COMBINED DELIVERABLE D.T1.5.1–4: PART 1/4

Report on pilot area selection and mobility related challenges, low-carbon mobility scenarios, stakeholder involvement and action plan development for the FUA Leipzig

Project index number and acronym	CE1100 LOW-CARB
Lead partner	PP1 - Leipzig Transport Company (LVB)
Deliverable number and title	D.T1.5.1–4, Part 1/4: Report on pilot area selection and mobility related challenges, low-carbon mobility scenarios, stakeholder involvement and action plan development for the FUA Leipzig
Responsible partner(s) (PP name and number)	PP2 – Central German Transport Association
Project website	www.interreg-central.eu/low-carb
Delivery date	10/2020
Status	Final
Dissemination level	Project

Document history of revisions			
Date	**Name**	**Action (e.g.**	**Status**
04/2020	Ana-Maria Baston, Rupprecht Consult	Structure and brief content description	Template
09/2020	Robert Schillke, MDV	Input to template	Draft
10/2020	Ana-Maria Baston, Rupprecht Consult	Preparation of final draft	Final draft
10/2020	Wolfgang Backhaus, Rupprecht Consult	Quality review and finalisation	Final

Executive Summary

The current document reports on the Action Plans for integrated low-carbon public transport services and on the process conducted towards the development of these plans in pilot areas Leipzig, Brno, Koprivnica and Szeged. The report covers four different steps part of the Action Plan development, which were initially proposed as four separate reports for each of the four FUAs (Leipzig, Brno, Koprivnica and Szeged). The separate deliverables are listed as follows:

1. **D.T1.5.1** Report on **pilot area selection and analysis of mobility related challenges** for public transport: Identification of pilot areas according to mobility related challenges for PT in FUAs Leipzig, Brno, Koprivnica and Szeged. Planning of stakeholder involvement, low-carbon performance objectives, expected outcomes and goals, based on LOW-CARB's strategies (section 2).
2. **D.T1.5.2 Low-carbon mobility scenarios** for pilot areas in functional urban areas: Collection of relevant data about mobility patterns, transport infrastructure and PT services supply in pilot areas to develop low-carbon mobility scenarios for these pilot areas. Szeged will focus on companies as the main target group of the action plan (section 3).
3. **D.T1.5.3** Report on **stakeholder dialogue** and prioritisation of low-carbon mobility measures in pilot areas: Report on stakeholder and citizens/companies' involvement (at least two workshops or events per pilot area) to create a common ground for integrated mobility planning, and feedback/prioritisation of presented scenarios and planned low-carbon mobility measures for pilot areas (section 4).
4. **D.T1.5.4** Definition of **"packages" of low-carbon mobility measures related to public transport**, based on stakeholder feedback and on the overall assessment of economic and environmental impacts. The action plans will include timeline, financing plans and responsibilities and lay at the basis of pilot actions implemented in WP T3 (section 5).

The decision to compile the four steps in the Action Plan development was based on the real situation in the respective FUAs showning that the steps are actually strongly linked one to another and the process not always follows the proposed structure. In addition, each FUA has its own characteristics and framework, thus it was decided to split the deliverable D.T1.5.1-4 into four parts, each referring to one of the respective FUAs.

The current part of D.T1.5.1-4 refers to FUA Leipzig Action Plan (Part1/4).

NUTS region(s) concerned by the strategy (relevant NUTS level)

1. **Functional urban area of Leipzig**

Country (NUTS 0)	DE
Region (NUTS 2)	DED5, Leipzig
Sub-region (NUTS 3)	DED52, Leipzig

1. Introduction

The present report includes the characteristics of the pilot area part of FUA Leipzig, its issues and challenges related to mobility (corresponding to D.T1.5.1), development of low-carbon mobility scenarios for the pilot area (corresponding to D.T1.5.2), discussions around ideas, measures and prioritisation of measures together with the most relevant stakeholders at the FUA level (corresponding to D.T1.5.3), and finally the development of an action plan comprising packages of measures related to public transport improvement in the pilot area, time-line for implementation, budget, responsibilities and any challenges or risks related to implementation (D.T1.5.4).

2. Pilot area selection and analysis of mobility related challenges for public transport

✓ Description of the pilot area, mobility challenges in relation to public transport, goals and next steps towards action plan development

2.1 Description of the pilot area

The Leipzig pilot area relate to the FUA of Northern Leipzig with their big companies and industrial zones. The spatial redistribution of Leipzig's industry from sites within the compact city to the periphery along the northern motorway A14 was triggered by the successful settlement of big corporations such as Porsche, BMW, DHL (with hub and freight terminal) and Amazon and their smaller suppliers (see Figure 1). This development initiated a new flow of traffic with a dynamic perspective. Both core regions Güterverkehrszentrum (GVZ with Porsche) and Industriepark Nord (IPN with BMW) span about 50km² and feature about 35,000 jobs. This region is embedded in world-wide production and delivery chains with 24 hours/6-days-a-week/3-shift-regimes. Several studies indicate a continuous growth in numbers of job up to 70,000 jobs. Besides being Leipzig's primary site of industrial production, the extended area provides home for approx. 2300 Leipzig citizens in the suburbs of Seehausen, Göbschelwitz, Hohenheida and Gottscheina. The highways B2/B184, S1, S9 connect directly to the national motorway grid in all directions by in total 5 well placed interchanges.

