating.

#### Basic elements of this project:

- The main focus of the INNVALL-project is on:
  - Transferring logistics and supply chain knowledge from the University to SMEs by the use of workshops, innovation sessions, courses, trainings and excursions,
  - Gain new knowledge on project relevant topics (Value Added Services and Logistics, Port-2-port and port-2-business communication in the Hinterland-connections and Modal-Shift/Intermodal transportation) by means of desk-research and expert interviews,
  - Develop and publicize procedures and tools to also support SMEs, which were not initiators of the project.

- Fontys ILEC has a leading and executing role.
- Syntens role is executing and advisory to the other parties involved.

#### Role of the public:

The Netherlands Department of Commerce subsidizes the project. Public institutes try to stimulate Universities and companies in the fields of logistics and supply chain management. Other public institutes involved were town, district and province offices. They had a supporting role.

# 2.7 Strengthening of Knowledge Management Practice in logistic SME (Region of Bremen)

Responsible body:	ISL - Institute of Shipping Economics and Logistics (Institut für Seeverkehrswirtschaft und Logistik)
Region:	Region of Bremen, Germany
Project theme:	Development and implementation of Knowledge Management techniques in logistic SMEs
Publics role:	Funding, initiating, dissemination of results
Project duration:	10/2006 - 12/2008

The project was run within the initiative "Fit by Knowledge - Knowledge Solutions for medium-sized businesses" of the Federal Ministry of Economics and Technology (BMWi) and carried out by the ISL Institute of Shipping Economics and Logistics, department of Logistics Systems. The aim was to foster the utilisation and the transfer of innovative methods and tools in the fields of knowledge management in logistic SMEs.

The initial situation was characterised by the nonexistence of recorded use of holistic knowledge management methods. There existed only rudimental practices in some logistic companies. This absence of good practices was an obstacle to the circulation of knowledge management. Furthermore it was realised, that recommendations developed in big enterprises or by scientists very often are classified as too abstract by SMEs. In these cases a translation of the methods in concrete and understandable recommendations is needed.

#### Basic steps of this project:

- Step 1: Development and implementation of concrete knowledge management concepts in 4 pilot SMEs and thus creation of Good Practice.
- Step 2: Systematic processing of results and development of industry specific reference models based on the Good Practices developed.
- Step 3: As logistics is a typical "networking industry" (cooperated added value) it was important to check, if there was a need for knowledge management activities across companies along the supply chain and how they could be implemented in a reasonable way.
- Step 4: Dissemination of results, knowledge and findings within the whole logistics sector.

• Step 5: Organisation of workshops with representatives of additional logistic SMEs in order to present results and enable an intensive exchange of experiences with the pilot companies. More than 90 companies could be reached until now.

#### Role of the public:

The project was funded by the German Federal Ministry of Economics and Technology (BMWi). Public institutions, especially the BMWi undertook to disseminate project content and results in other German regions.

## 2.8 LOGT - Logistics and Transport Management (Region of Vienna)

Responsible body:	University of applied sciences at the bfi Berufsförderungsinstitut Vienna
Region:	Region of Vienna, Austria
Project theme:	Career parallel study programme
Publics role:	State university
Project duration:	ongoing since 2002/2003

The FH bfi Vienna (university of applied sciences at the bfi Berufsförderungsinstitut Vienna) is offering the programme Logistics and Transport Management LOGT in the form of a career-parallel study programme on two levels. The bachelor programme is provided full-time and part-time, the master programme part-time. Courses are held in German language.

Students apply for the programmes and have to pass a selection process (interview, test). The best students are invited to take part.

The FH bfi Vienna has been awarded the ECTS-Label and the Diploma Supplement Label by the EU. With these EU-labels, the FH bfi Vienna reaffirms its quality in Austria and is one of only 10 tertiary education institutions being awarded both labels.

	Bachelor	Master
Admission procedure:	Interview, MC test (BA, IT applications, English)	Written application, MC test, structured interview
Admission requirements:	School-leaving exams (Austrian and foreign equivalent), completed secondary vocational school or apprenticeship (additional exams in German, English and mathematics required)	Completion of a law /social / Engineering studies / business / geography / industrial logistics degree (in Austria or equivalent degree abroad; proven qualifications in logistics, transport, traffic (4 ECTS), business administration (10 ECTS), law studies (4 ECTS), IT (4 ECTS), English (8 ECTS, native speakers are exempt)
Duration of studies:	6 semesters	3 semesters

#### Basic elements of this project:

Number of study places:	15 part-time per year	
50 full-time per year	33 part-time per year	
Study periods:	Three evenings a week and Saturdays (part-time), Mon-Fri (full-time)	Three evenings a week and Saturdays
Tuition fees:	€ 363.36 per semester	€ 363.36 per semester

#### Role of the public:

The non-profit company Fachhochschule of bfi Wien Gesellschaft m.b.H. acts as the course-providing body.

## 2.9 Danube Professional Logistics & Supply Chain Management (Region of Lower Austria)

Responsible body:	Danube University Krems - the University for Continuing Education	
Region:	Krems, Region of Lower Austria, Austria	
Project theme:	Bilingual university logistics programme	
Publics role:	Funding and sustaining	
Project duration:	ongoing since 2004	

Danube University Krems is a State University specialized on studies for further education. The university programme "Danube Professional Logistics & Supply Chain Management" offers general-management-know-how and current methods and techniques of logistics for industries, trade, logistics-service and infrastructure. Especially the part-time courses are targeted to the needs of working logisticians.

The programme is broken up into seven general-management modules and four concentrated modules in German/English (bilingual) language. Building on the first year (general management modules), the branchoriented second year offers know-how in the areas of strategic logistic management, global logistics, and supply-chain-flow. The essential concepts of the second year are that logistics is embedded in the entire business leadership and business strategies and logistical concepts are connected.

The programme is accredited by the FiBAA Foundation for International Business Administration Accreditation<sup>1</sup>.

<sup>1</sup> The Foundation for International Business Administration Accreditation is an international accreditation agency mainly active in Europe. It aids higher education institutions in the further development of their Bachelor-, Master-, and PhD programmes. This is achieved through an intensive accreditation process involving the higher education institution. On the one hand this process aims at quality improvement, on the other it aims at the accreditation of the programme. This quality process comprises the consultation to quality management, the appraisal of the program concerning its structure and contents as well as the fulfilment of the requirements which are needed in order to bestow the FIBAA-quality seal.

#### Basic elements of this project:

- Academics and equally qualified logisticians with multiple years of job experience are defined as target group.
- There are two possible certificates/degrees depending on number of terms and modules selected:
  - Master of Business Administration MBA: 4 terms part-time (3 terms full-time), 11 modules each 6-7 days.
  - Advanced Logistics Manager: 2 terms, part time, 1 Module Basics, 3 Specialization Modules each 6-7 days.
- The full-time master programme lasts for 18 months and is conducted in English language. The parttime master programme lasts for 24 months and is conducted in German language. The advanced Logistics Manager lasts for 12 months.
- All programmes are structured modularly. The concept covers 40% economic basics and 60% lo-gistics specific content.

#### Role of the public:

The Danube University Krems is sustained by the Republic of Austria and the regional Government of Lower Austria.

### 2.10 ELAbestLog – virtual logistics platform (Belgium)

Responsible body:	European Logistics Association ELA	
Region:	Internet platform	
Project theme:	Information platform in the fields of logistic knowledge	
Project duration:	Ongoing	

The BestLog (Best Practices in Logistics) project was a research project initiated by the EU Commission and financed within the 6th Framework Programme. The BestLog project started in 2006 and ended at the beginning of 2010. BestLog presented case studies and provided databases containing comprehensive information on many relevant logistics topics including Logistics Education, Logistics Media and Logistics Awards. It included a database containing offers of European logistics education.

BestLog is continued by ELAbestlog from 1st March 2010 on. The European Logistics Association ELA, one of BestLog's former project partners, took over the methodology and outcome of the Best-Log project in order to assure the continuation of this work.

ELAbestLog is therefore the implementation of BestLog offering a comprehensive logistic information bank. The main aim of this platform is to enable Logistics and Supply Chain players in Europe to learn more about best practice and to foster the exchange of experience. Due to the fact that the platform already consists of a European network of professionals coming out of the national member organisations of the European Logistics Association ELA more than 50.000 logistics professionals are already included.

#### Detailed content of the platform:

- A comprehensive information bank with
  - Best Practice case studies,
  - a Logistic Educational Directory with over 800 courses listed,
  - a Logistic Media Directory with 166 media links listed,
  - a Logistic Award Directory with 53 awards listed,
  - Best Practice Tools.
- A range of forums and blogs.
- A shop, where you can purchase at preferred prices books, event tickets, educational credits, market research studies, tools.
- Invitations to ELAbestLog organised workshops, trainings and events.
- Useful links.
- Certification labels and a logistics glossary are in preparation.

Any company, institute and individual not being a member of an ELA National Member Association may join the ELAbestLog Community by paying a small community fee. The entry to ELAbestLog is free of charge for any company and institution that is a member of an ELA National Member Association.

