Grant Agreement number: 265710
Project acronym: BESTFACT
Project title: Best Practice Factory for Freight Transport
Funding Scheme: Coordination and support action (Coordinating)
Name of the scientific representative of the project's co-ordinator¹, Title and Organisation:
Marcel Huschebeck, PTV Group
Tel: +49(0)721-9651-178
Fax: +49(0)721-9651-696
E-mail: marcel.huschebeck@ptvgroup.com

Project website² address: www.bestfact.net

¹ Usually the contact person of the coordinator as specified in Art. 8.1. of the grant agreement
² The home page of the website should contain the generic European flag and the FP7 logo which are available in electronic format at the Europa website (logo of the European flag: http://europa.eu/abc/symbols/emblem/index_en.htm ; logo of the 7th FP: http://ec.europa.eu/research/fp7/index_en.cfm?pg=logos). The area of activity of the project should also be mentioned.
1. Final publishable summary report

The objective of BESTFACT was to develop, disseminate and enhance the utilisation of best practices and innovations in freight logistics that contribute to meeting European transport policy objectives with regard to competitiveness and environmental impact.

BESTFACT built up on the work of BESTUFS, PROMIT and BESTLOG and integrated four interrelated areas of the key freight logistics challenges, the European Union is confronted with, and created coherence with the key actions of the Freight Logistics Action Plan:

- Urban Freight,
- Green Logistics and Co-Modality and
- eFreight.

The project established a robust and replicable methodology for collecting and processing best practices. This methodology is a three-level approach that includes the set-up of a comprehensive best practice inventory for which 164 cases will be analysed providing a general description. 64 in depth surveys have been made including a detailed analysis of the best practice cases. All those cases have been used as input for the assessment of their impact. For this impact assessment of the logistics innovations, a common approach based primarily on Multi Criteria Analysis (MCA) was developed. Evaluation criteria and indicators were selected and created for it. MCA was chosen as the main approach for the case evaluations, as it offers a standardized way to take multiple aspects into account and make their impacts commensurable. The primary aim of the developed methodology is not to compare the cases with each other, but to find cases that support desirable targets, to find covered topics with new innovations and approaches and assess the transferability of each case.

Furthermore the development of best practices has been addressed in 3 best practice implementation actions. In those Implementation Actions, BESTFACT supported innovative solutions and got a better insight into the barriers and everyday problems of those Best Practices. For the BESTFACT knowledge base, the 4 Policy Actions have been proved to be very important. The four actions shared knowledge with the project, extending the knowledge base of the project.

In order to distribute the projects results, BESTFACT has organised 9 workshops and 4 conferences all over Europe. The participation on these events from scientists, policy makers and experts from private companies has been very good.

The BESTFACT website (http://www.bestfact.net/) provided interested users with all the results of the project, enabling them to access and download the information they need and also giving an overview on all the new and innovative solutions in Europe.

The project partners also presented the project and its results on many external events, also distributing the brochure, flyers and other dissemination material.
2. Project context and objectives

The objective of BESTFACT was to develop, disseminate and enhance the utilisation of best practices and innovations in freight transport and logistics that contribute to meeting European transport policy objectives with regard to competitiveness and environmental impact.

BESTFACT focussed on the co-ordination and integration of information and know-how on freight transport and logistics solutions. Thus, BESTFACT aimed to become an active ‘Single Window’ for freight transport and logistics best practices, contacts and policies.

The methodology has been designed to build on previous work and integrate current and future activities seamlessly. BESTFACT therefore continued the work begun in BESTUFS, PRO-MIT and BESTLOG, integrating best practices from similar projects and initiatives (e.g. ITS-IT, PROPS or SKEMA) and established a larger and extended dissemination and knowledge platform, under the umbrella of established industrial platforms of POLIS (EU urban) and EIA/ESC (global intermodal / EU shippers). BESTFACT provided clear and practical support to the main target groups: industrial stakeholders, administrations and researchers. Guidance to potential users to develop sustainable solutions was given.

The approach that was taken in BESTFACT is to set up a method and process for long-term, extended dissemination and knowledge about best practice in freight logistics which is complementary to previous, current and future activities in this field. This will be done by establishing an evaluation framework enabling consistent processes to assess, select and benchmark best practices in freight transport and logistics from a qualitative and quantitative perspective. BESTFACT adopted and utilised the most appropriate assessment and benchmarking methodologies as developed and utilised by the experts and scientists within and outside the consortium.

The project focused on and integrated three interrelated areas, the BESTFACT clusters:

- Urban Freight,
- Green Logistics and Co-modality,
- eFreight.

These three clusters have been chosen as they represent the most pressing issues in freight transport and logistics in terms of economic, social and environmental sustainability, as well as being closely linked to important innovations and developments in freight service provision to meet the needs of European economies, and finally as they are in the core of the Freight Transport Logistics Action Plan.

The clusters applied a common working approach and work focussed on information and communication related activities by:

- Gathering and processing information on best practices
- Pooling and focusing information and know-how
- Outlining critical success factors, barriers and limitations
- Bringing stakeholders together, gathering and exchanging information and experiences
- Creating synergies

At the same time the BESTFACT work packages took responsibility for the methodological work and coherence of the project. Key activities in the work packages were:
• to develop an overall methodology for freight logistics best practice and to establish a system for evaluation and benchmarking (carried out in Work Package 2),
• to assess the impact of best practice and its transferability (carried out by Work Package 3) and
• to actively disseminate and promote freight logistics (carried out in Work Package 4)

3. Main S&T results
During the project life time, the main working areas and achievements have been:
• Development of a common working approach defining tasks, roles and responsibilities among the project partners
• Development of an applicable and universal methodology for best practice collection and evaluation and improving it
• Reassessment and further development of BESTFACT methodologies and processes in WP2 and WP3
• Provision of a common structuring approach, being the kernel for future evaluation work, open to other initiatives
• Promotion of Best Practices on many different levels, such as the web-page, mailings, direct transfer on national level
• Political development (e.g. urban freight policy session in cooperation with DG Move)
• Preparation of 164 Inventory cases
• Preparation of 64 in-depth surveys
• Preparation of guidelines and request for quotation for the subcontracting of Implementation actions and Policy actions
• Carrying out 7 Implementation and Policy actions
  o GnewtCargo
  o Cargobikes in Groningen/Assen
  o Sustainability Port-Hinterland Logistics
  o Demanders Driven Solutions in Urban Distribution
  o Service-Dominant Business Modelling in Transport Logistics
  o Data Exchange Handbook (TIEKE)
  o Intermodal Links
• Preparation and distribution of dissemination material (Website, leaflet, brochure, Quick Info format for Best practice cases)
• Further development of the BESTFACT website with new structure that makes it easier for the user to find cases he is interested in and a map
• Several presentations and discussions on conferences all over the world by partners
• Eight BESTFACT newsletters
• Establishing an expert network
• Establishing slim but efficient project management processes
• Organisation of several management meetings and several WP/CL related bilateral meetings.
The main practical results achieved during the project lifetime are a big collection of high value best practice cases giving new insights for decision makers:

- Especially the presentations of best practices on workshops and conferences gained a very good attention and showed that the Network of partners is in place and brings the BESTFACT messages to the target audience.
- Many of the Best practices cases as collected in the project lifetime could be integrated into national activities. Some examples are:
  - The Transport study 2012 of the chamber of commerce of the Stuttgart region providing an urban freight planning concept and Best Practices (prepared by PTV).
  - The Urban freight Planning Handbook Switzerland based on Best Practices as collected in the framework of BESTFACT (prepared by RAPP).
  - Input for the development of the 2014 green book for sustainable logistics / part Best Practices as developed for the BVL in Germany (prepared by ECONSULT).
  - Input for the preparation of the Smart Urban logistics programme of the Climate and energy fund in Austria (prepared by ECONSULT).

This direct transfer to national level overcomes the language barrier and allows especially SMEs and public authorities to profit from the BESTFACT Best Practices.

Furthermore, the following networking and policy development activities of the BESTFACT team can be summarized:

- Links to corresponding projects and initiatives like ALICE, CO3, SMARTFUSION, LaMiLo, MODULUSHCA, VREF COE have been established.
- BESTFACT has been presented and/or represented at many different external events (see “Use and dissemination of foreground”)
- Policy development has been done as follows:
  - EU/TRB Initiative: EU/US Urban Freight Symposium
  - BMVBW/China Initiative: Green Logistics
  - Contributing to the EU urban mobility proposal
  - United Nations Economic Committee for Europe
  - etc.