In Northern industrial area around 34.000 jobs already exist and is expected that this massive increase (min. 25%) until 2030(see also Figure 2). For that reason, the area is one of the most important economic areas in Saxony. What already exists are informal planning instruments (e.g. Nordraumkonzept 2025+) for the further development perspective of this area. A close cooperation with the stakeholders in the functional urban area (FUA) have been realised for this. Here in different forums the City of Leipzig and the Municipalities in the FUA are involved. In other forums more led by the economic departments the companies are involved directly. For transport related aspects a mix of actors are involved. In 2018 a study for motorized-individual-transport was established on behalf of Saxony ministry for economic affairs, labour and transport. The traffic and situation of (MIT) was analyzed esp. for two industrial zones GVZ and Industriepark Nord. It was recognized MIT situation will become critical in the next years. One recommendation of these analysis is to increase the Public transport (PT) in this area, which also follows the City of Leipzig mobility strategy to increase PT from 18% to 23% until year 2030 (Mobilitätsszenarien 2030).In this process also transport association as MDV, LVB (LOW-CARB partners) companies (DHL, Airport companies,) and cities and Municipalities have been involved. These different forums will be used by Leipzig LOW-CARB partners for development a joint action plan in the FUA Northern Leipzig. The development of the area initiated a new flow of traffic with a dynamic perspective.

2.2 Mobility challenges in relation to public transport

A preliminary analysis revealed a sound basic public transport (PT) offer within the pilot area, the northern industrial area of Leipzig (Figures 2 and 4). This area is accessible via three main rapid transit lines (S-Bahn) providing direct connections to the two major cities of Leipzig, and Halle (Saale) and by a single change-over to the entire central German S-Bahn network serving more than 800km. However, the facto-

ries and industrial sites are located one to two kilometres apart from the corresponding S-Bahn station, or in the case of BMW even further (approx. five kilometres). This distance is covered by local feeder busses operating frequently while change of shifts. The Modal shift is a little bit about city average with 15% PT (18% average) for Pedestrian and Cycling lower (8%, 17% average) because of the distances the biggest part in Modal Split is for MIT (74%, 40% average). The Modal split esp. of PT becomes even worse, if you have a more detailed look in the different areas. Esp in the high industrial areas with Porsche and BMW the MIT part increase up to 78% and a decrease of PT proportion to 9%. This is also reflected also in the low passenger numbers compared to similar station in the City of Leipzig esp. for the Bus stations which mostly are the end of the travel chain. The reason for this can be identified in the transport system itself but also in the specific requirements of the companies.

The situation of remote industrial sites (in relation to the rapid transit system) as traffic sources, together with the width of the spatial spreading and the existing residential areas lead to a complex bus feeder system with lines changing routes multiple times and different operation frequencies during the day and week to suit the industry needs. In addition to the complex bus network commuters need to change multiple times services to reach their final destination. The challenge is here two folded. On the one hand there exists a complex bus system as feeder for main local train system (S-Bahn) and on the other hand situation of the companies themselves. Peak-capacities in central shift times and low demand between shift times, variable shift-times of same but also the different companies, the 24 hours/6 day weeks including night-shifts are the main challenges for a more static system as the public transport system. Together with the first-class access to the regional and national road network these are critical incentives for excessive usage of individual motorised traffic, reflecting in a low usage of the PT services.

2.3. Objectives

The overall goal of the Action Plan process was to increase the Modal Split of PT similar to city level from 15% now up to 23% by year 2030 as defined in the sustainable scenario (Nachhaltigkeitsszenario). To reach this ambitious aim, two different activities were pursued in LOW-CARB: 1. An action plan to improve the public transport situation in the area with a short, middle and long-time perspective was developed. 2. Mobility management measures, such as information provision and awareness-raising about existing PT offers and their advantages were communicated, also with support of the pilot action (see also deliverable D.T3.1.1 Report on pilot action 1 preparation phase).

2.4. Steps towards action plan development

The defined steps for development of action plan were:

- Definition of single actions for each zone of the Northern industrial area.
- Combine actions to “packages” to allow an integrated PT system
- Combine action packages with scenarios to elaborate alternatives

The exact procedure scenario development was discussed in February 2019 with LOW-CARB partners representatives of the City of Leipzig and Public transport authority for railway services (ZVNL). An external expert financed outside the LOW-Carb project developed the scenarios afterwards. They were presented to further stakeholders together with actions mid of 2019.

3. Development of scenarios for low-carbon mobility in pilot areas of the FUA Leipzig

The process of developing scenarios was combined with developing a vision for the Northern industrial area. The aim was here to get a quantitative overview of the future situation and a legitimation for the action plan, through clear quantitative prognosis of further development of the workplace situation and expected numbers of employees until 2030, to be able to develop adequate offers of environmentally friendly transport modes to reach the political aims of the city.