#### Role of the public:

BestLog was developed and financed within the 6th Framework Programme.

## 3. Technical and organizational implementation of Best Practices

Due to the big variety of selected Best Practices the steps of project implementation cannot be integrated into one standard scheme.

Four of the ten examples are results of the sustainable development or update of a successful predecessorproject. Two of these predecessor projects have been developed within the frame of a EU-project (Marco Polo Programme and 6th Framework Programme), thereof one has also been further developed within a EU-follow-up-project (Marco Polo). All projects are characterised by continuous development from project start till the end of the project, in many cases even after official end of the project.

Programmes of Universities and Universities of Applied Sciences have been developed according to legal requirements relating to the development of curricula and accreditation process. During phase of project development intensive needs analyses and direct contact with potential users/participants – in one case including even the testing of prototypes - played a big role in order to assure the involvement of companies and meeting of their needs. Three of the Best Practices carried out pilots with a certain number of sector companies.

In one case a special association was set up offering project related services in order to support participating companies especially in administrative issues. The development of Good Practice and systematic processing of results and development of industry specific reference models based on the Good Practices developed played a crucial role in one project.

Including follow-up projects and dissemination activities - reaching additional SMEs - all projects are still ongoing:

No.	title of the Best Practice	start of project	end of project
1.	Automotive Academy Styria AAS	2007	ongoing
2.	Update Logistics	2008	ongoing
3.	INeS Danube – Inland Navigation eLearning System for the Da- nube region	06/2008	07/2010 Platform ongoing
4.	Logistics Management at the DIU Dresden International University	2004	ongoing
5.	Skills for Logistics: Stairway and Stairway Interactive	_	ongoing
6.	INNVALL – Innovation Value Added Logistics Limburg	2008	2010 Follow-ups ongoing
7.	Strengthening of Knowledge Management Practice in logistic SMEs	10/2006	12/2008 dissemination of results ongoing
8.	LOGT – Logistics and Transport Management	2002/2003	ongoing
9.	Danube Professional Logistics & Supply Chain Management	2004	ongoing
10.	ELAbestLog	-	ongoing

## 4. Financial and legal framework of Best Practices

In principle financing of the Best Practice examples is divided between public and private resources. Considering different project phases and different types of projects public financing is more or less predominant:

- Public funding (regional governments, national/federal ministries/departments etc.) often on the occasion of regional/national programmes - is predominant especially during the phase of project development and in pilot phases.
- After the pilot period some of the projects are offered on the open market and services rendered are financed by participating SMEs themselves or companies are asked to purchase licences or pay a kind of fee (private financing).
- In case of educational offers of State Universities and Universities of Applied Sciences public funding is predominant, although educational programmes are partly financed by tuition fees of participants, which should cover (partly) variable costs (mixture of public and private financing).
- In the case of both electronic platforms the development of the platform and the first filling with contents took place within the framework of a European programme and therefore was financed partly or in one case even by 100% out of public EC funds. In both cases projects are remaining operative after the official end of the EU-project. On the one hand the use of the e-learning platform is for free on the other hand the use of the information platform depends on the payment of a small community fee or on a membership in certain national associations.
- The development of certain frameworks, tools etc. is very often financed under regular tasks of the project administrating companies, irrespective if they are private or public companies.

In no case the entire budget necessary for project development and implementation came only from private sources.

From a legal point of view projects were developed within existing (private limited) companies, (University) institutes, charities, associations, with private or public ownership or on the base of project specific working agreements. Only in one case a new – project specific – association was founded.

As critical success factors differ in case of different projects, projects have been grouped into 3 main groups. The main critical success factors for each group are gathered in the table below:

Type of Best Practice	Critical success factors
Alternative, innovative training solutions and spe- cific logistics training offers especially for working peo- ple / logistic SMEs	<ul> <li>Constant and intensive needs-analyses</li> <li>Considering of feedback of participants and related companies</li> <li>Intensive preparation of the project</li> <li>Personal support of the heads of participating companies</li> <li>Selection of appropriate candidates that have a clear understanding of the concept and the implications</li> <li>Willingness of the participating companies to give away critical data like earnings, costs and names of suppliers and customers.</li> <li>Awareness raising of staff members in order to avoid fears and resistance to innovation and implementation of new tools</li> <li>Identification of the problem to be solved by employees</li> </ul>
Electronic logistics know- ledge/learning platforms	<ul> <li>High participation of educational institutions and practitioners during developing period (e.g. letter of commitment stating their support)</li> <li>The availability of an open source learning management system</li> <li>Project partners that are accustomed to work with such a system</li> <li>Flexibility of e-learning</li> <li>Getting the product to market</li> <li>Promoting and selling the tool to potential customers</li> <li>Ongoing review to ensure that the tool is reflective of the sector needs</li> <li>Existence of a European network of professionals/potential users</li> <li>Network of participating partners in the phase of project development</li> </ul>
Logistic educational offers of Universities and Univer- sities of Applied Sciences	<ul> <li>Cross-linking of management know-how and logistic know-how</li> <li>Focus on Supply Chain Management being part of companies' strategies</li> <li>Taking into consideration the situation on the economy/labour market (logistics and transport industry are pro-cyclical sectors of the economy)</li> <li>Dedicated teachers/lectures</li> <li>Committed students</li> <li>Experience for many years in the fields of Master of Business Administration</li> </ul>

Within the group "Alternative, innovative training solutions and specific logistics training offers especially for working people / logistic SMEs" a good and intensive preparation of the project plays a crucial role including awareness raising of staff members in order to avoid fears and resistance to innovation and implementation of new tools. Constant and intensive needs-analyses as well as permanent consideration of the feedback of participants and related companies are of big importance especially in the case of specific training courses. In one case the personal support of the heads of the participating companies as well as the selection of appropriate candidates that have a clear understanding of the concept was stressed. As critical

company data is important to make a based on facts analysis, the willingness of the participating companies to give away critical data like earnings, costs and names of suppliers and customers could be of big importance for the success of the project results.

Within the group of projects relating to "Electronic logistics knowledge/learning platforms" big importance was given to high participation of practitioners during the developing period (e.g. letter of commitment stating their support). In case of the electronic learning platform also the participation of educational institutions during the development of the project was stressed and the flexibility of the e-learning system in order to ensure that the tool is reflective of the sector needs, which should be based on continuous review. The availability of an open source learning management system and project partners that are accustomed to work with such a system are also crucial. After implementation of an electronic platform it is important to get the product to market by promoting and/or selling the tool to potential customers. In one case the existence of a European network of professionals/potential users has been stated as a big advantage in this context.

Due to their specific characteristics "Logistic educational offers of Universities and Universities of Applied Sciences" compose a separate group of projects. Of big importance is the cross-linking of management know-how and logistic know-how as well as the focus on Supply Chain Management being part of companies' strategies. The critical external (success) factor is the economy/labour market: Logistics and transport industry are pro-cyclical sectors of the economy and therefore the demand for graduates of the programme is dependent of the general economic background.

## 6. Monitoring of results – project indicators

Regular and systematic monitoring provides information to the project management for corrective action and justification accurately timed. Monitoring of the work progress and the project results is very closely linked to the definition of indicators and measurement of their achievement.

The types of monitoring/indicators used by project managers and project responsible parties differ in case of different projects and can be taken from the table below for each group of Best Practice examples.

The aim of the project monitoring is to manage the projects effectively and to the best advantage of the target groups and to find out if and how objectives are being met. In some cased it is important to understand the situation before the project was initiated in order to have a point of comparison and to be able to monitor the changes that occur on the occasion of the project.

Usually day-by-day project monitoring is conducted by the project responsible or project implementing parties themselves (internal monitoring). European projects financed within EU-programmes have to be monitored and controlled by additional auditors (external monitoring).

In case of projects bases on a partnership of several partners implementing the project together, discussions and periodical joint meetings take place. Some of the best practices are monitored by a Board of Directors.

As most of the projects are financed and/or initiated by public institutions, public authorities are also interested in project progress and results. The elaboration of detailed project plans as well as periodical reports is necessary.

In case of training courses/programmes participants are asked to give their feedback in order to evalu-ate the lecturers' performance and the contents offered. Of importance is also the evaluation by an external peer review as well as the satisfaction of participants and participating companies financing their staff's training. The Number of applications but also the number of degrees/certificates and edu-cation dropout plays a big role when evaluating the performance of a training offer.