A core element of the BESTFACT communication and result dissemination is the BESTFACT webpage: [www.bestfact.net](http://www.bestfact.net). The web-page structure with its knowledge corner is especially dedicated to a target audience which is not deeply involved in the world of EU-projects. Within the knowledge corner, interested viewers can access the Best Practices via a map, topics, Clusters, transport modes and a list, supported by a user friendly Best Practice Quick Info Sheet which allows especially SMEs and public authorities to get easy access to the BESTFACT Best Practices.

An overview of the key achievements in terms of collected best practice cases (inventory cases and in-depth), workshops and other outcomes are given in the following overview:
### Key achievement

<table>
<thead>
<tr>
<th></th>
<th>Plan total</th>
<th>Achieved</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best practice Inventory cases</td>
<td>150</td>
<td>164</td>
<td>50</td>
<td>45</td>
<td>39</td>
<td>30</td>
</tr>
<tr>
<td>Best practice In-depth analysis</td>
<td>60</td>
<td>64</td>
<td>13</td>
<td>18</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Workshops</td>
<td>10</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 1 on Urban Freight in Brussels</td>
<td>• 1 on eFreight in Vilnius</td>
<td>• 1 on Green Logistics in Milan</td>
<td>• 1 on eFreight in Barcelona</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 3x1 overall Cluster Workshop in Amsterdam</td>
<td>• 1 in Vienna on Green Logistics and Co-Mobility</td>
<td>• 1 on Urban Freight in London</td>
<td>• 3x1 overall Cluster Workshop in Brussels</td>
</tr>
<tr>
<td>Best practice and policy actions</td>
<td>7</td>
<td>7</td>
<td></td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Dissemination material</td>
<td>Website, brochure, 10 newsletters</td>
<td>Website, brochure, 5 newsletters</td>
<td>Web site, knowledge platform, brochure, 1 newsletter In addition: leaflet, Template Best Practice Quick Info Sheet</td>
<td>Relaunch of Website, publication of Quick Info Sheets, 2 newsletters</td>
<td>Structuring of Website, Including of a map, 3 newsletters, 1 press release</td>
<td>Restructuring of Website, 1 press release, 4 newsletters</td>
</tr>
</tbody>
</table>
3.1 **Cluster Urban Freight**

Cluster 1 collected 49 inventory cases and analysed 20 of them in depth. The collection of cases has been an important step in the work of BESTFACT. The focus of the best practice collection focuses on four key topics:

1. Low emission and emission free road vehicles
2. Alternative modes instead of road transport
3. Urban distribution centres, freight consolidation and loading areas
4. Policy schemes in urban freight

**Low emission and emission free road vehicles**

Within the best practice collection many cases on eVehicle delivery have been analysed and discussed highlighting the innovations electric vehicles provide to the supply chain and last mile delivery.

![Electric truck of Cargohopper, subcontractor of Transmission](image)

**Figure 1: Electric truck of Cargohopper, subcontractor of Transmission**

**Alternative modes instead of road transport**

Replacing vans and trucks in urban freight and logistics grants several benefits. Since urban centres are hotspots of traffic road congestion, reliability of deliveries and freight transport is challenged throughout the peak traffic times. Noise associated with trucks especially in dense areas or historic centres is seen as critical. For cities facing similar difficult constraints on road access to the centre alternative modes have to be employed substituting or supporting truck or van deliveries. Within the BESTFACT project multiple solutions incorporating low emission or zero emission modes have been identified. As an innovative solution to the multiple challenges related to road use, the analyses shows a prevalence of cases relying on waterways as urban transport infrastructure. Even though the preconditions to realise these solutions are quite narrow and historically given by the existing waterway networks these are feasible innovations to consider for all urban areas with some form of central waterway access.

**Urban distribution centres, freight consolidation and loading areas**

Over the course of BESTFACT a wide range of practices were analysed which address urban freight challenges by providing solutions focussing on urban distribution centres, freight consolidation or loading areas.
Policy schemes in urban freight
Main measures included in policy schemes for urban freight in the years 2012-2015 are related to support for clean vehicles and consolidation centres, Low Emissions Zones and wider urban freight schemes that include multiple initiatives.

- Support measures for Clean Vehicles and Consolidation Centres
- Low emission zones
- Wider urban logistics policies

From the collected Best Practice cases, the conclusion can be drawn that two of the core problems faced by existing sustainability strategies in urban freight transport are the relatively small market share of clean technologies and the slow diffusion of technical innovations. As in other business sectors, the technology innovation cycle in freight transport and logistics typically starts with a new idea, then progresses to prototype development and trial, and eventually leads to a full-scale industry or citywide utilisation. But when it comes to clean solutions and electric vehicles, there is a tendency for innovations to remain stuck at the level of small-scale field tests. The difficulty in up-scaling good practices is not well understood.

The vast majority of the urban freight sector continues to use diesel trucks and vans, and fleet modernisation is slow.

The main novelties and current trends in urban freight in 2015 are related to Information and Communication Technologies (ICT). Among several current trends observed in a recent review by Taniguchi et al. (2015), the most important for a sustainable urban freight and logistics policy are:

- Big data and analysis
- Decision support systems
- E-Commerce and home deliveries
- Energy saving and clean technologies
- Combining passenger and freight transport
- 3-D printing and modular offsite construction
- Land use and logistics sprawl
Road pricing.

Looking at these trends, it must be noted at the final year of BESTFACT that for most of them, such as 3-D printing or combined passengers and freight transport, the BESTFACT team could not find documented good practices in Europe.

The key practical output of this Cluster is to give decision makers a detailed knowledge base of success stories and a better understanding about why one solution may be more profitable and beneficial than others. In achieving this objective, BESTFACT has revised the existing methodological approach of best practice evaluation to include a wider range of systematic and new information. Emphasis is put on transferability criteria and on costs and benefits for public and private sector initiatives.

3.2 Cluster Green Logistics and Co-Modality

Co-modality and green logistics are treated as a unified concept throughout the work of Cluster 2. Co-modality, a notion introduced by the European Commission, relies on the use of different transport modes on their own and in combination with the aim to obtain "an optimal and sustainable utilisation of resources". The combination of modes for seamless logistics is strongly linked to the concept of both vertical and horizontal collaboration as well as the “greening” of transport; co-modal solutions retract demand from road alleviating its negatives externalities such as congestion and high fuel consumption. Green logistics is the integrated management of all the activities required to move products through the supply chain in a way that it reduces environmental impacts and meets customer requirements at minimum costs.

Given the volatile energy costs, increased congestion, requirements of the clients and stricter legislation by the EU and different governmental entities, more and more companies have become increasingly active in looking for co-modal and green solutions for their logistics.

The sixty-eight inventory cases and twenty-seven in-depth analyses presented throughout the project show a combination in the trends towards more sustainable logistics approach. Most of the cases are related to the use of cleaner vehicles/vessels; voluntary and mandatory CO2 objectives; investments in infrastructure in order to increase the use of cleaner transport modes and activities of transport associations focusing on the development of corridors and the promotion of intermodality.
There are many challenges to be confronted and surmounted within the wide range of this cluster’s activities and focus. There are no single “silver bullet” type solutions which at a stroke will achieve all of the desired objectives identified and for which there is increasing pressure to realise the desired changes. Within the framework of the project, best practice means different things to different actor groups concerned. To evaluate fairly a wide inventory of projects presented as best practice was itself a challenge to maintain an objective and impartial perspective. Within and between the various transport and logistics modes we found widely (and wildly) variable examples of emergent or implemented best practice. Of equal validity are examples of innovative concepts, systems, technology and hardware. The cluster also dealt with a wide mix of tangible benefits (claimed and achieved) covering financial, operational and commercial gains plus a wide spread of less well defined but no less important benefits relating to environmental, safety and security issues, particularly in relation to energy use and emissions.

The Cluster had to recognise that **commercial considerations** still underpin the functioning of the transport and logistics sector with a focus on cost effectiveness, and competitiveness as the key factors which either lead to the adoption of a project or concept at a wider level or not. Freight transport and logistics are commercial activities and driven by that fundamental dynamic. To some extent, this has meant that wider environmental issues flowing from the development of many logistics and freight transport activities has effectively masked the real implications of what such activities entail. Major players in the logistics and freight transport domain are pursuing a wide variety of initiatives some of which have been developed internally whilst others have developed from the involvement of agencies and other organs of government. Within this spread of activities is a mass of research and development activity which falls within the scope of Cluster 2 topics. Within sectors (e.g. supermarket/retail) individual initiatives and examples vary from major strategic plans to use alternative modes to examples of different operating practices, new technology trials (particularly for vehicle propulsion) and behind the scenes collaboration by competing companies to secure greater levels of efficiency and cost effectiveness.