The framework mainly set by local steering group consist of LOW-CARB partners LVB, MDV, and City of Leipzig, but also reflected by stakeholders from the city, ZVNL and Northern District of Leipzig during a meeting on 27.03.2019. For quantitative scenarios and analysis an external expert was responsible, who made these analysis based on the VISUM model of the City of Leipzig. Also, the current situation of PT and environmentally friendly transport modes were analyzed. This was the basis for the scenarios, which were mainly discussed in March 2019.

Thus, two different levels were considered for the creation of a vision for the industrial northern area:

a. **The number of employees:**

The relevant factor for transport planning in the area is the number of employees. This is the basis to calculate the necessary capacities in the transport system. This directly correlate with the extension of production area and new settlements of companies. The analysis shows different development steps based on potential areas to be developed until 2030. The participants decided to define a span from increasing number of employees from 60% until 100% based on the actual status. The span result of an estimation that all potential areas have a number of employees by 25 persons per hectare. The 100% is just a maximum estimation of simple double the amount, which might be realistic follow interviews with department of economics.

b. **Modal-Split Scenarios:**

The partners defined a scenario with the name of “Umweltverbundszenario”, which describes the vision for the industrial northern area. The main characteristic is a maximum increase of environmentally friendly transport, with no additional increase of MIT from the City population and just a constant development of MIT commuting from the FUA but with an increase part of ride pooling. The pedestrian part remains the same, but the increase results mainly from PT and cycling.

The scenario will be flanked with two alternative scenarios. The first one is a forward projection, which shows what happened if nothing will be done (do-nothing-scenario). The second one includes a moderate increase of environmentally friendly transport result in a decrease of -10% MIT (business as usual scenario). Based on this framework IVAS modelled the results for Modal Split and PT.

The results were very interesting. Based on a minimum increase of employees until year 2030 of 63% percent the scenarios result in different effects have to be consider (see Figure 3.). In the ‘do-nothing scenario’ additional 15.000 travelling by day with MIT is expected, which leads to a collapse of the road traffic system. In the ‘business-as-usual scenario’ additional 13.600 Persons and in the ‘Umweltverbundszenario’ 15.000 use daily PT. Depending on area this means an increase of PT from 100% until 700% from the status quo today.

This result in a need of high increased of capacity of trains and infrastructure. The amount of additional trains varies from 1 to 12 trains in peak hours.

The following recommendation made through external experts as result from the scenarios.

- Successive increase of offers of bus system
- Strengthen train connection with new stops and increase capacity of system

- Strengthen inter-modality by improving infrastructure for walking and cycling, bike-sharing and P&R, B&R hubs

The recommendation and the numbers lead to the steering group's conclusion that the actions that are to be included in the Action Plan have to be ambitious, and that a variety of mobility offers are needed in order to reach the strategic aims of the project and the political goals regarding modal split targets in Leipzig.

It also has shown that the 'do-nothing scenario' may lead to a collapse of the transport system. This message was used as *worst-case* vision to create pressure and convince stakeholders.

4. Report on stakeholder involvement process and priorisation of low-carbon mobility measures in pilot areas

- ✓ How and against which background were the priorities set?
- ✓ What was the rationalle behind choosing these stakeholders?

The development and prioritization of actions have been realized in a step-by-step approach. In late 2018, the project team from LVB, MDV, and City of Leipzig developed a set of around 90 draft actions, which were presented to project leaders in three meetings during 2019. The results of this internal consulting process were presented in a final internal high-level workshop with heads of partner institutions, external experts and project management of LOW-CARB on 20th August 2019. In this workshop, the partners discussed and prioritized the actions according to their effectiveness to enhance PT services and the environmental-friendly transport modes.

In preparation of this workshop the most important stakeholders from the region - ZVNL (associated Partner) and the District of Northern Saxony - have been consulted to provide professional input to the ideas for actions.

Further stakeholders from the FUA have been involved in the training workshop on 10th September include, including additional departments from the City of Leipzig (department for economic affairs department for environment, department for city planning, department of traffic and road construction), City of Schkeuditz, and PT of Northern Saxony. The participants widely accepted the actions and will support their implementation. They wish a further dialogue and involvement in the development of actions and esp. when it comes to implementation.

After having the support from the administration and political level, the next step was to involve and convince the companies. A first step has been realized already in first workshop on 1st August 2018 with 11 companies from the Northern industrial area, dealt with current situation, actual needs and information of the offers of today. Continuous contact to companies in European Mobility Week and bilateral consultation establish a good working relationship during 2018 and 2019. Other two meetings with stakeholders were organized on 10 September and on 29 October 2019.

This background was used by the Leipzig partners in order to organise a stakeholder meeting with companies on 6th November 2019, where 9 companies participated. The companies embraced with enthusiasm ideas starting from new bus lines, new train stops, to micro mobility hubs with the aim to improve mobility system for their companies and their employees. The discussion had shown that the actions met the specific needs of companies dealing with changing shift times, need for direct connections and high-quality transport systems. At the end of the day it was clear that there is an urgent need to imple-

ment the actions in order to really improve the system and go beyond just concepts. The companies showed willingness to support the process: 'What can we do to make these actions happen?"

