Interreg CENTRAL EUROPE
European Union European Regional Development Fund
CORCAP

# ANALYTIC TOOL

for analysing challenges and needs for efficient and environmentally friendly freight transport and identifying potentials of the OEM corridor for regional development

D.T1.1.1

Version 1.3
29 08 2019

KTI Institute for Transport Sciences

# Table of contents

# Introduction

This document describes the methodology for the analysis of challenges and needs for efficient and environmentally friendly freight transport and identifying potentials of the Orient / East-Med corridor for regional development within the CORCAP project. The methodology has the function of an analytic tool, enabling the CORCAP partners to carry out their regional analyses according to a harmonised approach, laying the ground for the implementation of pilot actions and the elaboration of Corridor Capitalisation Plans.

In the result of the analysis problems, needs and challenges related to freight transport and regional development along the corridor regions involved in the CORCAP project will be identified. To use the opportunities of the corridor for regional development it is important to value its potential effects. Additionally, a stakeholders mapping describes the influence of identified stakeholders. This will enable the partners to identify freight transport stakeholders and stakeholders responsible for regional development that will be involved in CORCAP cooperation networks.

The study area of the CORCAP project is the transport corridor Rostock – Berlin - Dresden - Prague - Bratislava - Vienna / Budapest, which is part of the TEN-T and Rail Freight Corridor (RFC) 7 (Orient / East-Med corridor). The project deals with the development of freight transport and regional development along this route to improve environmentally friendly modes of transport, multimodality and logistics, with a particular focus on the new railway line to be built between Dresden and Prague.

# Aim and objectives of the methodology

The analysis should answer the following questions:

- How does the current transport and socio-economic system work in your area? (territorial analysis)
- What are the expectations, plans, challenges and needs at local, regional and transnational level?
- What kind of new solutions and approaches can be applied to tackle challenges identified?
- Who should be involved in the project at local, regional and transnational level?
- Which recommendations for pilot projects can be identified?
- Which relations, synergies and complementarities can be identified between the territorial analysis realised within this project and available transnational analyses?

# Methodology of the territorial analysis

## Current situation analysis (1.)

It is necessary to determine the geographical location, boundaries (natural and administrative) and the natural conditions of the area. It should be described where the OEM corridor passes the region and which catchment areas are located within the region.

### Geographical and socio-economic description of the area, delimitation and definition of its catchment area (1.1.)

Firstly we have to take into account the administrative boundaries. From that point of view the partner-related catchment areas relevant for regional analyses are as follows:

| *CORCAP partner(s)* | *Related catchment area (area of analysis)* |
|---|---|
| **Rostock Port** | Mecklenburg-Vorpommern |
| **SMI** | Sachsen |
| **EGTC & SBO** | Sachsen & Ústecký kraj |
| **Usti Region** | Ústecký kraj |
| **KORDIS JMK** | Jihomoravský kraj |
| **IPP** | Bratislavský kraj, Trnavský kraj, Nitriansky kraj |
| **KTI & GySEV** | Győr-Sopron megye & Burgenland |
| **BSZL & KTI** | Pest megye |

The catchment area depends on the size of the area that the related logistic centres and corridor nodes serve. In Saxony, it includes as well the area of the Metropolitan Region Central Germany.

It should be demonstrated where the OEM corridor can be connected to further TEN-T or RFC corridors within or near the area. It is necessary to consider the results of investigations and analyses, which are already available on transnational level (e.g. analyses and work plans of the Corridor Coordinator). In particular the nodes of the corridor can be capitalised as focus points for a broad spatial development process, including economic, social and regional development on larger scale.

It is necessary to examine the intermodal nodes and terminals in the area. How do they relate to the OEM corridor?

Information on bottlenecks and barriers (administrative, natural, technical [e.g. absence of motorway, airport]) is needed, too.