In these circumstances, one of the main barriers to implementing greener logistics are **financial issues** of investing in greener solutions, especially given the impacts of the last economic crisis. In many cases, these are the aspects where some companies are still extremely cautious investing in new technologies and organisational models. On the other hand, many green solutions have proved to offer decrease in costs (e.g. Dual fuel LNG for IWT), making it worth the investment even in difficult times. These are prime examples of best practice.

The development of **green corridors** and other green initiatives does not appear to have been recognised as fully as might have been expected by proponents when these initiatives were launched. This emphasises the need to recognise a strong commercial focus within projects and case studies. This gap between the initiatives launched by governments and agencies and the commercial world needs to be bridged and the freight/logistics community has a strong buy-in to these sorts of developments or there is a real risk they will go unobserved and unrecognised.
The role of various layers of government involved in developing and assigning investment priorities for infrastructure has to be recognised as a key driver. There are some commercial initiatives to develop new road and rail capacity but these are few and far between and remain essentially a state sponsored function. The elimination of bottlenecks, traffic management and related capacity management initiatives are effectively driven and constrained by governments. This also applies to measures to constrain access through physical and other city planning measures all of which can have an impact on fuel and energy use, potentially this is an area where the activities and findings of BESTFACT could become more relevant.

![Figure 5: ENUBA project develops hybrid trucks for overhead wires](image)

New propulsion technologies and infrastructural investments aside, many of the selected projects focus on organisational issues such as collaboration schemes, business-to-business solutions and improved communication among stakeholders. The development of organisational processes, even though rapidly progressing, can still be significantly improved. As it can be seen from the cases, linking various stakeholders demands clear added value for each one of them. Furthermore, supporting funds may be required to engage stakeholders, as for most private and public funded cases from this year. Network improvements and hubs for aggregating/disaggregating transport flows are two examples of such investments. This limits the transferability potential as solutions requiring high funds discourage emulation.

Furthermore, national or local initiatives with strong replication potential, due to lack of direct benefits or even lack of awareness, are not visible enough to be considered under new circumstances, where their adoption could prove beneficial. Increasing the knowledge of such cases is key to improving the transferability of such solutions. However, on many occasions, information was sparse, for instance due to issues of commercial confidentiality, intellectual property or limited trial experience and other relevant data. Overall, better dissemination of solutions and their direct and indirect impacts in the field could improve their transferability potential.

Moreover, the transferability of such practices could be also dependent on the support of a related political framework. Emission standards, for instance play an important role for the deployment of more sustainable solutions. Besides the national regulatory frameworks, the collection also highlighted the importance of the public authorities as facilitators for the solutions. The need for additional political support could also impede the rollout of the practices in new countries/regions.
Policy frameworks are also instrumental to the further deployment of greener solutions; voluntary or even mandatory CO2-related plans, alternative fuels infrastructure, fuel efficiency and so on are only a few of the related policy measures that support the uptake of greener solutions. Besides the policy framework playing an important role for such solutions, they are still far from being fully adopted and rolled out. On one hand, the strong favouritism to road transport due to its flexibility and the low fuel costs and abundance of refuelling stations and on the other hand, the slow developments in alternative fuel infrastructure, the high investment costs (also on vehicles) and inflexibility of non-road modes in relation to freight services are the main drivers for maintaining the business-as-usual situation and not switching to other modes/fuels etc.

Finally, regarding all solutions, the increase in multimodality and the use of greener solutions requires changing the ‘business as usual’ approach and develop new concepts and technologies. It starts with a ‘mental shift’ and this is one of the biggest challenges.

3.3 Cluster eFreight

47 Inventories and 17 In-Depth analyses have been collected by Cluster 3. They show, that the role of ICT in transport and logistics has become increasingly important throughout the last decades. This stems from the increased demand for efficient, fast, reliable, flexible and safe transport operation, and the transport users’ request for readiness of information on shipments and cargo. In transport chains that consist of several legs, several actors are involved. The information flow between the actors along the transport chains is often fractioned. This causes missing and incorrect data and unnecessary delays. This is especially true for transport chains where more than one transport mode is involved. In particular, there is still a lot of paperwork around all phases of transport (transport planning, execution, and completion), requiring re-entry of data, which is regarded to be an obstacle for correct and efficient information processing.

3.3.1 Scoping and definition of the cluster

The term e-Freight has been used for EU policy and is the name of an EU-funded research and development project. Consequently, for use in the context of BESTFACT, which is about presenting best practices related to logistics, a clear and unambiguous definition of the scope of the e-Freight Cluster is required, so that appropriate projects and systems/solutions that are truly best practices (state-of-the-art) can be provided.

The thematic structuring of the eFreight cluster has been made by looking at three areas:

- Functions (systems/solutions) that support freight transport and logistics operations
- Capabilities related to a “soft” infrastructure that supports information exchange between stakeholders in freight transport and logistics
- Capabilities that may be used to provide information about the status of ongoing freight transport and logistics operations.

Cases related to the area of systems/solutions that supports freight transport and logistics operations have been classified according to the following scheme:
Cases linked to systems to “Soft” Infrastructure are addressed as a combination of the physical point-to-point connection between stakeholders, through virtual point-to-point connection established through the Internet to the “connect once – communicate to all”, which in the e-Freight project is called the Connectivity infrastructure.

Cases on technologies for status reporting include approaches form barcodes (and readers), RFIDs, EPCIS form GS1 is included. This also includes seals on containers.

### 3.3.2 Topics covered

The analysis over all cases investigated confirms the presumption that e-freight cases are rather focused IT-technologies and solutions. Around 60% of the cases are providing a solution for transport optimisation, B2B, B2A/A2B as well as transport and fleet management, which is obviously connected to the functionality of data collection and statistics.

Secondly comes for around 50% of the cases the support of access to transport networks, infrastructures and nodes, freight consolidation and transhipment, innovative operational solutions, value added services as well as monitoring and benchmarking processes. Of rather low interest are topics as innovative equipment, low emission technologies and new business models as well as education and training. It can be concluded that e-Freight solutions should serve the specific scope to make transport and its management more efficient. Secondary effects as lower emissions are not relevant for decision to implement e-freight solutions.
Overall, it can be stated that most cases collected addressed innovative IT technologies for the implementation of e-Freight. Neither for the ‘Internet for cargo’ nor for the Access point concept an application could be shown. ICT to optimize and manage transport was another significant topic.

Most solutions focus on B2B information exchange. Although for the cases presented in BESTFACT there is hardly a focus on A2B/B2A and A2A interactions, the topics in these key themes are being addressed. Some cases deal with standardised electronic documents. As a consequence, all key themes of the e-Freight cluster are covered.
As far as the additional topics for the e-freight cluster are concerned, a thematic gap can be observed in the field of education and training. Administration is covered, but concerning the coordination of e-Freight concepts, apparently, none of the cases referred to the ITS action plan or the Freight logistics action plan of the EC.

3.3.3 Conclusions

Information flow between the actors is not standardized. This is a result from the fact that many actors each have their own tradition and idea of information exchange and information processing. The diversity of information and communication equipment and data formats used has become a problem for the introduction of advanced ICT systems, as necessary tailor-made interfaces are very costly.

This problem does not only affect the business-to-business (B2B) relationships in the transport-related information flow, but also the communication between businesses and authorities (B2A/A2B) as well as the exchange of information between authorities (A2A). So-called ‘one stop administrative shops’ mean that there are single access points that co-ordinate the administration and speed up processes. With these single access points, necessary transport-related documents will have to be presented to authorities only once. The implementation of the paperless customs procedures aims in that direction. A variety of advanced ICT solutions has been introduced in the transport and logistics industry. Examples are:

- freight forwarding software with various functionalities,
- route planning systems,
- e-commerce platforms,
- online freight exchanges,
- integration into ERP systems of shippers, or
- GPS-based vehicle tracking and online tracking and tracing for clients

Despite this, there is still a lack of efficiency and consistency in the flow of information regarding the transport documents that are exchanged and regarding the large number of communication relationships among the actors involved. Moreover, Intelligent Transport Systems (ITS) are regarded as an enabler for a paperless information trail in the management
of the physical flow of goods, but for this purpose their implementation and usage should be accelerated and coordinated across Europe.

### 3.4 Impact Analysis

The six stage approach for the BESTFACT Best Practice impact analysis is presented in Figure 9. The starting point for the analysis and recommendations are the needs of business and policy, at European and local levels. The cluster goals are defined in Description of Work and specified in cluster reports. Recommendations are meant to respond to these goals. The current state of the art (Status Quo analysis) is compared to the policy and business goals in order to identify gaps in current practices.