After having the support from the public administration and from companies, further involvement of additional stakeholders from FUA, politicians from regional and national level, and further companies was necessary. Therefore, a governance structure will be developed at the beginning of 2020 to ensure further cooperation beyond LOW-CARB project, and to ensure measure implementation. Additional necessary informal and formal resolutions are currently under preparation.

5.1. Introduction

The core part of the Action Plan relates to the policies and measures that will allow reaching the objectives that have been set in steps 1 to 3. The action plan elaboration is only one step in the overall process, and it should not be considered as an objective in itself, but rather as a tool that allows to:

- Outline how the pilot area will look like in the future, in terms of economic development leading to a more dynamic and challenging traffic, and of sustainable mobility services;
- Analyse current action in the field of low-carbon mobility and build a systematic action plan starting from the existing situation but with a view to an ambitious vision
- Communicate actively and systematically with the stakeholders at the FUA level
- Translate the pilot area vision into practical actions assigning deadlines and a budget for each of them
- Serve as a reference during the implementation and monitoring process.

Also, it was clear that the work does not finish after drafting the Action Plan and after its formal approval. On the contrary, this moment should be the start of the concrete work of putting the planned actions into reality. A clear and well-structured Action Plan is essential for this (i.e. all actions have been carefully designed and described properly, with timing, budget, sources of financing and responsibilities, etc.)

5.2. Formal approval of measures in the Action Plan

The masterplan/action plan is an informal planning document. A real formal agreement is not realistic and foreseen, but there will be an information of city council planned for December 2020 to have the mandate to go in the implementation of action plan. Through involvement of stakeholder the political

support and engagement by relevant decision makers is expressed in applications for implementation of the action plan and in statements from cities and district and companies in welcome speech of Mayor of city of Leipzig in communication brochure.

5.3. Action Plan for low-carbon public transport services in pilot area

The partners developed a set of 86 final agreed actions for the Action Plan. This includes four categories of actions:

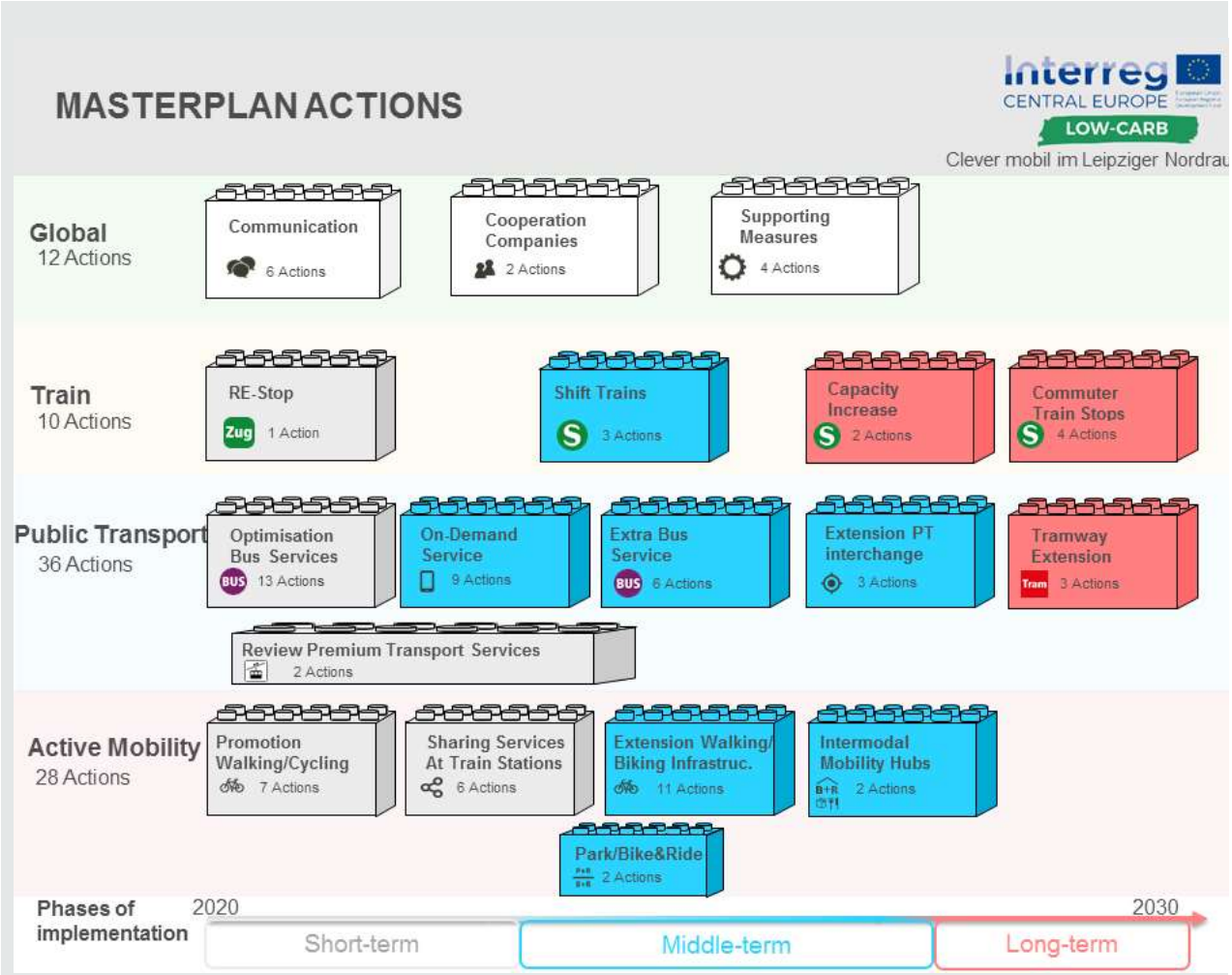
- global actions: e.g. company-based mobility management, ensure connections, communication, coordination,
- Train: e.g. new train stops, additional trains for shift times, new rail infrastructure to increase capacity and flexibility
- Public Transport: e.g. doubling of actual PT-bus offers, on-demand services, company-based bus services, Tramway extensions
- Active mobility: e.g. new walking and cycling infrastructure, intermodal mobility hubs, Park/bike and Ride