## Presentation of the transport infrastructure system (1.2.)

An important feature is the description of the infrastructure of the catchment area. Due to the purpose of the project, it is primarily necessary to present the transport infrastructure. All transport modes (road, rail, air, water) need to be presented:

- In case of roads: motorways, highways, urban bypasses, industrial roads;
- in case of railways: characterization of railway lines passing through the area (number of tracks, electrification, speed, total and specified km), which international / domestic routes run through, location of major railway nodes, hubs, marshalling yards, railway connections to major industrial facilities;
- in case of air transport: airports in the area (location, passenger traffic (M passenger/year), freight traffic (M tonne/year), airport classification, hosted aircrafts), area served by air traffic;
- in case of waterborne transport: waterways (natural and artificial), shipping routes, ports, port traffic (M tonnes/year) and the capacity of ships to be hosted.
- The location of multimodal terminals should be marked, and the modes of transhipment should be shown.

In the presentation of the transport modes, it is necessary to indicate which international routes affect the area and which kind and volumes of international traffic takes place (might be observed) there.

## Presentation of major economic activities and the settlement system (1.3.) and freight characteristics (1.4.)

The volume and character of socio-economic activity and industrial production created in the area should be shown in order to prepare an appropriate analysis. Starting point should be the analysis of the

settlement system and of the demographical and social situation in the region, taking into account as well commuting flows, supply and demand for skilled workforce and the structure and strengths of the service sector (e.g. tourism, health and education). Due to the transnational character of the OEM corridor, in particular transnational and cross-border relations should be analysed:

| *Catchment area (area of analysis)* | *Related cross-border relations* |
|---|---|
| **Sachsen & Ústecký kraj** | DE-CZ |
| **Jihomoravský kraj** | CZ-SK, CZ-AT |
| **Bratislavský kraj, Trnavský kraj, Nitriansky kraj** | CZ-SK, SK-AT, HU-SK |
| **Győr-Sopron megye & Burgenland** | HU-AT |

In the field of industrial production it is necessary to determine where the main sources of goods export and destinations for goods import are in the area. To do this, the most relevant companies in the region should be presented. The main areas of economic activity should be explained in order to know the transport needs. In case of logistics companies, please also describe the storage facilities and the distribution points. Additionally, the agriculturural sectors should be analysed besides the industry. Here please also present the companies that have significant share in regional transport volumes (min. 15 % share).

When presenting logistics companies, for exemplary cases their published performance and business activity in freight transport should also be characterised. The volume of goods transport should be presented, and where the goods are transported by the companies and on which routes, and from where the goods arrive and on which routes. The sort of goods and their distribution by transport modes also should be presented (questionnaire for the distributors).

Detailed description of the logistics centres (equipment, loading equipment, transport links) is required. We need to look at the current operating system, the capacity of the loading equipment and the bottlenecks. The form of handling of the goods should be characterised (e.g. container, semi-trailer, lorries, bulk-goods, etc.).

## SWOT analysis (1.5.)

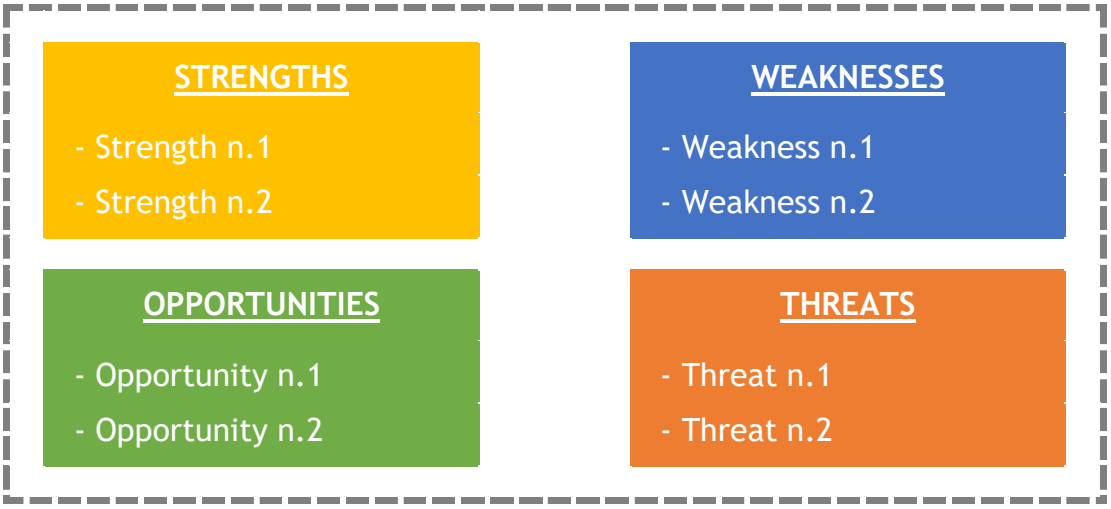
Based on the above, it is necessary to identify the problems and challenges arising from the current situation and the relation to pilot actions realised within the CORCAP project. Once these problems and challenges have been defined, it is possible to understand what is necessary to achieve the targets of pilot actions and which issues should be in the particular focus of Corridor Capitalisation Plans. This will be done by SWOT analysis.