Setting agenda means Best Practice optional solutions (alternatives) and is the key practical activity reported for each of the Best Practice cases. The impact analysis points out the effects of the collected 157 European cases. A Quick info sheet of each case can be found online on: [http://www.bestfact.net/best-practices/](http://www.bestfact.net/best-practices/).

The two last steps, the impact evaluation and the recommendations are the focus of this report. The impact analysis methodology is using quantitative and qualitative indicators in order to be able to identify whether objectives have been met. If objectives have been met partially, the need for further activities and policies will be considered. The impact analysis is therefore the result of all previous steps that are integrated together.

For the impact assessment of the logistics innovations, a common approach based primarily on Multi Criteria Analysis (MCA) was developed. Evaluation criteria and indicators were selected and created for the best practice impact analysis. MCA was chosen as the main approach for the case evaluations, as it offers a standardized way to take multiple aspects into account and make their impacts commensurable. The primary aim of the developed methodology is not to compare the cases with each other, but to find cases that support desirable targets, to find covered topics with new innovations and approaches and assess the transferability of each case.
The six stage approach for the BESTFACT Best Practice impact analysis is presented in the figure above. The starting point for the analysis and recommendations are the needs of business and policy, at European and local levels. The cluster goals are defined in the Description of Work (DoW) and specified in cluster reports. Recommendations are meant to respond to these goals. The current state of the art (Status Quo analysis) is compared to the policy and business goals in order to identify gaps in current practices.

Setting agenda means Best Practice optional solutions (alternatives) and is the key practical activity reported for each of the Best Practice cases. The impact analysis points out the effects of the collected 157 European cases during the 4 years of BESTFACT.

The impact analysis methodology is using quantitative and qualitative indicators in order to be able to identify whether objectives have been met. If objectives have been met partially, the need for further activities and policies will be considered. The impact analysis is therefore the result of all previous steps that are integrated together.

A case specific presentation is given in Figure 10, showing the impact on strategic targets and transferability in a different colour approach per case in which green means major impact, yellow medium impact and white no impact.
The specific recommendations are derived for each case from the previous steps and the results of the impact analysis. The general recommendations then are derived from a systematic look at all cases and from similarities that can be found across all cases and all impact analysis. Recommendations are directed to cluster topics on policy and business level.

Besides having applied the impact evaluation tool to 157 cases, recommendations were developed on policy tools as a part of BESTFACT implementation action. The aim of implementation actions is to identify and develop innovative policy tools facilitating and supporting the implementation process of best practices. Policy Actions are focusing on transferability of (existing) best practices: Stimulating modal shift, co-operation of stakeholders, improving administrative processes and overcoming bottlenecks for Best Practice transferability. The development of innovative policy schemes included four cases:

- **Use of battery-electric tricycles and vans for retail distribution in London – case Gnewt Cargo.** Electrically-assisted cargo tricycles and electric vans are used to deliver parcels from a small urban consolidation centre to customers in the centre of London. The operation of the vehicles does not result in any fossil fuel consumption or greenhouse gas emissions as the electricity used is produced from renewable sources. The urban consolidation centre and the deliveries made from it are operated by the new company Gnewt Cargo, specialising in green urban freight deliveries.

- **Service-Dominant Business Modelling in Transport and Logistics.** The model covers business goal engineering, which contains two layers: the service-dominant business strategy and business models and business operations engineering, which contains business services and service composition. Two cases were performed in this action are Business model 1: Flexible On-Time Delivery and Business model 2: Fast-Lane End-to-End Shipping.

- **Demand driven solutions in urban distribution Validation policy tool, case Leve de Stad.** Leve de Stad! has developed a political tool for demand driven policy actions in urban freight handling. This can be applied in other EU Member States as well, thus can serve as a policy concept at EU level. Leve de Stad! is the successor of the Platform Stedelijke Distributie (PSD), a Dutch public private partnership of 11 organisations, including various ministries. From 1995 - 2002, PSD developed some standard solutions for various municipal urban freight problems and covered 52 municipalities.

- **Simplifying Standard Message Exchange.** The data exchange handbook, produced by TIEKE, gives advise how to develop software applications to take electronic interchange into use. The handbook is also a tool for enterprises to discuss with the application software suppliers to have features needed in the electronic data interchange in to their software and also to have conversations with their business partners.
Conclusions

Final output D3.2 „Recommendation and policy tools” provides recommendations for decision makers in policy and business, aiming at stimulating and facilitating the transferability and broader implementation of Best Practices. These recommendations are derived from the impact analysis of 157 best practice cases, collected by the BESTFACT project. The results show the main observed and summarised impacts of each current Best Practice case, its main contribution, strategic targets and topics where the cases have positive or non-favourable impacts. The results also include the assessed transferability.

Recommendations on urban freight deal with the
- The use of low emission and emission free road vehicles
- Alternative modes instead of road transport
- Urban distribution centres, freight consolidation and loading areas
- Policy schemes in urban freight.

Recommendations for green logistics and co-modality are focusing on
- Intermodal services and connections
- Innovative new technologies
- Decarbonising
- Collaboration.

Key recommendations on e-Freight deal with
- ICT based collaboration solutions
- Standardised, paperless information exchange and platforms
- Port and terminal related IT management tools
- Integrated ITS in freight operations.

### 3.5 Best Practice Handbook

The main objectives for the Best Practice Handbook were:
- To identify the main challenges and strategic targets in freight logistics transport chains
- To establish a methodology framework for best practice collection and evaluation across the different clusters
- To identify and collect recent and ongoing freight transport solutions
- To describe and evaluate best practices in freight transport and to derive critical success factors and barriers
- To consolidate and integrate relevant information of best practices into Best Practice Handbooks
- To coordinate the cluster partners which contribute to Best Practices

The WP2 approach was based on a comprehensive structure following a clear methodology in selecting, processing, presenting and synthesising best practices and resulting learnings. The main starting point was the assessment of key challenges and strategic targets of industry and public authorities related to freight transport and logistics through a dedicated online survey. Through workshops with work package (WP) leaders and cluster leaders (CL) the
methodological approach and key questions for the survey were identified. With mails and
invitations to contacts around the consortium network a wide audience, spanning across Europe
was reached. More than 220 respondents filled the full survey. A segmented analysis of the
survey results lead to the identification of important focal points concerning targets and topics
in the BESTFACT cluster work.

With a feedback process involving all consortium members a best practice methodology was
developed, following best practice cases from the proposal to publication within the Best
Practice handbook (BPH). The methodology was based the goal of BESTFACT to reach a
certain number of cases (150 cases, with 60 in-depth analyses) in total and divided between the
three clusters. From the targeted case number the methodology was developed to process a
suitable amount of cases in a stepwise approach to assure quantity and quality of cases. This
involved a broad collection of cases and ideas in long lists and narrowing down the numbers
through set minimum requirements and, successively, a multi criteria analysis (MCA) to arrive
at the short list: the BESTFACT inventory. Furthermore, in-depth cases were prepared from
suitable cases out of the inventory, when detailed information on outstanding cases was
available.

The process also included the use of a standardised format to collect inventory and in-depth
cases for BESTFACT. The format developed had to be applicable to all three thematic clusters
in the project, as well as apply to as many as possible different case types. This led to some
difficulties in filling the templates among partners which were overcome through a second
feedback round in year 2 of the project. The feedback round also allowed the integration of
comments by reviewers and the European Commission. Especially the focus on SME
involvement and benefits was added.
As the final step in the best practice methodology of WP2 stands the publication of the BPH after an evaluation and overview of all cases was achieved. Three issues were planned to highlight cases of three separate timeframes of the project. After the second version it was decided to extend the final handbook to include an overview over all four years of BESTFACT. In cooperation with the CL the key topics of collected cases were identified and relevant cases for each cluster were prepared to match designated topics. Therefore the final handbook serves as an extensive overview over the BESTFACT case collection and gives an in-depth insight into the recent innovations and trends over the thematic BESTFACT clusters.

The challenges of the BESTFACT methodology in its application arose from the selection process of cases. This was mainly based on conflicting interpretations of „best” practice. To improve the common understanding, clearer and more practicable definitions for best practice in the context of the project were defined over the course of the first project year and included in revised reports and deliverables. This eased the selection process of cases and lead to a more consistent form of including cases into the inventory. Furthermore, a differentiation between well-established and evolving best practices was introduced to enable analyses of more innovative solutions which were not fully developed or partially lacking in the set criteria but showing very high potential.