Type of Best Practice	Monitoring/Indicators
Alternative, innovative training solutions and spe- cific logistics training offers especially for working peo- ple / logistic SMEs	<ul> <li>Use-of-potential-analysis</li> <li>Comparison of processes before and after the project, e.g.: Number of errors Average of working hours per day Customer satisfaction Satisfaction of members of staff</li> <li>Number of cooperation and interchange between SMEs, Universities and public institutions</li> <li>Number of trainings based on individual and common demand of the SMEs</li> <li>Number of follow-up projects</li> <li>Number of companies willing to participate</li> <li>Number of education dropout</li> <li>Number of training places</li> <li>Constant feedback from participants and managers of partner companies</li> <li>Number of companies reached</li> <li>Project plans for the financial monitoring of public (funding) authorities</li> </ul>
Electronic logistics knowl- edge/learning platforms	<ul> <li>Statistic of access</li> <li>Number of registered users</li> <li>Regular meetings and discussions</li> <li>Project plans</li> <li>Constant monitoring by the Board of Directors</li> <li>Regular reports for certain authorities</li> <li>Support from sector companies in development and promotion</li> </ul>
Logistic educational offers of Universities and Univer- sities of Applied Sciences	<ul> <li>Number of degrees/certificates</li> <li>Demand (number of applications) for the programmes</li> <li>Top rating in diverse rankings</li> <li>Quality management system on the basis of a detailed process description</li> <li>Evaluation of the lecturers' performance by the participants (per course)</li> <li>Evaluation of the participants groups' performance by the lecturers</li> <li>Evaluation of the programme by an external peer review</li> <li>(Permanent) feedback of companies</li> <li>External examinations (for reaccreditation) of the programmes</li> <li>Demand and acceptance analysis concerning the performance of the graduates in the working environment</li> <li>Analysis of the graduates' satisfaction with their education</li> <li>Feedback-talks between participants and lecturers</li> <li>Examination boards</li> </ul>

The following concrete results have been achieved by the Best Practice examples:

Best Practice	Results achieved
Automotive Academy Styria AAS	Companies can support education and training of their employees and workers and benefit from the knowledge offered within the customised, high quality trainings. Latest Research & Development news get spread among companies as AAS also offers trend moni- toring and surveys of demand.
	The independent Automotive Academy Styria certificate - based on international criteria – enables course participants to prove their qualifications.
	AAS offers about 60 training courses and programmes per year reaching 85 % of partner companies of the ACstyria Autocluster.
Update Logistics	The urgent need of companies for qualified staff in the fields of logistics could be satisfied.
	Also very small, highly specialised companies could be motivated to offer training places and it became possible to raise the number of training places in the fields of logistics.
INeS Danube – Inland Navigation eLearning System for the Danube region	The result is a logistic e-learning platform providing a modern form of education in the fields of logistics on inland waterways in the Danube region. Learning content is prepared for the specific learn- ing levels of the users.
	Learning content is accessible for free in English, German, Roma- nian and/or Dutch language.
Logistics Management at the DIU Dresden International University	The programme enables participants to achieve in-depth knowledge and understanding of advanced logistics, operations, manufacturing, distribution and supply chain management issues, concepts, tools and applications.
	The programme is accredited by the European Logistics Association ELA and graduates can obtain the Europe-wide accepted ELA cer- tificate.

Best Practice	Results achieved
Skills for Logistics: Stairway and Stairway Interactive	The Stairway is a web-based and hard copy sector specific compe- tency framework for the logistics sector with 470 competences cov- ering 34 different logistic job roles. It is available free of charge. The Stairway Interactive is an online skills development tool. It sup- ports personnel recruitment, training and development and enables companies to measure performance improvement. Working to- gether employers and employees can identify skills gaps, carry out training needs analyses and can get links to internal and external learning resources.
INNVALL – Innovation Value Added Logistics Limburg	As a result of the project a lot of knowledge and expertise for par- ticipating SMEs is gained in the fields of logistics, supporting SMEs to innovate their logistics activities and enabling them to add a value to their supply chains. This knowledge is not only available for the participating SMEs, but - due to follow up projects and dissemina- tion activities – also for all other interested companies and parties.
Strengthening of Knowledge Man- agement Practice in logistic SMEs	<ul> <li>The main results of the project are:</li> <li>Good Practice examples in the fields of knowledge management especially for logistic SMEs and - based on this - industry specific reference models, which have been elaborated in order to transfer solutions.</li> <li>Approaches for company-wide knowledge management and improved transferability to specific situations of individual SMEs.</li> <li>Awareness raising of the importance of knowledge management within logistic SMEs.</li> </ul>
LOGT – Logistics and Transport Management	Specific Bachelor (part-time and full-time) and Master (part-time) study programmes, which were nominated as the best Austrian Logistic programmes in the fields of Universities of Applied Sciences by the "Industriemagazin" ("industry magazine") having interrogated 900 human relations and 5.000 general managers.
Danube Professional Logistics & Supply Chain Management	Offer of a bilingual university logistics programme focusing on fur- ther education and targeting professionals with multiple years of job experience.
ELAbestLog	European electronic platform especially for logistic issues offering – among others - a logistic educational directory and information on best practice cases.

### 8. Lessons learnt

The lessons learnt are tied to project implementing/organising parties and can be summarised with the following phrases:

- Permanent evaluation and corresponding adjustment of the trainings' content is essential.
- The willingness to cooperate does not mean that you already cooperate!
- Knowledge Management is of big importance to strengthen competitiveness of SMEs in a sustainable way.
- Relating to Knowledge Management it is important to focus first on individuals and not on the organization.
- Implementing innovative tools it is important to take care of the business culture of the enterprise.
- Standardised solutions should not be transferred without further reflection, but adapted according to specific needs of a company.
- In case of offered training courses the critical success factor is the economy/labour market.
- Logistics and transport industry are pro-cyclical sectors of the economy.
- Stakeholders and participants need to be constantly reminded of the advantages of the training.
- Financial support always needs to be looked for creatively.
- Marketing is essential.
- Politicians need success stories of the project as often as possible.
- Cooperating companies first have to trust each other.
- Regular supervision to avoid dissatisfaction of the partners and the trainees is essential.
- Focus on administrative issues like the project management is one basis for success.

## 9. Stakeholders of presented Best Practice initiatives (Public's role)

The public sector - Regional Governments, National/Federal Ministries, Federal Institutes, State Universities, Universities of Applied Sciences, European Institutes etc. – is/was involved in almost every Best Practice example undertaking mainly the following tasks (importance in this order):

- Financing of the project especially by giving initial funding for pilots,
- Initiating the project in the frame of special support programmes,
- Giving administrative support,
- Undertaking dissemination of results and marketing activities.

Project coordinators /bodies responsible for the project are originated in both - the public and the private – sectors. Private project coordinators are in 3 cases employer-led organisations, in one case a European umbrella organisation of non public national members. Nevertheless in some cases public coordinators are legally organised as private companies being subsidiaries of the public sector.

In most cases public bodies give only financial support and thus make the project possible. Public bodies have the aim to invest in the future of their region.

Supporting companies have donated resources in terms of time and employees in the phase of development and implementation in most of the projects. They communicate their specific needs regarding to project contents and are prepared to test prototypes and give relevant feedback. 1. Best practices overview

## **1.1 Best practices analyzed in the report.**

No.	Title of the practice	Company
1	AGENDA 2017: "Competition on the Shelf, Not on the Boad"	Mars Deutschland
2	Peo Kyoto Projest	Indian
3	Gelenice Industrial Park (GIP)	Golenics Municipality
4	Logistics Centre in GVZ Lübeck	GVZ Libeck
5	Supply Chain Optimization In FMCG through implementation of procedure and standards of quality assessments of BUR pallets	Makus Cash & Carry and Anchan
6	Aviation Valley	Aviation Cluster in Rosanov
7.	Logistic Platforming project in the Italian PMCG industry	Ber 2009
8.	Cooperation of the companies in FAYMADA group	Pannada Transpost
9.	Logistics Centre in Frankfint on Main	Infrasery Logistics GmhH
10.	Logistics in Wallonia	Logistics in Wallonia Cluster
11_	Modal shift of long distance freight read transport in Luxembourg	Larry Rail
12.	FloraHolland — the largest flower auction in the world	PloraHolland
13.	Zeeland Seaports - the continental gateway	Zeeland Sequents

Table 1. List of the selected best practices. Source: own study Institute of Logistics and Warehousing

## **1.2** Precise theme issue tackled by the practices

All of the mentioned projects concentrate on developing of the logistics processes, especially improving logistics chains, information flow between market players. Some of them, want to attract new investors to the region which has a growth potential and perfect logistics localization (intersection of the transportation corridors etc.). The main aims of the practices are:

- Reduction of the greenhouse gases generated by transportation,
- Development of the logistics infrastructure by using authority and EU funds,
- Elimination the technical and organizational problems which appear during the transport process organization,
- Reduction of logistics costs as well as improving the logistics operations and level of customer service,
- Stimulation of the companies to develop innovative projects and attracting potential logistics investors,
- Reduction of road congestion,
- Efficient utilization of the resources (IT, people, logistics),
- Stimulate cooperation in business processes organisation.

## 1.3 Location of the practices

The initiatives are located in the whole Europe. Detailed figure with marked localizations of the practices, as well as the list with marked names of the best practices and locations is presented below.



Figure 1. Localisations of the best practices. Source: own study Institute of Logistics and Warehousing.