SWOT analysis is a process that identifies **strengths**, **weaknesses**, **opportunities** and **threats** of the analysed activity. It includes factors both internal (the strengths and weaknesses) as well as external (the potential opportunities and threats). Through a SWOT analysis it can be determined what will help to accomplish objectives and what obstacles must be addressed to achieve expected results.

As part of each territorial analysis two SWOT analyses shall be undertaken:

- A SWOT analysis of the system of freight transport in each region (catchment area)
- A SWOT analysis of each pilot action realised within the CORCAP project

## SWOT ANALYSIS




(source: Ex Ante)

### Analysis of freight trends (2.)

Starting from the current situation, trends in freight transport should be outlined. This is important for the preparation of necessary investments. The analysis should take place over two time periods. The shorter by 2030, the longer by 2050. The analysis should include an outlook on the EU's global trends (including EU policy goals) and the needs of individual companies. Companies' needs assessment should cover new needs that may be expected, but also potential discontinuities and disruptions. Are there any major industrial investments foreseen in the area and what are the expectations in the area as a result of potential economic recovery plans / measures?

### Presentation of planned developments (3.)

The next step in the analysis is about the developments already planned for the area. These have already been documented in sectoral plans (e.g. transport and infrastructure plans) and in integrated territorial (spatial) plans and strategies (e.g. regional and national development plans). These documents should be collected and presented, taking into account the level of the document (national / regional / local / transnational). Based on the documents, the main development steps (milestones) and their implementation and implementation schedule should be determined. The pilot projects and pilot investments in the area (both already completed and ongoing) should be presented in detail. The legal character and the binding force of these documents have to be taken to account.

### Spatial aspects of nodes in transnational transport (4.)

Regional urban nodes fulfil specific functions for the OEM corridor; as crossing points for transnational traffic flows their importance for surrounding regions is evident as they take over linking and distributing functions between both local and large-scale traffic flows. On this basis, a systematic profile of needs and requirements for these regional nodes should be created, including (and analysing) three key dimensions:

(1) With reference to the objects of planning it can be stated that the nodes have to improve their infrastructures with respect to better distribution and linking functions. Here improvement in the quality of life and the implementation of sustainable mobility solutions are two key elements, which have to be connected among other things by a better integration of planning processes for transport, regional development and the location of industries and logistics.

(2) In addition to the objects of planning, the planning process for node development itself needs to be considered. This processual dimension becomes evident through the preparation and application of integrated planning and implementation procedures. It has to be taken into account that the responsibilities for different node functions rest with different actors, including the private sector. With this regard, the degree of integration of all relevant actors and the most efficient use of financial resources need to be considered.

(3) Finally, a crucial feature for node development is connected to networking activities, to drive forward the cooperation beyond the own region actively with further inland nodes and nodes located abroad. Possible activities range from the use of existing platforms, plans and strategies up to cross-border projects. Besides more traditional node-relevant topics like urban, regional and transport planning, especially for large urban nodes the importance of networking activities is a must. Node functions arise always from the cooperation of different public and private planning actors in addressing a variety of private, public and semi-public institutions and organizations. Especially in large urban nodes, projects for national and international – cross-border - networking and planning are playing a key role. These networking activities are therefore not only of value for themselves, but also for processing urban, regional and transport planning challenges. This often results in new ideas or solutions that can be found in already proven projects of other nodes and which can be transmitted.