To further optimise the presentation of BESTFACT cases the consortium agreed on the preparation of additional quick info sheets (QIS). These added a graphical and summarised format to the case preparation but allowed a separate publication of all cases on the BESTFACT webpage. The QIS supplement the publication of the BPH which originally was intended to contain all collected cases and a detailed summary of cases. In order to be more appealing to readers the BPH format was made more concise with every issue. The focus was on a topic based summary and synthesis of cases. For interested parties in further collected and analysed cases the QIS were offered easily accessible.

BESTFACT WP2 delivered a valuable input to a thematic and topic based overview of best practices across Europe. In the structured collection of cases it became apparent that due to varying levels of regional development across the EU countries, different levels of maturity in technology were perceived as differing levels of innovation. Challenges in countries such as the Netherlands or Germany are not commonly comparable to challenges in Lithuania or Slovenia and thus solutions are developed to suit different needs. The developed solutions are therefore commonly only applied in local or regional markets. A full diffusion across Europe still has barriers. A key driver of best practice development and transfer are personal contacts and networks which were supported through workshops and the provision of contact details where ever possible. As each case needs a regional tailoring, it is a central challenge to clearly make identifiable benefits and success factors of cases visible. Here the BESTFACT approach of a common methodology and structured presentation delivers a valuable contribution. It would be of high value to continue the BESTFACT approach with the record of the entire four year work base. The central collection, analysis and management of a best practice knowledge base would strongly benefit the exchange and adaption of innovations across Europe. Having the efforts centralised, a follow-up to BESTFACT could be established as a one-stop-shop.
3.6 Implementation Actions

The aim of implementation actions is to stimulate and facilitate transferability of best practices. The development of innovative implementation and policy actions included the following cases:

- **Cargobikes in Groningen/Assen.** In the Dutch region of Assen and Groningen, BESTFACT supports the local administration in advertisement and distribution of electric cargo bikes. Local SMEs get a financial support for buying a cargo bike. In return, they provide BESTFACT with data on the usage of the bike. By that the practical use of e-cargo-bikes for urban distribution can be demonstrated.

- **Sustainable Port-Hinterland Logistics.** Insight in the day to day functioning of a Circle Line that functions now in practice: the daily challenges and options for solutions and how is it kept going.

- **Demand driven solutions in urban distribution Validation policy tool, case Leve de Stad.** Leve de Stad! has developed a political tool for demand driven policy actions in urban freight handling. This can be applied in other EU Member States as well, thus can serve as a policy concept at EU level. Leve de Stad! is the successor of the Platform Stedelijke Distributie (PSD), a Dutch public private partnership of 11 organisations, including various ministries. From 1995 - 2002, PSD developed some standard solutions for various municipal urban freight problems and covered 52 municipalities.

- **Intermodal Links.** Within the BESTFACT project Ecorys and PTV have established an interface between the web-based intermodal search-engine Intermodal Links (Ecorys) and the Data Manager Application (PTV).
### 3.7 List of all beneficiaries

Here is a list of all beneficiaries and the correct contacts:

<table>
<thead>
<tr>
<th>Project partners</th>
<th>Contact Name</th>
<th>Phone</th>
<th>Email</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planung Transport Verkehr AG</strong></td>
<td>Marcel Huschebeck</td>
<td>+49 721 9651 178</td>
<td><a href="mailto:marcel.huschebeck@ptv.de">marcel.huschebeck@ptv.de</a></td>
<td>GER</td>
</tr>
<tr>
<td><strong>AFT-IFTIM</strong></td>
<td>Julie Murat</td>
<td>+33 344 66 37 66</td>
<td><a href="mailto:juliemurat@aft-iftim.com">juliemurat@aft-iftim.com</a></td>
<td>FRA</td>
</tr>
<tr>
<td><strong>Econsult Betriebsberatungsgesellschaft mbH</strong></td>
<td>Jürgen Schrampf</td>
<td>+43 1615705034</td>
<td><a href="mailto:j.schrampf@econsult.at">j.schrampf@econsult.at</a></td>
<td>AUT</td>
</tr>
<tr>
<td><strong>European Shippers Council</strong></td>
<td>Peter Wolters</td>
<td>+32 2 344 66 37 66</td>
<td><a href="mailto:p.wolters@europeanshipners.eu">p.wolters@europeanshipners.eu</a></td>
<td>BEL</td>
</tr>
<tr>
<td><strong>Gruppo CLAS SpA</strong></td>
<td>Alberto Milotti</td>
<td>+39 3472315495</td>
<td><a href="mailto:a.milotti@gruppoclas.com">a.milotti@gruppoclas.com</a></td>
<td>ITA</td>
</tr>
<tr>
<td><strong>Instituts Francais des Sciences et Technologies des Transports de l’Aménagement et des Réseaux</strong></td>
<td>Christophe Rizet</td>
<td>+33 145925598</td>
<td><a href="mailto:christophe.rizet@ifsttar.fr">christophe.rizet@ifsttar.fr</a></td>
<td>FRA</td>
</tr>
<tr>
<td><strong>Instituto Tecnologico del Embalaje Transporte y Logistica</strong></td>
<td>Patricia Bellver</td>
<td>+34 961820155</td>
<td><a href="mailto:pbellver@itene.com">pbellver@itene.com</a></td>
<td>ESP</td>
</tr>
<tr>
<td><strong>Lithuanian Intermodal Transport Technology Platform/ Vilnius Gediminas Technical University</strong></td>
<td>Algirdas Sakalys</td>
<td>+370 68661660</td>
<td><a href="mailto:a.sakalys@lrv.lt">a.sakalys@lrv.lt</a>; <a href="mailto:algirdas.sakalys@vgtu.lt">algirdas.sakalys@vgtu.lt</a></td>
<td>LTU</td>
</tr>
<tr>
<td><strong>MARLO AS</strong></td>
<td>Jan Tore Pedersen</td>
<td>+47 64930735</td>
<td><a href="mailto:jantp@marlo.no">jantp@marlo.no</a></td>
<td>NOR</td>
</tr>
<tr>
<td><strong>Mobycon</strong></td>
<td>Ronald Jorna</td>
<td>+31 4225780</td>
<td><a href="mailto:r.jorna@mobycon.nl">r.jorna@mobycon.nl</a></td>
<td>NED</td>
</tr>
<tr>
<td><strong>Bluegreen</strong></td>
<td>Paolo Paganelli</td>
<td>+39 0510 827 498</td>
<td><a href="mailto:paolo.paganelli@bluegreenstrategy.com">paolo.paganelli@bluegreenstrategy.com</a></td>
<td>ITA</td>
</tr>
</tbody>
</table>
### Project partners

<table>
<thead>
<tr>
<th>University of Newcastle upon Tyne – Newrail</th>
<th>Tom Zunder</th>
<th>GBR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+44 1226379789</td>
<td><a href="mailto:tom.zunder@ncl.ac.uk">tom.zunder@ncl.ac.uk</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PANTEIA</th>
<th>Konstantina Laparidou</th>
<th>NED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+31 79 322 23 95</td>
<td><a href="mailto:k.laparidou@panteia.nl">k.laparidou@panteia.nl</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POLIS</th>
<th>Promotion of Operational Links with Integrated Services</th>
<th>Gabriela Barrera</th>
<th>BEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>+32 2 500 56 77</td>
<td><a href="mailto:g.barrera@polisnetwork.eu">g.barrera@polisnetwork.eu</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rapp Trans AG</th>
<th>Martin Ruesch</th>
<th>SUI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+41 58 595 72 43</td>
<td><a href="mailto:martin.ruesch@rapp.ch">martin.ruesch@rapp.ch</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>University Maribor</th>
<th>Stanislav Bozicnik</th>
<th>SLO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+386 <a href="mailto:stane.bozicnik@uni-mb.si">stane.bozicnik@uni-mb.si</a></td>
<td>22294311</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>University of Westminster</th>
<th>Jacques Leonardi</th>
<th>GBR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+44 20 3506 6628</td>
<td><a href="mailto:j.leonardi@westminster.ac.uk">j.leonardi@westminster.ac.uk</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valtion teknillinen tutkimuskeskus</th>
<th>Antti Permala</th>
<th>FIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+358 722 4535</td>
<td><a href="mailto:antti.permala@vtt.fi">antti.permala@vtt.fi</a></td>
</tr>
</tbody>
</table>
4. Impact and the main dissemination activities and exploitation of results

Dissemination has always been a mayor goal in the project. That was one reason why a plan for external dissemination has been developed in May 2012 and revised in February 2014. This plan has been continuously observed and adapted in the means and tools. At the same time, the project has developed the BESTFACT Knowledge Platform that represents the main outlet of data and information about the project and its results.

The Dissemination in BESTFACT, therefore, is not only a coordinated basket of tools to give visibility to the project. Indeed it is one of the most important aspects in order to achieve the project’s objectives. The document, consequently, enumerates and describes the various instruments that are on hand for the consortium as a whole to establish a fruitful dissemination activity.