No.	Company	City	Country
1.	Mars Deutschland	Verden	Generaty
2	Inditez	Arteino (A Comía)	Spain
3.	Geleniow Manicipality	Goleniow	Poland
4.	GVZ Liberk	Libeck	Generativy
5.	Makes Cash & Carry and Auchan	Poznan	Poland
6.	Aviation Cluster in Russow	Rzesawa	Poland
7.	Eer 2009	Milm	Italy
8.	Parmada Transport	Toran	Polani
9.	Infraserv Logistics GashH	Prankfart on Main	Generatory
10.	Logistics in Wallania Cluster	Wallonia	Belgium
11.	Lony Rail	Bettenharg	Luxenbourg
12	FleaHeland	Aasmeer, Naaktwijk, Einjsburg, Venlo, Eleiswijk,	The Netherlands
13.	Zeekard Sexparts	Vlissingen and Termensen	The Netherlands

Table 2. List of the best practices with their localisations. Source: own study Institute of Logistics and Warehousing

## 1.4 Bodies involved in best practices

Depending on the project, different bodies was involved. Almost in each case, manufacture or trade companies were involved These partners, usually created a supply or distribution chain with the major body, who was responsible for the whole best practice, and was a main beneficiary of the project. Very often research centers, specialized colleges and universities were also involved in the initiative, by using experience and knowledge to create a more reliable, comprehensive and effective solution. The major role of the European Commission was to financially subsidize and develop a new project and initiatives. Another bodies involved in the practices were logistics and transport operators, shipping corporations, public infrastructure managers as well as town halls and governments. A number of the sites have been built on the basis of Public Private Partnership.



Matrix of all bodies involved in selected best practices is presented on the figure below.

Figure 2. List of the bodies involved in the selected projects. Source: own study Institute of Logistics and Warehousing

## 1.5 Financial issues - budget of the best practices

In each case, source of the funds was different. In some cases, like for example project "Mars: Agenda 2017", the entire budget came from the private sources. On the other hand, development of the "Aviation Cluster in Rzeszow" or the 'Rail motorways' in Luxembourg and France are co-financed two sources of private and public. We have got also practice like "Logistic Platforming project", which is whole financed from the members fees. Funds are usually used to buy a new logistics equipment, train a personnel or develop a IT solution in order to cope with organizational bottlenecks and problems with data exchanging between cooperated companies. Basically, all funds sources can be divided in two group: money which come from the public funds, like European Structural Funds, budget of the Municipalities, European Regional Development Fund (ERDF) or Government budget, and funds which came from the private sources of the companies. Almost in each case, projects are co-financed by private and public sources.

All sources of funds are presented below:



Figure 3. Sources of financing the best practice projects. Source: own study Institute of Logistics and Warehousing

## 1.6 Legal framework of the practices

Some of the practices are based on an international agreement linked for example to the United Nations Framework Convention on Climate Change. Some of the projects, like for example "Industrial Park in Goleniow" is managed by Municipality of Goleniow and all activities are conducted under regulations of Polish Self-government Law.

Very unusual is example of "Logistics Centre in Lübeck". The management board of the logistics centre consciously decided not to adopt the formula of a private company in order to have better access to funds, particularly those available from the EU. The logistics centre does not conduct any operating activity and does not have any income. The activity of the management board of the association is financed exclusively from membership fees.

"Makro Cash and Carry Polska S.A". and "Auchan Polska Sp. z o.o" did not sign any agreement either. Some of the companies, like "Infraserv Logistics", set up a subsidiary company, in order to implement the project resolutions. Although, the most of the practices are based on the agreement between involved bodies. Such kind a situation we have in case of ERC Milan, Farmada, Mars Deutschland and Logistics in Wallonia. Agreement ensures security, that secret data belonging to the enterprises will be used only to realization on the project goals.

In the case of 'Rail Motorways' between Luxembourg and France a company has been created to operate the site. All founders (both public and private) are now stakeholders of the company.

## 2.1 Public role in analysed best practices

Public role in analysed best practices Different initiatives have different public role. The major public role was to:

- Promote solution which save the petrol, like for example using bio-diesel or zero emissions electric vehicles in order to reduce greenhouse gases generated by transportation,
- Strengthen cooperation between market players, in particular collaboration between logistics service providers and trade and production companies in area of transportation and warehousing,
- Improve the quality of pallets using in supply and distribution chains, by creating and implementing procedures and standards of quality assessments of EUR pallets,
- Support rationalization of specific transport processes and logistics actions that lead to the improvement of SMEs competitiveness and environment protection by creating an European logistics coordinator network using specific IT tools,
- Identify the potential logistics investors, and stimulate them to develop innovative projects which for they can get financing by the Government, Municipality or European Structural funds.

## 2.1 Which are the public institutions involved in the best practice?

Major public institutions involved in analyzed best practices are listed in the table below.

No.	Name of the public institution
1.	Spanish government
2	European Cammission
3.	University of Vigo
4.	Marshall Office of Zazhodnicpozozskie Voivodship
5.	Polish Agency of Pourigo Investments
6.	The City of Libeck
7.	Liberk University
8.	ECR Poland
9.	University of Zilina
10.	Rassnov University of Technology
11.	Larow University of Technology
12	Raeszowska Regional Development Agency
13.	Mielecka Regianal Development Agency
14.	Institute of Logistics and Warehousing (ILLM)
15.	The International Institute for Parility Management
16.	The Walloon Report and Poneign Investment Agency (AWBX)
17.	National Rail Company in Prance (SNCP)

 Table 3. List of the public institutions
 involved in the best practices

Source: own study Institute of Logistics and Warehousing

## 2.2 Why do the involved bodies cooperated?

Involved bodies cooperate, to achieve common interest, which is:

- To reduce 20% of the greenhouse gases generated by transportation,
- To attract new investors in the logistics sector,
- To increase a chance to acquire financial resources for the development of logistics infrastructure.
- To eliminate problems which appear during using of the wood pallets type EUR, and create a uniform criteria of the pallets assessments.
- To improve logistics operations and level of customer service,
- To reduce distribution costs,
- To create a south-eastern Polish aviation production center in the region of Central and Eastern Europe and popularize, promote aviation among the general public,
- Transfer the knowledge between involved bodies,
- To create IT tool which helps to planning transport in the enterprises, and thanks to it reduce the total transport costs in the enterprises,
- To decrease the road traffic congestion,
- To identify potential logistics investors and encourage them to activity,
- To fulfill the agenda of the Transport White Paper in order to promote intermodal transport.

## 2.3 How do they cooperate?

Bodies who cooperate in a common initiatives, collaborate in a different ways, depends on the project.

INDITEX, in conjunction with the University of Vigo, is designing an ecological energy management model for retail outlets. Lighting equipment will be changed to equipment that offers high efficiency and low energy consumption. Thanks to collaboration with science, the solution will be much more effective.

In case of Goleniow Industry Park, companies involved in the practice collaborate with Municipality in joined development of the area of Industrial Park and its functions.

Very interesting way of collaboration implemented The International Institute for Facility Management (i2fm) and Infraserv Höchst, who operates Industriepark Höchst in Frankfurt. They have created a event series, with seminars, conferences and key events. That provided a forum for discussion among logistics decision-makers and professionals at manufacturing companies.

On the other hand, Mars Deutschland was carried out in the form of workshops, during which the emergence of project participants together a solution. The workshop, which conducted brainstorming is more effective than working independently, and give a possibility to develop interesting solutions.
In conclusions, common dialogue between bodies, cooperation between market bodies and scientists, organizing seminars and conferences as well as workshops with brainstorming give a chance, to find a effective solutions, better than solutions created without cooperation.

All types of cooperation between bodies involved in the practices are presented on the chart below.



Figure 4. Types of cooperation between involved bodies. Source: own study Institute of Logistics and Warehousing.

# 2.4 Public-private cooperation in analyzed best practices .

Almost in each case, initiative involved public-private cooperation. Typically State or European Union provide funds. That cooperation basically is based on transferring the knowledge and exchanging the experiences between the scientists or public associations and trade or manufacturing companies, which helps to achieve synergetic effect. A proper example is Inditex project, where scientists from the University of Vigo helped employees from Inditex enterprise to design an ecological energy management model for retail outlets.

In some cases, like for example in case of Goleniow Industrial Park, public body which is Municipality participate in common initiative by offering land for the new investment. Thanks to it unemployment rate in the region decrease, incomes from the taxes increase, and the whole district has a chance for to develop.

Sometimes, common solution and tools are created and tested, to solve some wide problem which appeared in logistics branch. Good example is collaboration between Makro and Auchan and ERC Poland, which is non private association. Involved private and public body transferred the knowledge and experiences, in order to achieve an synergetic effect. Thanks to it, a huge number of the EUR wood pallets which are not in a good shape, are removed from the market and recycled. That effect a better quality of transportation in the whole supply and distribution chain, as well as lower total costs of shipment, claims and warehousing.

Lorry Rail company has been created by companies from both sectors as the private companies have held the necessary technological know-how and on the other hand it has been crucial for the project to have a support from the local governments as the main goals were strictly political.