The estimated amount of investment needed is around 175 Mio €, without the new train stops (it is not realistically predictable). This is just a rough estimation. Details will show concrete investment studies for each action.

Additional: operational cost of running the PT-system and the new offers will be several million euros each year.

The implementation period of actions considered three different timeframes from short-term (2021 - 2023), middle-term (2024-2028), and long-term (2029 -2030+)

Here it is to recognize that planning of actions also in a long-term perspective must start as soon as possible to realize them until 2030



In the table below you find some examples in detail to show the range of activities from short to long-term perspectives.

Examples from the Leipzig Action Plan

Measure	Description of measure	Responsibility	Activities within a measure	Implementation period	Resources needed	Cost	Stakeholder-involvement
Coordination unit	*Coordination team to coordinate and manage the implementation of all actions*	*LVB, MDV, City of Leipzig*	*Build up working and decision-making process* *Coordinate work in the fields of marketing, stakeholder-involvement, implementation of action, financing*	*Year 1: 3 Staff members* *upcoming years: up to 12 Staff members*	*Staff for marketing, management, financing, company-based mobility management*	*Year one: 210T €* *Upcoming years: up to 1. Mio € each year*	*All stakeholder from FUA and companies will be involved*

New busline	*New fast busline from airport to GVZ to inner city Gohlis*	*LVB, City of Leipzig*	detail planning of line, authorisation of line,	2021-2023	PT-planner, driver, buses	Operation cost each year: 1. Mio €	City of Leipzig, LVB, District Norther Saxony, Airport Halle-Leipzig
Mobility Hub	*A multimodal mobility hub established including parking and sharing for cycling of around 500 bicycles, services e.g. paket storing, food, drinks*	*City of Leipzig, LVB,*	Year 1 and 2: business model, planning of dimension	2021-2022	external experts, Planner,	50 T€	City of Leipzig, MDV, companies, bike sharing providers, service providers
			Feasibility and investment studies	2022-2023	external experts, Planner,	100T€	
			Build and implementation of Mobility Hub	2024-2026	Planners, architects, construction firms	1 Mio €	
Tramline extension	*The Tramline 16 will be extended directly from actual fair directly to the BMW central building.*	*LVB, City of Leipzig*	Planning of tramline extension	2022-2026	PT-Planners, infrastructure planers	9,2 Mio €	City of Leipzig, MDV, companies, general public esp. inhabitants
			Construction of tramline extension	2027-2031	PT-Planners, infrastructure planers, construction firms	61,5 Mio €	
			Operation of Tramline	yearly from 2032	driver, vehicles	around operation-cost800 T€ each year	

5.4. What measures are planned or most likely to be realized?

In general, all actions fulfil their full potential, if they are combined. So, you need all aspects to realize the aims of a high modal split change to environmental transport.

The expensive and long-term actions will have in general a higher impact then smaller actions, which, on the other hand, can be realized much earlier and faster, such as, e.g., cycling, infrastructure or new bus lines. But these actions are also important to lead to a change of mindset for the actual and new employees towards use of environmentally friendly transport.

It has also been considered that soft measures of e.g. company-based mobility and target group-oriented marketing will increase the effects. So exact estimations are not realistic.

The combination of actions is important, not just focusing on Public transport, instead offer further opportunities for commuters and their combination of modes of transport in sense of multi-and esp. inter-modality.

It is estimated that all actions together will reach a modal split increase from actual around 20% to up to 44% for environmentally friendly transport, which is around 40,000t of Co2 savings per year.