The BESTFACT dissemination strategy succeeded in the sense that a mix of actions to disseminate best practices to a broad range of stakeholders was well received. BESTFACT communication raised awareness concerning the BESTFACT benefits, it provided understanding of the project context, processes, objectives and results, it fostered involvement of concerned entities in best practices collection, and also it provided dedicated information that allows an easy up-take of best practices.

Ambitious dissemination actions turned BESTFACT into the first EU portal of freight transport best practices, contacts and policies. The central aim to facilitate knowledge transfer towards industrial and administrative stakeholders was executed. BESTFACT raised awareness about the benefits of the analysed cases (co-modality, green logistics, e-Freight) for society at large and city authorities in specific in terms sustainability, for industry in terms of service quality. The dissemination provided understanding of the project context and fostered the involvement of relevant stakeholders in freight best practices and knowledge exploitation. Key dissemination activities are described hereafter.

The term “target group” can be used to describe the different groups of stakeholders connected to the project. Therefore, it is important to think about the audience in segments. In this sense BESTFACT has pointed out three target groups:

- stakeholders, end-users and suppliers;
- individual companies especially SMEs as potential users;
- Public authorities.

As far as stakeholders, end-users and suppliers are concerned, the list includes logistics services providers, forwarders, manufacture industries, shippers etc. They are the target of a specific attention because of their paramount, and sometimes exclusive, role in taking the decision of which mode will be used for a certain transport of good.

Individual companies, especially SMEs, have been considered as a target group because of the actual threshold for them “to go intermodal”, which is still too high in terms of costs and investments needed. A collection of best practices may be useful in giving SMEs the right
inspiration about how to build alignment and cooperation among them aimed to share costs and consolidate the transport of goods.

Finally, attention is particularly paid to the needs and requests of public authorities, which are responsible for the use of public money. The results of BESTFACT and the dissemination help them to act according to the criteria of sustainability and accountability. Special effort has been put in reaching out not only the authorities at local level, who have a decisive role in implementing urban logistic best practices, but even the national and supra-national authorities, who are often in need of „on the ground” expertise and of effective tools to measure the real impact of the policies they have adopted in the domain of transport and logistics.

Various **communication channels** were used for the Dissemination of BESTFACT, to reach its objectives. Each one has to be used considering its relevance to the different Target groups and the level of detail it is best suited for. The main channels for the dissemination strategy are Press and Events organized in the framework of BESTFACT project as well as events organized in partnership with other projects and other external relevant events.

**Website**

An integrated and interactive knowledge freight platform was set up (partner PTV). It comprised an information pool, visualizing best practices, project results e.g. freight handbooks. The function of the Knowledge Platform was to serve as intelligent guidance between best practices and interest groups. Early in the project, a first version of the Knowledge Platform had been implemented by creating the project website (www.BESTFACT.net). The website has been conceived as a user friendly tool that allows both partners and externals to access all BESTFACT information rapidly and intuitively. After constant updating and several restructuring according to the needs of the client, end users and project partners, the website now appears subdivided in four areas: Knowledge Corner, Events, Actions and Project (Figure 12).

---

**Figure 12:** Starting page www.BESTFACT.net
In the Knowledge Corner section, the visitor can find different ways to find Best Practices (BP) that are interesting to him (Figure 14). Visitors can also use a map (Figure 13).

This map has been integrated via a Google kml standard and demonstrates users where the different BPs are located. The user can zoom, pan and click in the map. If he chooses a BP by clicking onto the pin, he can find further information by clicking onto the picture. This leads him to a short description of the case and the Quick Info Sheet.

Many users want to read all BPs from a specific topic. This can be done for several different topics, such as “Infrastructure and technology” or “regulations and policy”. All main topics also have different subtopics. It is also made very easy to search for BPs that involve a specific mode of transport, e.g. heavy rail or e-bikes. Just a click and all BP concerning this mode are shown on the screen.

The last two methods to filter the BPs according to the visitor’s needs are the “Clusters” and “Lists and Pageflip” buttons. This is an easy way to see all BPs from the different BESTFACT Clusters. The Pageflip function lets the user read through all cases like a book.
In the events section, all BESTFACT and related events have been promoted during the project lifetime. After each event, the presentations had been uploaded directly afterwards.

In the “Actions” section (Figure 15), all Implementation and Policy Actions are presented, name of service, content and results. Also related documents have been uploaded and can be read.

In the “Project” section, the visitor is able to find all the facts and figures related to the objectives of the project. From the press and advertisement material to the presentation of other parallel initiatives; from the possibility to present a BP, to the opportunity of requesting an expert’s advice; from the contact form to the project deliverables to corresponding initiatives and projects, also to press releases.

The Page Impressions during the last two years are quite positive but vary a lot, between 1275 and 4693 PIs a month (Figure 16).

Every year, the visits were lower during the summer and winter break but especially workshops and new Best Practices on the website were able to attract more visitors. The biggest peak in September and October 2015 was because of the final conference.

---

**Figure 16: Page Impressions 2014-2015**

**Figure 17: Origin of Visitors**
The proof that the dissemination activities and the creation of links to other projects was successful is shown in the Figure 17. The percentage of people that directly went to www.BESTFACT.net (“Incoming”) decreased by 15% since June 2014, while more and more people reached the BESTFACT website via hyperlinks (“Referring Websites”) from other websites (+ 10%). This shows that the BESTFACT website has been hyperlinked on many different websites and many interested people found it that way.

Newsletters
Eight newsletters were produced by partner ITENE during the BESTFACT project. The content was made accessible via website and mailings to the BESTFACT interest group. Target group of the newsletters were the members of POLIS (city authorities; urban stakeholders) especially regarding cluster 1 (urban freight). Target group for cluster 2 (green logistics & co-modality) was the membership base of the intermodal association EIA as well as all coordinates of intermodal minded freight stakeholders. Target group of cluster 3 (e-freight) was a broad range of digital and electronic minded freight stakeholders.

No. 8 – November 2015  
No. 7 – September 2015  
No. 6 – July 2015  
No. 5 – January 2015  
No. 4 – October 2014  
No. 3 – May 2014  
No. 2 – January 2014  
No. 1 – December 2012

Content of the newsletters:
- Message from the project coordinator placing BESTFACT activities within a context, stimulating a growing ‘sustainability’ community to be involved
- Board meeting discussions
- Messages from authorities (e.g. DG MOVE; city authority Copenhagen; London etc)
- BESTFACT communication actions towards various institutions
- Conferences and cluster workshop announcements and results
- Interviews with external authorities and/or industries (e.g. Hewlett Packard)
- Exhibition / stand results
- Tendering contract news (small subsidy for SME cases e.g. GnewtCargo; Cargobikes in Groningen; ECO SLC; TIEKE)

Brochures
The Dissemination Strategy included the release of two comprehensive brochures at different project stages covering the concept, objectives, advancement and exploitable results of the project. The first was issued prior to the first BESTFACT Conference and has been slightly modified after the first round of workshops. A second (and last) release was issued later in the project. The realisation of the brochures was undertaken by ITENE.

Social media
Social media actions were undertaken (partner NewRail) aiming at profiling BESTFACT as modern initiative towards a growing digital business environment. A flickr account was set up
BESTFACT partners EIA/ESC promoted BESTFACT via LinkedIn (ITN intermodal network, 6,000 members).

**Mailing List**
A mailing list has been compiled using inputs from the project partners and the contacts of people that registered for participating to a BESTFACT event, after asking their permission of being included in the BESTFACT records. The Mailing List was used with the objective of informing all the subscribed persons about upcoming BESTFACT events, project results, discussions on LinkedIn.

The mailing list was managed by PTV, POLIS, NEWRAIL and EIA/ESC (e.g. the latter database consisted of 3,000 emails). Databases of external partners were used as well (e.g. EURIFT, the European Reference Centre for Intermodal Freight Transport).

ESC also launched an extensive BESTFACT mailing campaign towards all ESC members in August and September 2015. Shippers origin from a broad range of sector representations (paper, steel, construction) and multinationals (FMCG) and well-known ‘brands’ (Bacardi; Ferrero). Dedicated mails were transmitted under the heading ‘New Freight Best Practices’ including references to available best practice cases per cluster (Urban; Co-modality & Green logistics; E-freight). Members were asked to select their industrial preference by selecting clusters and topics (infrastructure; cooperation; operations; regulations; knowledge & tools).