# 2.5 Implementation steps

Depending on the project, implementation step in each practice can be completely different, but, always they have some common phases which is:

- Discussion and creating a common model of collaboration between involved bodies,
- Pilot Phase preliminary implementation,
- Training of the employees,
- Creating of the project documentation and implementation of the new procedures,
- Core implementation,
- Measuring of the results,
- Corrective actions and optimization.

# 2.6 Timescale of the best practices

Timescales of the all described projects were presented in the table below.

No.	Title of the best practices	Start - up
L	AGENDA 2017: "Competition on the Shelf, Not on the Road"	nat kaosa
2	Pro Kyolo Project	2007
3	Coleniow Industrial Park (GIP)	2003
4	Logistics Centre in GVZ Lübeck	2001
5	Supply Chain Optimization In PMCG through implementation of procedure and standards of quality assessments of BUR pallets	2005
6	Aviation Valley	April 2003
7.	Logistic Platforming project in the Italian PMCCG industry	Petersary 2009
8.	Cooperation of the companies in FARMADA group	October 2008
9.	Logistics Centre in Frankfurt on Main	1992
10	Logistics in Wallonia	July 2006
11	Kal Mohaways LX-FRA	June 2004
12.	PiorzHolland - the largest flower auction in the world	2006
13.	Zeeland Sesports - the continental gateway	1998

Table 4. Timescale of the best practice initiative/project. Source: own study Institute of Logistics and Warehousing

# 3. Problems, critical success factors, lessons learned

# 3.1 The most common difficulties in implementation of the project.

Almost each project did not encounter relevant difficulties, and the goals of the project have not been changed. Despite, some inconveniences in case of Inditex project appear. That project encounter two main difficulties:

- there was no commercial availability of biofuels in Spain,
- skepticism of personnel and fear of technology change (vehicles running on biofuels and electrical vehicles instead of engines powered by classical oil).

A major problem during the Mars Deutschland project was to convince the partners to the equity action. Difficulties have also occurred during execution. It was hard to discipline employees and partners to act in accordance with the project scheme and schedule. The major problem in majority of cases, like for example in case of Auchan & Makro project, was to encourage companies to cooperation. Each of the bodies defended their interests at arguing with the idea of cooperation and exchanging of information. The other problem was to convince the companies to share their private data, which was key to make the analysis. Thanks to common dialogue, project meeting and workshops, all of these difficulties have been solved, and the goals of the practice have not been changed during the project.

Many companies were unconvinced about the need for the projects. Problems have a significant impact on the achievement of its objectives. It is very important to understand the idea of the project in order to achieve these objectives. Each partner, which current participation in the project must understand and agree with the goals of the project.

To solve the problems and difficulties that have arisen during the implementation of the project, partner have arranged common meetings and workshops. Regular contact with project partners was a key success factor of the project, and helped to solve the emerging problems which appears during the work on the project

## **3.2 Success factors in implementation of projects.**

The main three critical success factors of the practices is:

- Perfect logistics localization of the new created industrial parks with access to all modes of transport and complete supply of all logistics services in one location,
- Concept of formula of a non commercial law company in case of Logistics Centre in GVZ Lübeck, in order to have better access to funds, particularly those available from the EU,

- Common interests and needs of partners (companies) that participate in the project. Each member of the project is actively involved in it and is willing to carry out all tasks that are assigned to him.
- Engaged and supportive partners and common, business and political goals.

# 3.3 Lessons learned

The major lesson learned are presented below:

- It is a key to involve state and public institution in development transport and logistics,
- To achieve excellent results, all stakeholders should cooperate and exchange their knowledge. Good geographical location is not enough to achieve success and to change ordinary region to the region which is a high competitive in the logistics. Good rail, road and water infrastructure is also crucial,
- Full logistics service for the customers ensure high level of the customer's satisfaction and thanks to it better collaboration and high profits from sales,
- Initiative must be neutral from political point of view and economically proven for the business,
- When staff are fully involved in project, success is more easily won,
- Using of the funds available from the EU is a key point to develop logistics on the high level.

Cooperation of public and non public institutions ensure better project results.

# 4. Concrete results of analyzed best practices

## 4.1 Indicators

The crucial projects indicators are presented below:

- The level of unemployment in the region of Goleniowski Industrial Park was reduced to 0 %,
- 305 ha area of Industrial Zone was sold for companies, which will develop logistics investments,
- In the year 2009, 500.000 of the pallets which do not pass the quality control was removed from the Polish market and transfer to the companies which are responsible for the utilization,
- The test stage of the KASSETTS project shows, that thanks to a full implementation of the project the total transport costs can be decreased (ca. 20%), number of kilometers can be decreased (almost 30 %), and the number of individual transports can be reduced (37%), as well as the shorter time of the order fulfillment can be achieved,
- Wallonia region is progressing in terms of logistic attractiveness in Europe; it has recently moved up from 7th to 1st place in the classification made by Cushman & Wakefield for the location of European Distribution Centers,
- The north-south axis of France has been partially decongested.

# 4.2 Monitoring

The work progress is monitored, depending on the practice by:

- The indicator of new projects per year (projects in which Logistic in Wallonia is involved),
- Number of new jobs in logistics industry in area of Wallonia Cluster,
- Number of the associations and companies who participate in the project, cooperate, share and exchange knowledge to each other (Infraserv Logistics project),
- Number of brokers, carriers and production as well as trade companies, which are using the KASSETTS platform to planning the transportation,
- KPI's indicators, which help to monitor the pilot performance (ECR Milan project),
- Number of transport delays, caused by bad quality pallets (Makro & Auchan project),

- Number of claims, which the reason was inconsistent of procedure and standards of quality assessments of EUR pallets (Makro & Auchan project),
- The financial resources for the development of logistics infrastructure which was acquired (Logistics Centre in GVZ Lübeck project),
- The number of the new logistics infrastructure which was created thanks to the funds from European Union programmes (Logistics Centre in GVZ Lübeck project),
- The measure of the greenhouse gases emission as well as CO, CO2, sulphur and nitrous oxides emission by the trucks which belong to the Inditex company,
- Size of the sold area and number of companies settled in Goleniowski Industrial Park.

# 4.3 Main outcomes of the analyzed best practicese for the final beneficiaries.

List of the main outcomes of the project is presented below:

- CO2 emissions was reduced by 850 tonnes per year due to the use of biofuels (accounting for 80% of the reduction), and to the use of renewable energy sources and tree planting (Inditex project),
- Emissions of CO, sulphur and nitrous oxides are also reduced by switching trucks from diesel to biofuels (Inditex project),
- In the race for foreign investments, Wallonia attracted 67 new projects in 2009, creating 2,038 new jobs (Logistics in Wallonia project),
- Vessel and train itineraries was harmonized (Logistics Centre in Lübeck),
- Elimination transportation delays, and faster flow in the supply chain goods transported on the EUR pallets (Makro & Auchan project),
- Elimination of the claims, which the reason were not clear criteria of the quality assessments of EUR pallets (Makro & Auchan project),
- Elimination claim costs, reverse transportation costs and costs of pallets restock (Makro & Auchan project),
- Reduction costs of transportation by the companies involved in the initiative, without reducing customer service level (Farmada project),
- Reduction the number of used trucks which contributes to reduction of the road traffic congestion (Farmada project),
- Well educated and aware of the new logistics strategy employees (Inditex project).

# 5.1 Contact person who can deliver additional information concerning practice

No. of practice	Contact person	phone	e-mail
1.	Romald Heavelmans	+49 42 31 94 46 38	manald heavy-hours @ea effen con
2	Antonio Álvares Sánchez	+34 981 185 400	antonicus@intities.com
3.	Kuystof Ziako	+48 91 46 98 210	humistra@goleniow.pl
4.	Uta Stief	+49 451 7900 145	nta stieff@lbg-online.de
5.	Malgonata Pielanska	-	m piekarska@auchan.pl
6.	Aminej Kybka	+48 17 850 19 35	and seized ball de la contra el
7.	Andrea Alcai	+39 06 455 41 530	Andrea alori Quiscontilah com
<b>B</b> .	Szymen Gardzielewski	+48 663 731 889	Segmen gentzielenski@nenes.pl
9.	Constanze Barkow	+49 69 305 7183	constance buchup fainfin services
10.	Bernard Piette	+32 4 387 88 76	hai@logisticsingefluxia.he
11.	Daniel Lebertran	+352 24 87 68.23	David laborton (Inny-call com
12	Evelya Heyligers	+31 2973 980 50	BurkynHepigers@floraholland.nl
	Amo Dirkawager	+31 115 647 457	Armo Dirkawager@zeelandsexports.com

Table 5. List of the contact persons, who can deliver additional information concerning practice. Source: own study Institute of Logistics and Warehousing

# 5.2 Websites, documents, presentations

Table below contain web-sides, which can provide some additional information about each best practice.