It can be stated that there is a strong commitment from the leadership steering committee in LVB, MDV and City of Leipzig to implement the measures defined in the Action Plan. Currently, national and ERDF funding programme proposals to support decarbonisation and to reinforce public transport are submitted for most of the defined measures. Further very close cooperation between the three organisations is envisaged to implement the Action Plan measures, including further entangling of actors and responsibilities with focus on optimisation of responsibilities in the planning area to better comply with concrete implementation requirements.

5.5. Monitoring & evaluation

Monitoring and evaluation will be part of work from coordination unit and within regular standard monitoring work from the city with e.g. bike counting, traffic counting instruments. According to milestones monitoring and planning tools, as e.g. PT-Visum, will be used. Also, further tools like extended features of pilot action Accessibility map, for planning will be considered.

Additionally, in cooperation with companies and with regard to company-based mobility, acceptance and use of implemented offers and measures will be investigated by coordination unit. Therefore, questionnaires will be prepared and analysed. Also standardised studies will be used e.g. (SrV).

5.6. Risks associated to planning and implementation of measures

The selection of actions and measures should also be based on the careful estimation of risks associated with their implementation (especially when significant investments are planned):

- How likely is it that an action fails or does not bring the expected results?
- What will be the impact on the objectives?
- And what are the possible mitigation measures?

There are different types of risks that can hinder the smooth implementation of measures:

- project-related risks (e.g. delays in tendering and selection procedures, or cost overrun)
- administrative risks (e.g. inadequate approved project budgets, delays in obtaining permissions, changes in government regulations and laws)
- technical risks (e.g. inadequate design or technical specifications, higher than expected operation costs)
- contractor-related risks (e.g. inadequate estimates, financial difficulties, delays)
- market-related risks (e.g. pay cuts, shortages of technical personnel, shortage of materials or equipment).

In general, the more complex and expensive actions are the risk related to implementation of actions. The biggest unsure is on financing esp. through new COVID 19 situation. To mitigate the risk, the established working structure will also work on financing and funding acquisition. The task is to acquire funding from European, national and regional funds. To maintain operation and profitability, the demand of users is one crucial point. A lot of effort will put in a good marketing and company-based mobility management to mostly mitigate the risks. This can lead to an adjusting and a new prioritizing of actions. Here, a specific role is attributed to the governance strategy. Decisions will be made together with all stakeholders including the companies and joint financing from private sector is foreseen.

The actions 1-3 are most realistic. Coordination unit will work, and financing is already acquired for the next year. The new bus line and the mobility hub are planned for preparing and realisation will be realised with support of national funding opportunities. Application is currently in development.

Nevertheless esp. for the mobility hub, a risk of having no adequate business model and a lack of service providers to operate the hub exist. To mitigate the risk, service providers will be invited in an early stage to the process. Additionally, it is foreseen to have different strategies of concrete operation and modules of the hub.

The tramline extension is highly apprciated by companies, their implementation depends on feasibility study and investment preparation. Also, technical risks that the suggested way of line will not feasible. Therefore, different alternatives and corridors have been suggested in the action plan.

6. Conclusions

Development of action plans for implementation of integrated low-carbon public transport services in FUAs Leipzig, Brno, Koprivnica and Szeged was taken up in the framework of LOW-CARB project by following a model structure comprising four different steps:

1. Analysis of mobility related challenges in relation to public transport
2. Development of different low-carbon scenarios and comparison against “do-nothing” and “business-as-usual” scenarios
3. Stakeholder involvement in the identification and prioritisation of low-carbon mobility measures
4. Action Plan elaboration

These four steps that are described in this document are necessary in the process of Action Plan development for low-carbon mobility measures focusing on enhancing public transport services at the FUA level.

Referring to Leipzig’s Action Plan for low-carbon mobility measures, the success factors that were at the basis of developing a realistic Action Plan with real chances for implementation were based on (1) a long-lasting good collaboration culture among the most important stakeholders at the city, FUA and regional levels, (2) the strong interlinkages between the “Mobility Strategy 2030” and political goals for Leipzig and the local development strategies tackling certain pilot areas like the “Nordraum” that is discussed in LOW-CARB project, and (3) the involvement of direct beneficiaries of the actions, representing the companies located in the areas that represent one of the main regional economic drivers (i.e. the large companies like Porsche, BMW or DHL).

The process of developing the masterplan has shown the following results and lessons learned:

- Following the SUMP approach worked well and lead to a high acceptance and willingness for the implementation
- The process and the flexibility in the process allowed looking beyond borders to consider new ways of mobility and innovation.
- An ambitious vision could be created through not focusing direct in the beginning of financial resources

- The process showed that all stakeholders need a willingness for change and a strategic view beyond the transport sector to take in consideration needs of companies and economy
- The close cooperation of all stakeholders and esp. the companies with leading decision-makers will be the key for a successful implementation. The developed governance strategy is the first step to make this reality.