As part of the regional analysis, these three dimensions should be analysed and reflected on.

## Presentation of necessary additional developments (5.)

Based on the above, it will be part of the elaboration of Corridor Capitalisation Plans to identify the areas where additional intervention is required. Based on the description of these interventions, future developments that should be discussed in the framework of the CORCAP project should be presented. Within this, the challenges for the region in terms of future trends need to be considered. This includes e.g.

- defining required development points on a map (with transport links),
- defining dedicated freight routes designed to meet freight needs (e.g. high-speed rail freight routes) and improving connections in the region,
- demonstration of the use of capacity expansion due to developments,
- presentation of the business model of the planned developments,
- priority, timeline and presentation of the planned developments.

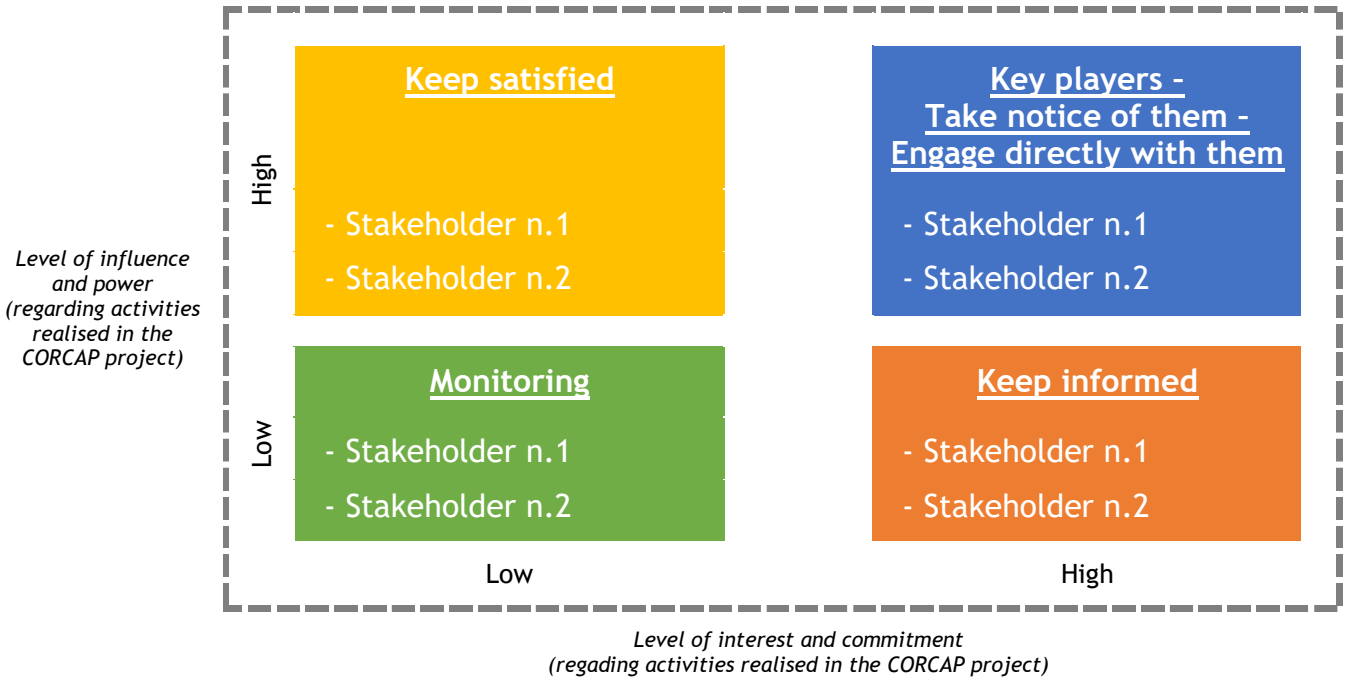
It is necessary to identify which solutions and directions of solutions are required, which knowledge is already available and which knowledge will be necessary to define project opportunities. With this regard, it is important not to promote isolated (single) developments, but to build on each other and complement each other (integrative approach). At this stage in-depth analysis is not needed.