No. of practice	www.	
1.	www.mars.at/global/index.aspx	
2	www.inditex.es/en/composite_negonsibility/environmental/strategic_plan	
3.	www.poleninw.pl	
4.	www.prz-luebeck.de/english/	
5.	www.ecr-all.org/polantl/	
6.	www.dolinalostnicza.pl/pl/	
7.	www.indiand-ees.it	
8.	www.nencs.pl/en/	
9.	www.infiniteseteen	
10_	www.kgisticsinovillonia.he/	
11.	<u>www.kazy-wil.egus.</u>	
12	www.finzhellani.nl	
13.	www.awdandeepenix.com	

Table 6. List of the web-sides, which can provide additional information about selected best practices

# Logistics Supply Business Networking Best Practice Guide 1. Introduction

Component 3 work package targets the identification, analysis, transfer and exchange of policy best practices for SMEs logistics, with specific target on clustering, networking and cooperation in logistics. C3 goal is to improve policy making with 2 complementary viewpoints, as both can be a concrete input for policy makers to innovate and improve their policies: 1) transfer of best logistics policies for SMEs; 2) transfer of best cases of SMEs cooperation in logistics.

These 2 views are targeted to the following policy areas:

- 1. strengthening the logistics supply and the logistics industry,
- 2. improving the logistics demand in the production systems,
- 3. strengthening the logistics training.

The main activities in Work Package 3 of the CASTLE project are:

- 3.1 Best practices consolidation in the partners regions,
- 3.2 Logistics Competence Centre (LoCC) model transfer activities through counselling to EU regions and site visits,
- 3.3 EU Knowledge transfer for SMEs logistics policy development (3 fields: logistics demand, supply, logistics training for SMEs),
- 3.4 CASTLE logistics award on best logistics policies for SMEs,
- 3.5 Regional Knowledge transfer train the policy makers & fit best practices to regional contexts,
- 3.6 best practices joint EU survey & site visits,
- 3.7 Policy guidelines definition.

A methodological document which was provided by ILIM refers to detailed description of work in action 3.6. Best practices joint EU survey & site visits.

CASTLE methodological document for the best practice consolidation explains methodology of work in activity 3.6. In activity 3.6 the same methodology will be used for analyzing best practices collected during joint EU survey outside partnership regions (indicator of result in this activity is 30 good practices identified and analyzed) as in activity 3.1.

#### Best practice consolidation should:

- 1. Help policy makers to improve their capacity of building logistics policies, support regional economic competitiveness and logistics environmental sustainability (win-win policies).
- 2. Create a logistics culture, through the transfer and the exchange of best practices; create new knowledge and skills for logistics improvement.

The methodological document of activity 3.6 plans the consolidation of best practices in regions outside partnership by means of 3 joint European surveys and 9 on site visits. All together the 30 best in 3 thematic areas should be identified by defining:

- 1. Implementation steps
- 2. Critical success factors
- 3. Concrete results
- 4. Lessons learnt
- 5. Public's role

#### Rationale

The C3 tackles the following issues:

- Help policy makers to improve their capacity of building logistics policies, support regional economic competitiveness & logistics environmental sustainbility (win-win policies).
- 2. Create a logistics culture, through the transfer & exchange of best practices; create new knowledge & skills for logistics improvement.
- 3. Networking public & private bodies in the field of logistics and business competitiveness as basis for policy making (LoCC concept).

The final C3 goal is the development of EU joint policy guidelines which stem from a EU and regional debate on future logistics policies for SMEs, on the base of: capitalisation of best practices, 3 EU surveys with site visits, LoCC model transfers, a new regional policy tool development (C4) & specific residential training sessions in the CASTLE regions.

In fact the 3 EU surveys and the relevant site visits do not only bring best practices to the CASTLE partners and to their regions but also share BPs, and in particular those of the CASTLE partners which are consolidated in activity 3.1, to new regions (as reported in the application form in section 3.2.2.), which are influenced in policy making for SMEs.

#### Responsibilities

Act. 3.6 (Best practices joint EU survey) is coordinated by ILIM & the 3 EU BPs surveys are coordinated by:

ILIM - on SMEs logistics demand,

PBN - on SMEs logistics supply,

EAK - on SMEs logistics training.

Best practice template.

The template for best practices description contains the main points mentioned above and the detailed indications what each point should consist.

According to the CASTLE methodological document for best practice consolidation Pannon Business Network carried out an analysis of the best practices without the partner regions, on the bases of the relevant CASTLE project theme (SMEs logistics supply) and of a joint description format and made 3 site visits at the selected best practices.

	Title of the best practice
1/	Precise theme issue tackled by the practice: report in few lines the best practice description and identify in bullets the
1.2.	main 3 focuses.
13	Location of the practice
	Bodies involved in the project/initiative (short description of the bodies, identification of the eventual marke
1.4.	sector/industry of the project/initiative, short indication of the role of each body in the project/:
15	Financial issues - budget of the best practice project/initiative (also indicate if it includes public and/or private
1.0.	financing), final beneficiaries of the best practice project/initiative:
16	Legal framework of the practice
	OOPERATIONAL ISSUES. PUBLICS ROLE
2.1.	
2.2.	
2.3.	Why did the involved bodies cooperate? (Description of the goals and of the common interests)
2.4.	How do they cooperate? (Description of the collaborative solution with special focus on its difference from a nor
	collaborative solution and on how it will reach the goals). Why is this solution better than a non collaborative
	solution?
2.5.	Does the initiative involved public-private cooperation? If yes, specify how.
3.2.	Timescale of the best practice initiative/project
4. P	ROBLEMS, CRITICAL SUCCESS FACTORS, LESSONS LEARNED
4.1.	Do/did the project encounter relevant difficulties? If yes, which ones? Have the goals of the project been changed
	during the project?
4.2.	during the project? How do/did these difficulties influence the achievement of the goals? Is/was it possible to face and resolve these
4.2.	
	How do/did these difficulties influence the achievement of the goals? Is/was it possible to face and resolve these
4.3.	How do/did these difficulties influence the achievement of the goals? Is/was it possible to face and resolve these difficulties? How?
4.3. 4.4.	How do/did these difficulties influence the achievement of the goals? Is/was it possible to face and resolve these difficulties? How? List the main 3 critical success factors of the project
4.3. 4.4. 5. C	How do/did these difficulties influence the achievement of the goals? Is/was it possible to face and resolve these difficulties? How? List the main 3 critical success factors of the project On the base of points 4.1. to 4.3. describe shortly lessons learned
4.3. 4.4. <b>5. C</b> 5.1	How do/did these difficulties influence the achievement of the goals? Is/was it possible to face and resolve these difficulties? How? List the main 3 critical success factors of the project On the base of points 4.1. to 4.3. describe shortly lessons learned
4.3. 4.4. <b>5. C</b> 5.1 5.2	How do/did these difficulties influence the achievement of the goals? Is/was it possible to face and resolve these difficulties? How? List the main 3 critical success factors of the project On the base of points 4.1. to 4.3. describe shortly lessons learned ONCRETE RESULTS OF THE PROJECT Indicators of the project How is the work progress monitored?
4.3. 4.4. <b>5. C</b> 5.1 5.2	How do/did these difficulties influence the achievement of the goals? Is/was it possible to face and resolve these difficulties? How? List the main 3 critical success factors of the project On the base of points 4.1. to 4.3. describe shortly lessons learned ONCRETE RESULTS OF THE PROJECT Indicators of the project How is the work progress monitored?
4.3. 4.4. 5. C 5.1 5.2 5.3	How do/did these difficulties influence the achievement of the goals? Is/was it possible to face and resolve these difficulties? How? List the main 3 critical success factors of the project On the base of points 4.1. to 4.3. describe shortly lessons learned <b>ONCRETE RESULTS OF THE PROJECT</b> Indicators of the project How is the work progress monitored? Describe the main outcomes of the project/initiative for the final beneficiaries. In case of deviations or of not achieved outcomes indicate why. 6. CONTACT INFORMATION
4.3. 4.4. 5. C 5.1 5.2 5.3	How do/did these difficulties influence the achievement of the goals? Is/was it possible to face and resolve these difficulties? How? List the main 3 critical success factors of the project On the base of points 4.1. to 4.3. describe shortly lessons learned <b>ONCRETE RESULTS OF THE PROJECT</b> Indicators of the project How is the work progress monitored? Describe the main outcomes of the project/initiative for the final beneficiaries. In case of deviations or of not achieved outcomes indicate why.

The process of the survey is based on the template and conceptual model for best practices consolidation (Methodological document) which was created by ILIM as component 3 leader. After this documents the responsible partners in activity 3.6 (ILIM, PBN, EAK) collected the interesting topics from the project partners on the base of policy targets, send hints about the sources of information.

In the second phase of the process began the desk work which contains the identification of 10 interesting BP's in logistic supply business networking. The first 10 suggestions were discussed with the component leader and two best practices were cancelled because of territorial aspect. KOMODA and B2B Loco projects are affected by ILIM's region. That was the reason why PBN changed the 10 BPs and suggested two other. Both new BPs (Delivery Consolidation for Downtown Area in Bristol and Support for the development of the logistics centres and services) were agreed by the component leader.