7. **Annexes** (if applicable, images or maps to be provided as annex)

Photo taken during the stakeholder workshop organised on 11.06.2019

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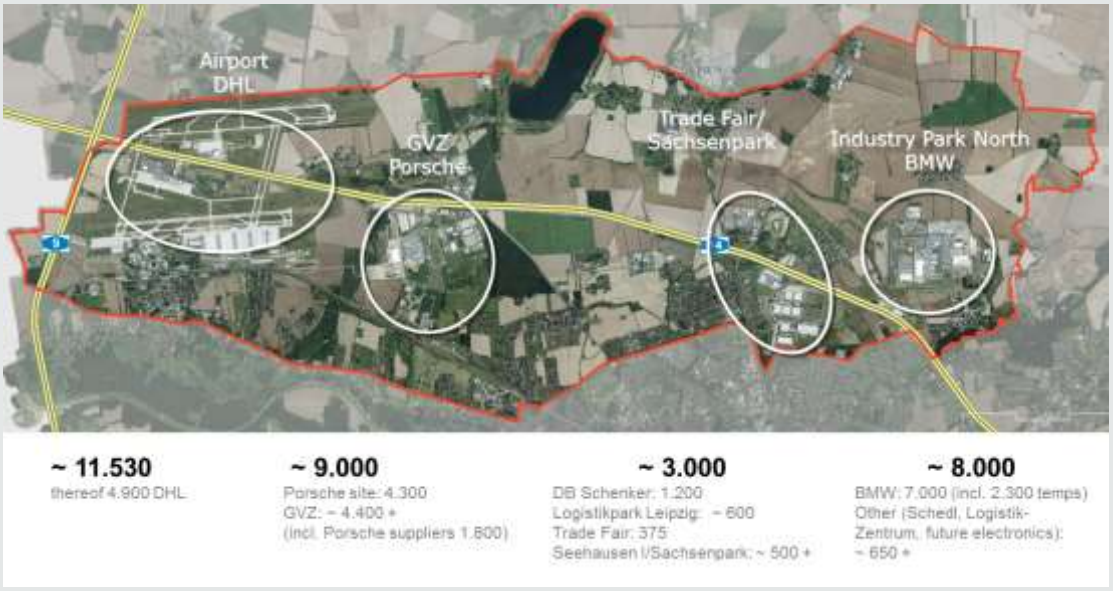

Figure 1: The northern industrial area and its substructure, together with the number of employees. Source: City of Leipzig, 2018