## Stakeholder analysis and stakeholder involvement (6.)

It is also necessary to show the stakeholders with whom we would like to cooperate during implementation of the project. This includes the companies that are involved in the transportation of goods with the companies in the region, who can participate in pilot projects and support their implementation. It is also important to answer the question of the means and methods by which stakeholders can be involved in the analysis.

One of the results of the stakeholder analysis should be stakeholder maps (stakeholder matrix), visualising the possible relation of stakeholders towards cooperation within the CORCAP project, taking into account their level of influence and power and their level of interest and commitment regarding activities realised in the CORCAP project (i.e. in particular implementation of pilot actions and elaboration of Corridor Capitalisation Plans).

## STAKEHOLDER MATRIX




(draft: IU, based on SWOT analysis template)

Devices and methods that can be used to prepare the necessary analysis:

- Questionnaires and consultations
- Statistics
- Stakeholder workshops
- Analysis of existing studies and documents
- Expert interviews

Assessing the current state of affairs and identifying problems through the widest possible involvement of the profession, relevant stakeholders and civil society in order to gather all thoughts, opinions and suggestions, will help to develop professional goals and measures.

## Results

As a result of the territorial analysis, a sound basis for the implementation of pilot actions and for the elaboration of Corridor Capitalisation Plans will be provided. Initial solutions and suggestions will be formulated from technical and organizational aspects to link the land and sea freight transport chain and to develop and to strengthen combined transport modes along the Orient / East-Med corridor. Additionally, initial recommendations for future development leading to the strengthening of corridor functionality will be formulated, preparing the elaboration of Corridor Capitalisation Plans.

# Annex

Indicative table of contents of territorial analyses

1. Current situation analysis
1.1. Geographical and socio-economic description of the area, delimitation and definition of its catchment area
1.1.1. Geographical data, relief, natural and administrative boundaries
1.1.2. Identifying the corridor and determining its catchment area
1.1.3. Connections with relevant TEN-T and RFC corridors within the area
1.1.4. Examination of technical parameters of the area
1.1.5. Examination of intermodality and terminals in the area
1.1.6. Bottlenecks, barriers
1.2. Presentation of the transport infrastructure system
1.2.1. Transport infrastructure characteristics (road, railways, waterways, airports)
1.2.2. Multimodal interfaces
1.2.3. Cross-border links
1.3. Presentation of major economic activities and the settlement system
1.3.1. Description of the settlement system
1.3.2. Demographical and socio-economic situation
1.3.3. Description of cross-border relations
1.3.4. Presentation of companies in the area (manufactures, logistics, transport), identifying their activities
1.3.5. Industrial production, major floater (origin) and destination points
1.3.6. Agriculture production, food processing
1.3.7. Logistic, storage and distribution points
1.4. Presentation of freight characteristics
1.4.1. Partners (market actors)
1.4.2. Current major directions
1.4.3. Dimensions of the freight traffic
1.4.4. Presentation of loading devices
1.4.5. Presentation of current technology (workflow and operation), capacity limits
1.5. SWOT Analysis

2. Analysis of freight trends (trend analysis, time range 2019-2030 / 2050)
2.1. Possible directions of developments
2.2. Possible new connections
2.3. Terminating links (if any)

3. Presentation of planned developments (screening of documents)
3.1. Identification and presentation of strategies and documents with relevance for spatial planning and infrastructure planning (national / regional / local level, cross-border level)
3.2. Analysis of contents of identified strategies and documents, including development steps of the strategies and documents, the pace of their implementation
3.3. Presentation of completed and ongoing projects and actions

4. Spatial aspects of nodes in transnational transport
4.1. Needs and requirements for improvement of linking and distribution functions (node functions)
4.2. Process of node development (analysis of the processual dimension)
4.3. Networking activities