A positive interest was expressed for BESTFACT as single window as such, seen the fact no consolidated format exist. Specific interest was expressed for cluster 2 (co-modality) and topics Infrastructure/technologies; Operations/services; Knowledge/tools/methods. Specific questions related to ‘E-Freight’ were discussed (e.g. ‘is e-freight supposed to refer to systems supporting electronic exchange of freight related documentation with a view to paperless shipping, or other defined areas?’). ESC took this as opportunity to involve interested members in related e-freight initiatives at EU level. Furthermore, questions were posed regarding intermodal transport in relation to EMS trucking. ESC staff replied accordingly by searching and delivering suitable BESTFACT cases and related information from EU or MS level. A package of cases and related links were assembled and subsequently provided to all shippers who expressed an interest in follow up actions.

**Movies**
A movie was broadcasted on the Belgium Logistics.TV (Kanaal Z; a business channel for logistics) in cooperation with BESTFACT partner ESC. The decision was taken to use the Transport & Logistics Exhibition in Antwerp as venue. After preparations with studio staff, ESC conveyed short but strong messages as answer to prepared questions (what is BESTFACT; what are main urban logistic bottlenecks; what are future trends/innovations).
### 4.1 Use and dissemination of foreground

**Section A (public)**

*In the following table, you will find all scientific publications about BESTFACT:*

<table>
<thead>
<tr>
<th>NO.</th>
<th>Title</th>
<th>Main author</th>
<th>Title of the periodical or the series</th>
<th>Number, date or frequency</th>
<th>Publisher</th>
<th>Place of publication</th>
<th>Year of publication</th>
<th>Relevant pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Best practice factory for freight transport in Europe: demonstrating how 'good' urban freight cases are improving business profit and public sectors benefits</td>
<td>Jacques Leonardi</td>
<td>Procedia – Social and Behavioral Sciences</td>
<td>Volume 125</td>
<td></td>
<td></td>
<td>2015</td>
<td>pp. 84 - 98</td>
</tr>
<tr>
<td>5</td>
<td>Decarbonising Freight Transport: Good Practice Cases in Europe,</td>
<td>Jacques Leonardi</td>
<td>Workshop on Climate Change mitigation in Transport</td>
<td>Hanoi</td>
<td></td>
<td></td>
<td>2016</td>
<td></td>
</tr>
</tbody>
</table>
In the following, you will find a list of all BESTFACT mentionings in the Press, be it local, international press or specialists papers. The press articles are in different languages, but mostly english:

24.10.2015 – Lietuvos Žinios (second larges daily newspaper in Lithuania): Transporto vadove bus Lietuvos pavyzdziu

21.10.2015 – Lietuvos Žinios (second larges daily newspaper in Lithuania): Aptars ES transporto ateiti

2015.09.29 – LOGISTICS.TV Live Studio (dutch): Discussion about city logistics with Marc Schepers (CityDepot) and Peter Wolters (BESTFACT – ESC)

17.06.2015 – Lietuvos Žinios (second larges daily newspaper in Lithuania): Lietuvoje vyks tarptautinė BESTFACT konferencija kartu su „Transport Means 2015“

15.05.2015 – Izinios.lt (second larges daily newspaper in Lithuania): Ministras pareiškė politinį palaikymą EWTCA renginiams

14 -15.10.2014 – 1st European Forum of Logistic Clusters 2014: Peter Wolters (EIA) moderates the panel discussion „Change of mode, change of mind-set: how to give inter- and synchronomodality more chances to expand?“

10/2014 – Nordic Road and Transport Research (2/2014): Best Practice Factory for Freight Transport

10/2014 – DVZ (84/2014) – Themenheft Logistik: Auf neuen Wegen in die Stadt

15.10.2014 – Nationaal verkeerskundecongres 2014: NVC 2014 | De elektrische (bak)fiets (video)

09/2014 – LogReal.direct: Smarte Logistik für smarte Städte

07/2014 – BOX – Magazine for intermodal exchange and development: BESTFACT en zijn awards

06/2014 – die Wirtschaft: Logistik im Wandel


17.03.2014 – Economie Groningen: Subsidie maakt elektrische bakfiets extra aantrekkelijk voor ondernemers

24.02.2014 – Groninger Internet Courant: Elektrische bakfiets met fikse korting slaat aan in Groningen; Musicus Jan van Dijk blij met „ideaal vervoermiddel“
18.11.2013 – Lietuvos Rytas (the largest daily in Lithuania): Mokslas verslui jau tiesia pagalbos ranka

10/2013 – Railway Pro: Global supply chains, regional logistic platforms: creating value using rail as backbone between Asian & EU ports and cities


10.10.2013 – rai vereniging (Rijwiel en Atomobiel Industrie): Groninger proef met e-bakfiets voor ondernemers

04.10.2013 – Verkeerswereld: Ondernemers Groningen proberen e-bakfiets uit

04.10.2013 – Verkehrsnet: Groningen test e-bakfiets


02.10.2013 – Regio Groningen-Assen: Wethouder Van Keulen geeft startsein e-bakfiets campagne

09/2013 – Business + Logistic (Austria): Alles wird smart – auch die Logistik?

19.06.2013 – Lietuvos žinios (daily newspaper in Lithuania): Vilniuje naujos logistikos idėjos


02/2012 – Business + Logistic (Austria): BESTFACT: Wissensaustausch funktioniert
In the following table, you will find all events BESTFACT has been represented by partners:

<table>
<thead>
<tr>
<th>Dates</th>
<th>Location</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 April 2012</td>
<td>Karlsruhe, DE</td>
<td>WP2 Expert workshop on strategic targets</td>
</tr>
<tr>
<td>May 2012</td>
<td>Leipzig DE</td>
<td>ITF</td>
</tr>
<tr>
<td>May 2012</td>
<td>Poznan PL</td>
<td>Polish Logistics Congress</td>
</tr>
<tr>
<td>12-13 June 2012</td>
<td>St. Leon Rot DE</td>
<td>International SAP Conference for Transportation and Logistics 2012</td>
</tr>
<tr>
<td>21-22 June 2012</td>
<td>Amsterdam, NL</td>
<td>1st International Cluster Workshop, Eco-efficient solutions in freight transport chains</td>
</tr>
<tr>
<td>June 2012</td>
<td></td>
<td>Logistics Research Network</td>
</tr>
<tr>
<td>12-14 September 2012</td>
<td>Bergen NO</td>
<td>Gas Fuelled Ships Conference</td>
</tr>
<tr>
<td>18-21 September 2012</td>
<td>Berlin DE</td>
<td>InnoTrans 2012 - International Trade Fair for Transport Technology</td>
</tr>
<tr>
<td>03-05 October 2012</td>
<td>Marseille FR</td>
<td>GreenPort Congress 2012</td>
</tr>
<tr>
<td>08-10 October 2012</td>
<td>Glasgow UK</td>
<td>European Transport Conference 2012</td>
</tr>
<tr>
<td>09-10 October 2012</td>
<td>Bucharest RO</td>
<td>Railway Days - Wider Black Sea Area Summit</td>
</tr>
<tr>
<td>09-11 October 2012</td>
<td>Brussels BE</td>
<td>LogiMed 2012</td>
</tr>
<tr>
<td>17 October 2012</td>
<td>London UK</td>
<td>1-2-1 Supply Chain Excellence Summit</td>
</tr>
<tr>
<td>22-26.10.12</td>
<td>Vienna AU</td>
<td>19th ITS World Congress</td>
</tr>
<tr>
<td>15 November 2012</td>
<td>Amsterdam NL</td>
<td>Smart Stations and Terminals World - Europe</td>
</tr>
<tr>
<td>November 2012</td>
<td>Gothenburg SE</td>
<td>ECITL</td>
</tr>
<tr>
<td>20-21 November 2012</td>
<td>Brussels BE</td>
<td>Extended Supply Chain Conference</td>
</tr>
<tr>
<td>27-29 November 2012</td>
<td>Amsterdam NL</td>
<td>Intermodal Europe 2012, BESTFACT presented by EIA in EIA stand at exhibition</td>
</tr>
<tr>
<td>28-29 November 2012</td>
<td>Budapest HU</td>
<td>Translog Connect 2012</td>
</tr>
<tr>
<td>March 2013</td>
<td>Gothenburg, SE</td>
<td>Urban Freight WCTR SIG workshop</td>
</tr>
<tr>
<td>14-15 March 2013</td>
<td>Vienna, AT</td>
<td>29th Logistics Dialogue 2013 BVL (Austrian Logistics Association)</td>
</tr>
<tr>
<td>20-21 March 2013</td>
<td>Darmstadt, DE</td>
<td>1st Interdisciplinary Conference on Production, Logistics, and Transport (DYNAMO PLV)</td>
</tr>
<tr>
<td>4 April 2013</td>
<td>Vilnius, LT</td>
<td>East-West Transport Corridor Association (EWTCA) Council Meeting</td>
</tr>
<tr>
<td>10-12 April 2013</td>
<td>Gothenburg, SE</td>
<td>Urban Freight WCTR SIG Urban Freight Workshop at the Sustainable Urban Transport Conference</td>
</tr>
<tr>
<td>23-24 May 2013</td>
<td>Chicago, USA</td>
<td>Meeting of the Technical Committee 2.3 Freight Transport and Co-Modality of the World Road Association</td>
</tr>
<tr>
<td>28-29 May 2013</td>
<td>Odessa, UA</td>
<td>East-West Transport Corridor Association (EWTCA) Odessa FORUM 2013</td>
</tr>
<tr>
<td>30-31 May 2013</td>
<td>Washington D.C., USA</td>
<td>City Logistics Research: A Trans-Atlantic Perspective. EU-US Transportation Research Symposium.</td>
</tr>
<tr>
<td>04-07 June 2013</td>
<td>Munich, DE</td>
<td>Transport Logistics 2013</td>
</tr>
<tr>
<td>Date</td>
<td>Location</td>
<td>Event Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>11 June 2013</td>
<td>Vienna, AT</td>
<td>96th Traffic Committee of the Austrian Association of Cities and Towns: Efficient Freight Transport in Urban Areas</td>
</tr>
<tr>
<td>13 June 2013</td>
<td>Linz, AT</td>
<td>Association of Industrial Sidings: Discussion on Co-Mobility and Green Logistics</td>
</tr>
<tr>
<td>14 June 2013</td>
<td>Vienna, AT</td>
<td>BVL (Austrian Logistics Association) Plenum Meeting on Sustainable Logistics: Efficient Freight Transport in Urban Areas</td>
</tr>
<tr>
<td>18-19 June 2013</td>
<td>Vilnius, LT</td>
<td>Cluster Workshops, East-West Corridor Info. Exchange</td>
</tr>
<tr>
<td>17-19 June 2013</td>
<td>Bali, ID</td>
<td>8th International Conference on City Logistics</td>
</tr>
<tr>
<td>27 June 2013</td>
<td>Berlin, DE</td>
<td>Suitable Electromobility for Commercial Transport (SELECT) Stakeholder Forum Workshop</td>
</tr>
<tr>
<td>11-15 July 2013</td>
<td>Rio de Janeiro, Brazil</td>
<td>World Conference of Transportation Research</td>
</tr>
<tr>
<td>15-18 July 2013</td>
<td>Rio de Janeiro, BR</td>
<td>13th World Conference on Transport Research</td>
</tr>
<tr>
<td>4-6 September 2013</td>
<td>Birmingham, UK</td>
<td>Logistics Research Network Conference</td>
</tr>
<tr>
<td>12 September 2013</td>
<td>Berlin, DE</td>
<td>Conference on Urban Goods</td>
</tr>
<tr>
<td>19-20 September 2013</td>
<td>Vienna, A</td>
<td>BESTFACT international workshop on Co-modality &amp; Green Logistics</td>
</tr>
<tr>
<td>26-28 September 2013</td>
<td>Xi’an, CN</td>
<td>Euro Asia Economic Forum 2013: From Collaboration to Mutual Booming</td>
</tr>
<tr>
<td>9 October 2013</td>
<td>Vienna, AT</td>
<td>WKÖ/Austrian Chamber of Commerce: Discussion on Urban Freight Topics</td>
</tr>
<tr>
<td>5-6 November 2013</td>
<td>Bologna, IT</td>
<td>SMILE 1st Scientific and Technical Workshop</td>
</tr>
<tr>
<td>7 November 2013</td>
<td>Geneva, CH</td>
<td>International Road Transport Union (IRU) Goods Transport Council</td>
</tr>
<tr>
<td>8-9 November 2013</td>
<td>Brussels, BE</td>
<td>EU Logistics Conference 2013: Logistics in 2030 – Challenges and Way Forward</td>
</tr>
<tr>
<td>14 November 2013</td>
<td>Vienna, AT</td>
<td>CombiNet (Association for Advanced Goods’ Transport) Congress: Clever – Smart – Combined</td>
</tr>
<tr>
<td>28 November 2013</td>
<td>Zaragoza, ES</td>
<td>LOGISTOP Assembly 2013: New Challenges for Logistics Innovation in Europe</td>
</tr>
<tr>
<td>27-29 November 2013</td>
<td>Vienna, AT</td>
<td>Smart Cities Week 2013: Workshop on Smart Urban Logistics</td>
</tr>
<tr>
<td>3 December 2013</td>
<td>Vilnius, LT</td>
<td>East West Transport Corridor Association (EWTCA) Council Meeting</td>
</tr>
<tr>
<td>4-5 December 2013</td>
<td>Brussels, BE</td>
<td>2013 Annual POLIS Conference: European Cities and Regions for a more Sustainable Mobility</td>
</tr>
<tr>
<td>20 December 2013</td>
<td>Karlsruhe, DE</td>
<td>LaMilo Project Partnership Meeting</td>
</tr>
<tr>
<td>15 April 2014</td>
<td>Paris, F</td>
<td>TRA session on BESTFACT</td>
</tr>
<tr>
<td>05-06 May 2014</td>
<td>Karlsruhe, DE</td>
<td>Fourth International Convention on Harbour Technology and Logistics</td>
</tr>
<tr>
<td>21 May 2014</td>
<td>Helsinki, FI</td>
<td>LOGY seminar, Finnish Association of Purchasing and Logistics, BESTFACT presented by VTT</td>
</tr>
<tr>
<td>June 2014</td>
<td>Newcastle upon Tyne, UK</td>
<td>Urban Logistics Workshop</td>
</tr>
<tr>
<td>Date</td>
<td>Location</td>
<td>Event Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>6-19 June 2014</td>
<td>Helsinki, FI</td>
<td>10th ITS European Congress, BESTFACT presented by VTT and University of Westminster 'Evaluation method for freight logistics innovations'</td>
</tr>
<tr>
<td>12 June 2014</td>
<td>Newcastle, UK</td>
<td>Urban Freight Conference</td>
</tr>
<tr>
<td>16 September 2014</td>
<td>Luxembourg</td>
<td>Urban Logistics Workshop</td>
</tr>
<tr>
<td>22 October 2014</td>
<td>Brussels, BE</td>
<td>ENCLOSE Conference 'Planning energy efficient city logistics policies and measures in small and mid-sized European cities', BESTFACT presented by Newcastle University</td>
</tr>
<tr>
<td>12 November 2014</td>
<td>Utrecht, NL</td>
<td>DIN initiative on smart cities</td>
</tr>
<tr>
<td>05 – 07th November 2014</td>
<td>Dortmund</td>
<td>Nationaal verkeerskundcongres 2014: De elektrische (bak)fiets als kans voor een duurzame onderneming en een schone stedelijke omgeving</td>
</tr>
<tr>
<td>4 December 2014</td>
<td>Milano, IT</td>
<td>Sustainable and efficient supply strategies and practices for food and consumer goods, Milano</td>
</tr>
<tr>
<td>10 December 2014</td>
<td>Milano, IT</td>
<td>SDIL &quot;Smart Data Innovation Lab data innovation community smart cities&quot;</td>
</tr>
<tr>
<td>12 December 2014</td>
<td>Luxembourg</td>
<td>Lamilo Workshop</td>
</tr>
<tr>
<td>3 June 2015</td>
<td>Berlin, DE</td>
<td>Smart Urban Freight Conference 2015 &amp; SMARTFUSION Final Event, in association with BESTFACT</td>
</tr>
<tr>
<td>11-12 June 2015</td>
<td>Barcelona, E</td>
<td>E-Freight - Secure information based collaboration</td>
</tr>
<tr>
<td>28-29 September 2015</td>
<td>Finland</td>
<td>Global Forum; BESTFACT presented by ESC at urban dimension event</td>
</tr>
<tr>
<td>8-9 October 2015</td>
<td>Rotterdam, NL</td>
<td>BESTFACT Joint Cluster Workshop on Synchro-modal Best Practices</td>
</tr>
<tr>
<td>9-11 November 2015</td>
<td>Antwerpen, BE</td>
<td>Transport &amp; Logistics, ESC presented BESTFACT</td>
</tr>
<tr>
<td>17-19 November 2015</td>
<td>Hamburg, DE</td>
<td>Intermodal Europe; BESTFACT presented by ESC in two panels ‘Shippers Forum’ &amp; ‘Alliances'</td>
</tr>
</tbody>
</table>