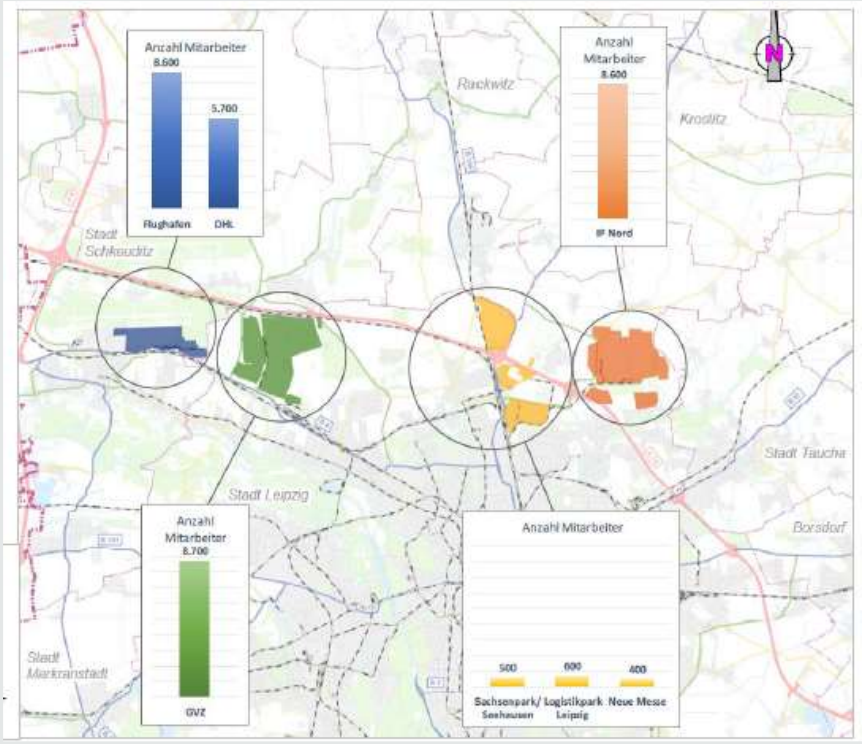

Figure 2 Employees in the Northern area of Leipzig, 2018

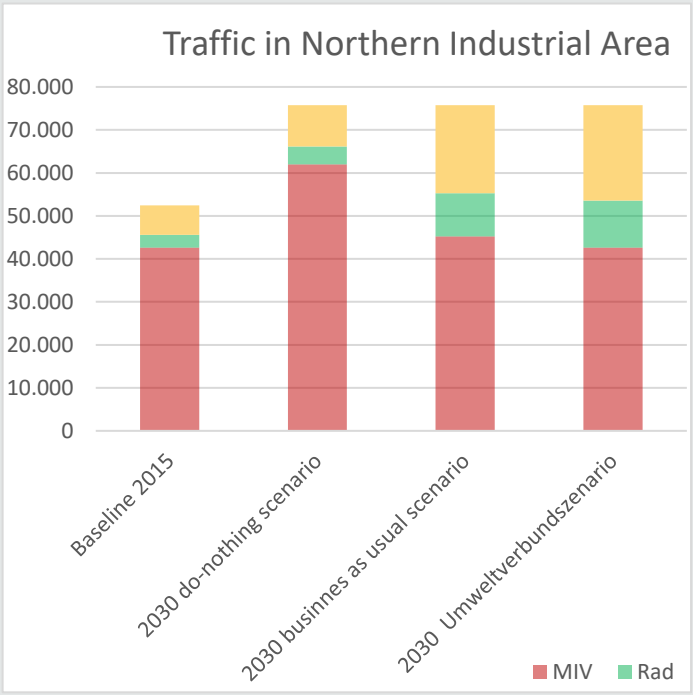

Figure 3 Traffic in Northern Industrial from different scenarios based on increase of employee by 63% until 2030

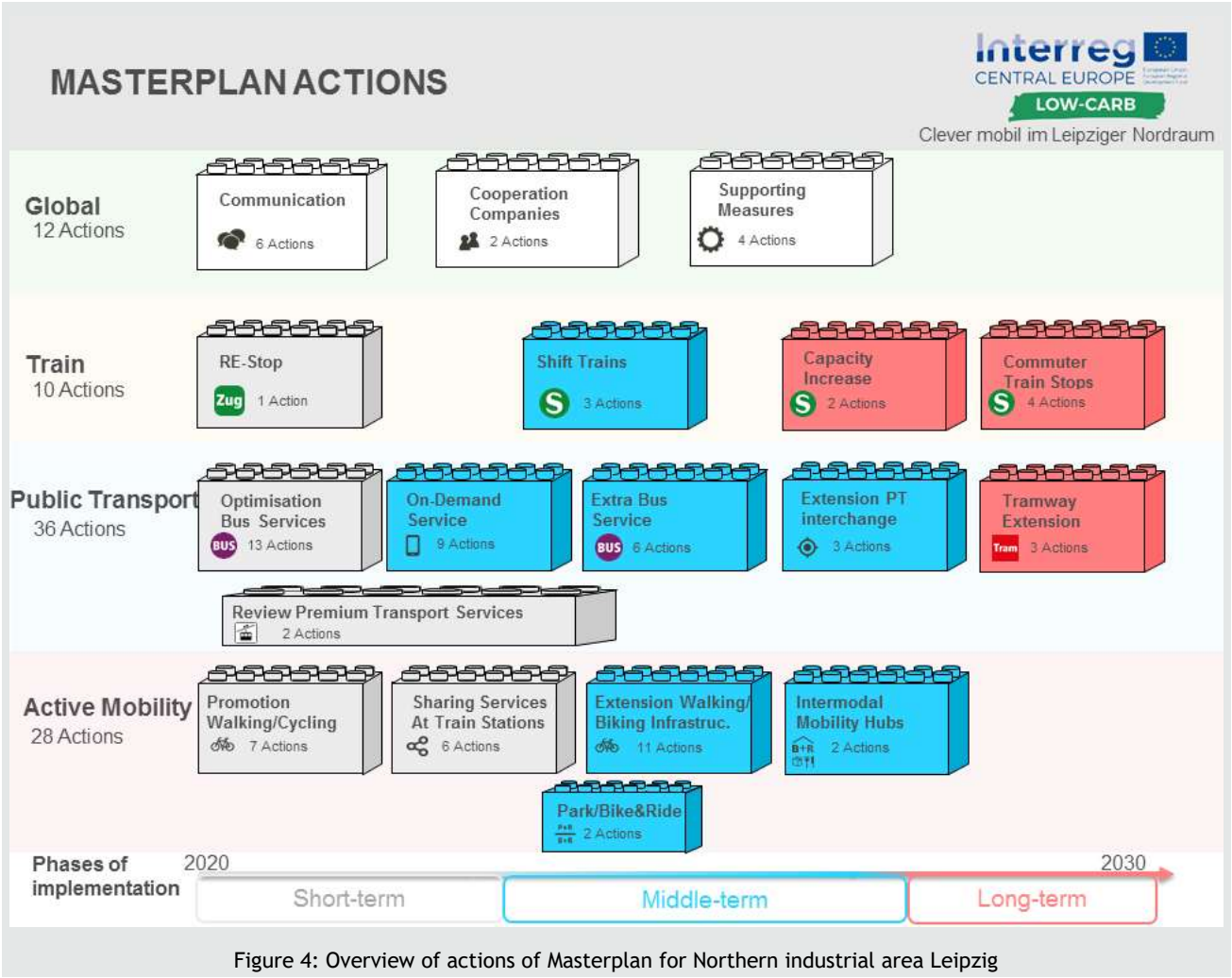

Figure 4: Overview of actions of Masterplan for Northern industrial area Leipzig