PBN supplied altogether 10 practices descriptions, as summarized in table below.

After the finalization of the 10 BPs PBN began to contact with the responsible persons of each BPs and to select the 3 BPs which will be visited for an interview.

The 3 selected BPs for site visits were the following:

- 1. Aviation Valley Association in June 2010,
- 2. Hungarian Logistic Action Plan in July 2010,
- 3. Logistic Development Plan of Main Road "8" in August 2010.

REGIONS WHERE BEST PRACTICES ARE IDENTIFIED		Project themes SMEs logistics supply
	East Hungarian Region	Logistic Cluster in Záhony Area
	Hungary	Association of the Hungarian Logistic Service Centres
	East Hungarian Region	Complex Economic Development Programme in Záhony area
	Hungary	Hungarian Logistic Action Plan 2009-2013
JS	West-Central Hungary	Logistic Development Plan of the "Main road 8"
Regions	Rzeszowsko-Tarnobrzeski /Poland	Aviation Valley Association
Re	Bristol/United Kingdom	Delivery Consolidation for Downtown Area in Bristol
	Hungary	Development of logistic centres and services
	UK (NUTS 1) Yorkshire and the Humber (NUTS 2) Wakefield District (NUTS 3)	Labor logistics planning
	Regensburg, Germany	RegLog® - City Logistic in Regensburg

The interviews provided a good opportunity to get to know deeper the current best practice thus we can inform the partners as well as the target group of the CASTLE project about the actual situation on the base of the personal impacts.

In the 3rd step of the "Best practices joint EU survey & site visits" the information was gathered with use of best practice template through desk research and study visits. The best practice consolidation should:

- help policy makers to improve their capacity of building logistics policies,
- support regional economic competitiveness and logistics environmental sustainability,
- create a logistics culture, through the transfer and the exchange of best practices,
- create new knowledge and skills for logistics improvement.

The templates are consolidated and summarized in the current document (BPs guide) with the following common structure:

- 1. Introduction
- 2. Technical and organizational implementation of BPs
- 3. Financial and legal framework of identified BPs
- 4. Critical success factors
- 5. Monitoring of results
- 6. Concrete results achieved
- 7. Lessons learnt
- 8. Stakeholders of presented BP initiatives (Public's role)

# 2. Selected best practises

The description of the 20 best practises with underlined public roles can be found below.

# 2.1 Logistic Cluster in Záhony Area

Region:	East Hungarian Region
Project theme:	Strengthening the logistics supply & the logistics industry
Publics role:	establishment, professional support

The cross border logistic cluster is the main tool of the common lobby for the logistic businesses in the affected area. The aim of the cluster is to become Záhony a competitive continental hub and at the same time to faster the acjivement of the regional aims such as

- Economic and social development of the Business Area of Záhony and its area,
- Enhancing the R+D, scientific and innovation activities,
- Promotion of the labor market cooperations,
- Launching of the labor market trainings.

# 2.2 Assotiation of Hungarian Logistic Service Centres

Region:	Hungary
Project theme:	Strengthening the logistics supply & the logistics industry
Publics role:	professional support; R&D

In the course of formulating the directives of the transport policy the relations of the economic processes should be taken naturally into account and the long term impact exerted of them on the participants of the transportation. The logistic way of thinking, which rationalise the various economic activities, saving thereby costs has brought the centres ensuring the appearance of the logistic activities in concentrated form into life. In connection with this – keeping the augmentation of the share of the combined freight transport in view – the Ministry of Transport has adopted the preconception, which promote the building up of the nation-wide network for the logistics service centres. For the realisation of the efficient co-operation of the logistics service centres functioning in our country and for the co-ordination of the co-operative processes alongside the common interest the establishment of a professional interestrepresentation has become necessary, the formation of which rendered the business activity of the undertakings operated in the area of

the logistics service centres, as well as in their sphere of attraction, the flow of the information promoting the economic development, further the wide use of the combined freight transportation systems possible. The Necessity of the foundation of the MLSZKSZ was formulated from the side of the national network forming logistics centres to be found in the transport political concept and so the establishment of the Association was made on the 12. June 2002.

# 2.3 Complex Economic Development Programme in Záhony Area

Region:	East Hungarian Region
Project theme:	Strengthening the logistics supply & the logistics industry
Publics role:	initiative, financing

Experts in international goods forwarding say 80% or as much as 150% increase is expected in goods traffic at the railway frontier crossing points of Hungary and in Ágcsernyő (Slovakia) in common until 2020. The objective of the Záhony Complex Economic Development Program ending all in all at the end of 2013 is that the region relies on the existing foundations and so advances to this ambitious vision. There is definite need to develop an infrastructure environment that attracts and supports the settlement of the logistics industry, whereby our country could also benefit from the favourable alignment of European transport routes.

# 2.4 Hungarian Logistic Action Plan 2009-2013

Region:	Hungary
Project theme:	Strengthening the logistics supply & the logistics industry
Public role:	initiative, implementation, financing

The Hungarian State accepted the Logistic Action Plan in June 2009. The main aim of this document is that Hungary will become one of the most important logistic service centres in Central and Eastern European. The action plan contains 9 actions which are sector-specific and worked out till the financial support opportunities. A lot of elements of the Logistic Action Plan was implemented successful.

# 2.5 Logistic Development Plan of Main Road 8

Region:	the NUTSIV districts which are affected by the West-Central Hungary	Main road 8	
Project theme:	Strengthening the logistics supply & the logistics industry		
Publics role:	initiative, financing, support		

The main aim of the plan was to create a complex development plan which focuses on the development problems and opportunities of the "main road 8" area through the glasses of the regional development especially in logistic.

The main 3 parts of the work were the followings:

- Background analysis (statistic data collection and analysis; consultations; SWOT; etc.),
- Strategy programme,
- Operative programmes are detailed in sub-programmes and part programmes.

# 2.6 Aviation Valley Association

Region:	Rzeszowsko-Tarnobrzeski / Poland
Project theme:	Strengthening the logistics supply & the logistics industry
Publics role:	financial support, provide data

The Aviation Valley Association was started on April 11. 2003, as a not-for-profit organisation, and as a means of furthering the rapid development and growth of the aerospace industry in southeastern Poland. This strategic decision and formal organization of the Association was developed and implemented by a group of leading aeronautic producers, suppliers and businessmen.

The Aviation Valley Association was created in 2003 by a group of local entrepreneurs with the aim of making Podkarpackie, Poland, one of the leading aerospace regions in Europe. The principle tool for reaching this vision was to build a strong regional cluster allowing for better exploitation of regional potential. In this context, the Aviation Valley activities are aimed at supporting cluster development with the focus on enhanced communication mechanisms within the cluster as well as improved presentation to the outside world, most notably to potential investors

# 7. Delivery Consolidation for Downtown Area in Bristol

Region:	Bristol/United Kingdom
---------	------------------------

**Project theme:** Strengthening the logistics supply & the logistics industry

Publics role: initiative, implementation, monitoring

The Bristol Freight Quality Partnership (BFQP) was established in 2003 as a joint effort of the Bristol City Council, three other public agencies, and 17 private entities. The BFQP developed a strategic plan to reduce truck delivery trips to Broadmead, the core retail area including approximately 325 stores.

The BFQP established a freight consolidation center in an industrial park on the urban fringe, with good access to the local road network and approximately 25 minutes away from Broadmead.

#### Objectives:

- Produced with the Partnership a Commercial Vehicle Drivers Atlas for the Bristol urban area. The Atlas identifies advisory access routes to main freight destinations, showing current weight, height and width restrictions, and rest facilities.
- Produced, with the Partnership, annual Action Plans since the publication of the first Atlas in February 2003. The Action Plans aim to identify and resolve local problems; provide better facilities for drivers and rail freight operators, including identifying and safeguarding land.
- Participated in the national 'Clear Zone Trailblazers' initiative focusing on Bristol and Bath city centers, researching innovative ways of handling deliveries and reducing emissions. Sought, through the planning process the provision of an open-access road-rail interchange in the area.
- Identified opportunities for rail based freight distribution.

# 2.8 Support for the development of the logistics centres and services

Region:	Hungary
Project theme:	Strengthening the logistics supply & the logistics industry
Publics role:	support

The aim of the construction is fulfilling the requirements of the international flow of goods passing through Hungary with high value added services, especially by the development of intermodal (connecting different modes of transportation) logistic centres, which play an important role from the point of view of environment protection. Beside that, another aim is to achieve that the competitiveness national small and medium-sized enterprises improve by the development of regional logistic centres, above all by widening the range of complex logistical services offered by them and the improvement of the quality of the services.

# 2.9 Labour logistic planning

Region:	UK (NUTS1) Yorkshire and the Humber (NUTS2) Wakefield District (NUTS3)
Project theme:	Strengthening the logistics supply & the logistics industry
Publics role:	support, promotion

This is an initiative supporting businesses or groups of business with a system and software tools of planning staff resource scheduling.

The aim of the project is to provide an innovative business and technical support service, which can be used by manufacturers on business and industrial parks but also by public services.

The project has provided public and private sector organisations with the tools to organise production and service scheduling more easily. The logistics management tool has complemented Enterprise Resource Planning (ERP) protocols and procedures.

# 2.10 RegLog® - City Logistic in Regensburg

Region:	Wielkopolska
Project theme:	Strengthening the logistics supply & the logistics industry
Publics role:	support, public relations, integration

Project development and status

- 5-6 freight companies,
- 1 freight agent (flexible fleet) City: 1-2 trucks; Major clients: 2-3 trucks,
- Project support | moderation: FGR,
- Project consulting: BMW,
- Cooperate marketing: Logo; Truck inscription | advertising; Press | Publications.

RegLog® services

Service supply	Supply of customers at inner city (goods-concentrated)
Service freight collection	Collecting of goods from inner city
Service disposal	Collecting disposal material (paper, paperboard, cardboard, foil) during inner city delivery
Service major client supply	Supply of customers with problematic delivery (e.g. long waiting time)

# 3. Technical and organizational implementation of best practices

Processes of most projects' implementations include selection and involvement of companies, as one of the key factors for project success. In the theme "Strengthening the logistics supply & the logistics industry" the process always starts from analysis of the current situation and than selection and involvement of participants, followed by data and process analysis, both supplied by the companies. On the basis of analysis results, the way of cooperation between participants is chosen.

The last steps of most implementations are feedback actions, connected with corrections and changes of the best practice. This is the way to self-development of every action and the condition of long-lasting and successful projects.

Summarized steps of best practices indicated by the donors and divided by themes are gathered below.

In the theme "Strengthening the logistics supply & the logistics industry" according the descriptions of best practices, steps of implementation of the project on the supply part of the logistic industry should include:

- 1. Companies selection and involvement:
- dissemination of the idea,
- presentation to interested companies,
- selection of companies, recruitment.
- 2. Data collection and feasibility study:
- companies' processes matching,
- in-depth studies of companies' day-to-day flows,
- benefits forecast.
- 3. Selection of integration: direction (horizontal or / and vertical) and range (collaboration or commercial network, step of integration).
- 4. Association (consortium) agreement.
- 5. Project initiation, practice.
- 6. Feedback analysis, corrections.

A pilot project is possible, with the same steps, but on smaller scale.



# 4. Financial and legal framework of identified BP

From the financial aspect we can group the Best Practices to the following packages:

- 1. only public financing,
- 2. only private financing,
- 3. mixed financing (public and private).

In the 1st group only 2 best practices belong. We can realize that these best practices are one of the main projects of the owners and among the owners is the state. The supports stem from the states and the European Union and the support rate is 100 %.

The 2nd group is empty. We met lot of initiatives which was established by only private financing but these project use public resources if they can. You can find the detailed explanation in the 3rd group description.

The 3rd type of the financing method is the biggest group but we can set out that the most of the best practices financed by the private resources which are came from companies, membership fees or especially support of a significant company. Through the analysis of the best practices the financial map of the project was clear: all private financed cooperation, project try to use the EU support in order to complete and to facilitate their developments and initiatives.

Summarized the financial issues of the best practices the most important resources of the initiatives are the membership fee on the private side and the EU supports on the public side.

It is a very interesting part of the analysis if we would like to see the legal framework of the best practices. We can see it from two different points of view:

- 1. Official type of the organization,
- 2. The need of the initiatives.

The most common forms of framework are associations and consortiums, but some best practices require only gentlemen agreements between participants. Projects are developed as foundations, associations and private limited companies with public ownership.

60 % of the best practices have got local requirements at the establishment. First and foremost the locality, the historical origin of the local industry and the demand from the businesses were the reasons of the initiatives. In three cases of the projects we can set out that the public sector initiated to solve the local problems with cooperation.

In the less part of the best practices the reason of the projects were global aspects e.g. economic downturn, the strengthened importance of the traffic corridors, changes on the markets.

#### 5. Critical success factors

Donors have underlined some critical success factors, which have an inter-thematic character. The success of the programmes and cooperation on the point of view of the most part of the stakeholders lies in the quality of the partnership (PPP, company partnership, etc.). The orderly and stable financial background is unavoidable. Its miss injure the cooperation in many cases. Many partners mentioned the break off of the state resources which is contributed to wither of the aims. In the same time the stakeholders admitted that the money can't solve everything that is the reason why the professional management is needed which is able to launch and manage the cooperation.

#### 6. Monitoring of results

Donors have supplied mostly information about institution involved in results monitoring. All of the stakeholder underline the importance of the monitoring which is especially important for the measuring and follow up of the aims. In some cases the management organisation and in other cases an independent body functions this control generally in each semester or year.

#### 7. Concrete results achieved

The projects brought for the beneficiaries different results which are stems from the diversity and complexity of each project. But all projects have got a common flavour, namely to put the stakeholders in touch each others and thus provides synergistic advantages and external gains. The projects rationalized the operation in some cases and in other cases established an effective lobby sector which can increase the economic potentials of a common logistic. The cooperation could launch some expertise group which representatives the interest of the logistic better than previously.

#### 8. Lessons learnt

Donors have underlined that it is effective to maintain a professional-economic-civil cooperation if the partners know each others and organized common portfolios. You can find the right resources to these initiatives at the same time the successful cooperation, planning and implementation is not a financial question but a professional one.

# 9. Stakeholders of presented Best Practice initiatives (Public's role)

The public sector on different levels was involved in almost every best practice, according to size and topic of the project. Government institutions, government agencies, local and national authorities, universities and institutes were playing main or supporting role as one of the basis of the projects.

Most often financial support, especially on initial steps, was indicated. But other forms of support, including promoting, management, coordination, selection of participants, were common.

Detailed public sector involvement in individual themes includes the following points:

- defining, initiation, testing, financing and promotion of the best practices,
- providing necessary data,
- improvement of legal environment determining the conditions for performance of the project,
- support and providing administrative conditions for smooth implementation of projects,
- gathering of the data,
- support in partners selection,
- taking part in the BP's events,
- providing scientific support,
- management and coordination.

In some best practices, the public sector is not involved, in the others is one of the main beneficiaries.

## Conclusions

#### Logistic demand

All of the mentioned projects concentrated on developing of the logistics processes, especially improving logistics chains, information flow between market players. Some of them, want to attract new investors to the region which has a growth potential and perfect logistics localization (intersection of the transportation corridors etc.). The main aims of the practices was reduction of the greenhouse gases generated by transportation, development of the logistics infrastructure by using authority and EU funds, elimination the technical and organizational problems which appear during the transport process organization, reduction of logistics costs as well as improving the logistics operations and level of customer service, stimulation of the companies to develop innovative projects and attracting potential logistics investors. Different initiatives have different public role. The major public role was to promote solution, strengthen cooperation between market players, in particular collaboration between logistics service providers and trade and production companies in area of transportation and warehousing, improve the quality and support rationalization of specific transport processes and logistics actions that lead to the improvement of SMEs competitiveness and environment protection by creating an European logistics coordinator network using specific IT tools. Involved bodies cooperated, to achieve common interest, which was for example reducing 20% of the greenhouse gases generated by transportation, attracting new investors in the logistics sector or improving logistics operations and level of customer service and reducing distribution costs.

#### Logistic supply and Logistic training

The lack of logistics innovation is also due to the lack of adequate logistics training systems. Being aware of this, logistics training is one of the main factors in which all the CASTLE partner regions are interested and try to do efforts with the aim to support a better qualification of human resources within the logistics sector. Therefore the project CASTLE was also born to answer regional needs to improve SMEs logistics policies and especially logistics training and education for SMEs systems.

The Best Practice examples within the fields of logistics training range from logistics educational offers of specialised universities and universities of applied sciences addressing especially logistic professionals (e.g. cooperation of Dresden International University and University of Technology Dresden, University of Applied Sciences at the FH bfi Vienna, Danube University Krems) to practices with special support of SMEs by offering and initiating innovative logistic solutions (e.g. Automotive Academy Styria, Strengthening of Knowledge Management, INVALL Innovation Value Added Logistics Limburg, Update Logistics, The Stairway) and electronic logistic platforms (INeS Danube, ELAbestLog, Stairway Interactive) and include – among others - also results of excellent EU-projects in this field. They all have in common the aim to increase logistic SMEs' competitiveness by strengthening logistic skills.

Notes

#### Disclaimer

Neither the Managing Authority of the Interreg IVC EU Programme, nor the project partners, nor any of their officers, employees, agents, contractors shall be responsible or liable in negligence or otherwise howsoever in respect of any inaccuracy or omission herein. Without derogating from the generality of the information of this document, the Managing Authority, the project partners, their officers, employees, agents and contractors shall not be liable for any direct or indirect or consequential loss or damage caused by or arising from any information or inaccuracy or omission herein and shall be not liable for any use of the information contained in this document.

