

‘The Belt and Road Initiative’

Impacts of the ‘New Silk Road’- corridor on
the city of Duisburg and the province of
Gelderland



Katrin Bruchmann

Bachelor Thesis Geography, Planning and Environment
Nijmegen School of Management
Radboud University Nijmegen
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Name:	Katrin Bruchmann
Student number:	s4454294
Course:	Bachelor Thesis Geography, Planning & Environment Nijmegen School of Management Radboud University Nijmegen
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Supervisor:	Prof. P. M. Ache
Second reader:	Prof. A. Lagendijk
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Summary

The historical Silk Route was a broad network of different roads and paths connecting China to the Mediterranean Sea. This ancient network was an important trade route for various goods in the past. Recently the Silk Road is of big interest again, as China wants to bring the historical Silk Road into the 21st century. In 2015 the Chinese government therefore published the official document 'Vision and Actions on Jointly Building the Silk Road Economic Belt and 21st-Century Maritime Silk Road', with the aim to formalize the 'Belt and Road Initiative' (BRI).

Already now more than 100 countries and various organisations have joined the initiative, which suggests that it is quite powerful and will probably have a big impact on the world the coming years.

The initiative exists of one terrestrial and one maritime axe, which are crossing Asia, Africa and Europe and connect three different continents with each other. The terrestrial axis comprises mainly railway lines, which have reduced the transportation time significantly, compared to transport via sea.

Zooming in on Germany, multiple train connections between different Chinese cities and Duisburg exist. Although the railway line is already in use, there is still not a lot of research done on the BRI and especially the railway line and its effects on Duisburg and its surrounding area, as the province of Gelderland. For this reason the aim of this research is to further develop the understanding of the corridor concept with regard to the 'Belt and Road Initiative', with specific focus on the city of Duisburg and the province of Gelderland, by making an assessment of the possible effects and consequences for the two actors. The following research question has been posed for this purpose:

What are (possible) effects of the corridor development of the 'Belt and Road Initiative' for the city of Duisburg and what are resulting consequences for the province of Gelderland?

To answer this question the first step was to detect different dimensions of possible effects by means of a literature study. In a next step these results were structured and presented in a tabular overview. These theoretical insights were used in the interviews which were conducted to get to know more about possible effects on Duisburg and Gelderland regarding the BRI. The interviews were held with experts on the side of Duisburg and Gelderland. For each interview a table was created based on the tabular overview of the theoretical concepts regarding effects of corridor concepts.

Moreover, to get a better overview over the BRI literature was analysed, including scientific articles, websites, extra interviews and one official document called 'Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road' which was published by the Chinese government. To get to know more about current issues regarding the BRI it was also made use of electronic media.

To conclude, it can be said that the BRI is a very broad initiative including a lot of different dimension and projects. The main conclusion concerning the main question is that there are already a number of effects of the railway on the city of Duisburg. These effects are especially related to the infrastructural dimension, the economic dimension, the spatial dimension and the subjective dimension. Regarding the environmental dimension not many effects were mentioned during the

interviews. In addition, also the government of Duisburg has an influence on the effects, as they are actively attracting Chinese companies.

Concerning the future Taube mentions the possibility that the role of Duisburg as an important arrival and dispatch station could be undertaken by another city. However, he is the only interviewee who thinks so, as all the others are stating that Duisburg will keep its important role in the future. If Duisburg will keep its role, Taube sees agglomeration effects to happen which will result in benefits for the city and its surroundings. Li states further that the Chinese interest in Duisburg will increase in the future, leading to a growing number of Chinese companies and tourists.

Regarding the province of Gelderland until now there are no effects observed. However, the BRI constitutes possible risks as well as opportunities for the province. From the interviews it got clear that all the interviewees agreed that the province needs to react to the Chinese initiative, because doing nothing would mean that Gelderland would be excluded and perhaps even negative effects could be the result. To make a chance of benefiting of the ongoing developments the province of Gelderland needs to be well connected to existing networks and needs to have available a good connection especially to Duisburg, as at the moment the city forms the endpoint of the railway. Moreover, to be attractive for other companies the province needs to look for the demands of companies. Furthermore, different interviewees suggested cooperation with actors who have the same interests, as this would strengthen the position towards China. In addition, it is important for the province to think about its comparative advantage compared to other provinces, cities and regions, as only with a comparative advantage the province is interesting for other actors.

The limited amount of interviews decreases the reliability of this research. For a better understanding of the effects of the BRI on Duisburg and especially Gelderland it would have been important to talk to more people. Particularly with regard to the environmental dimension it would have been useful to talk to experts on this field, as this dimension has been disregarded as the interviewees did not know much about this aspect.

As this research just gives a first overview over possible effects of the BRI on the city of Duisburg and the province of Gelderland further research is necessary to specify which effects are actually occurring in the future.

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List of Abbreviations

AIIB:	Asian Infrastructure Investment Bank
BRI:	Belt and Road Initiative
CDIRS:	Chengdu International Railway Services
EGTC:	European Grouping of Territorial Cooperation
ERFLS:	European Rail Freight Line System
OBOR:	One Belt, One Road
RAISE-IT:	Rhine-Alpine Interregional Seamless and Integrated Travel Chain
SREB:	Silk Road Economic Belt
TENs:	Trans-European Networks

1. Introduction

The historical Silk Route was a broad network of different roads and paths connecting China to the Mediterranean Sea. This ancient network was an important trade route for goods like silk, spices, ceramics, gold and glass. Furthermore, it was also used for other purposes, as missionaries used the roads to spread their religion by talking to travellers and people living along the route. At the same time also diseases spread by means of this network, which was travelled by very different people. Finally, the importance of the ancient Silk Road declined as maritime trade came up, leading to a decreased transport of goods via land, as transport via sea formed a much faster way of transporting goods (Fischhaber, 2011).

However, recently the Silk Road is of big interest again. A lot of different developments are taking place at the moment, as China wants to revive the historical Silk Road, bringing it into the 21st century. In the past the historical Silk Road was very influential through its role as an important trade network. Therefore, also the recent attempts of China to revive the Silk Road could have big impacts on our world as we know it today. The fact that already now there are more than 100 countries and various organisations involved in this initiative supports the assumption that it could have a big influence on the world. Among others this could form a reason why the interest in this Chinese initiative has grown in the last years, but nevertheless there is still a lot of uncertainty (Li, 2017).

1.1 Background

'The Belt and Road Initiative'

In September 2013, the Chinese president Xi Jinping introduced the concept of the 'Silk Road Economic Belt' (often abbreviated as SREB) during a visit in Kazakhstan. Just a few month later China announced that the realization of the 'Silk Road Economic Belt' would be seen as a key policy priority before 2020 and also the concept of the '21st Century Maritime Silk Road' was declared (Huang, 2016; Wang, 2016).

Both these concepts are part of the Chinese government's action plan called 'The One Belt, One Road' (OBOR) initiative, or later also termed the 'Belt and Road Initiative' (BRI). Li (2017) explains that the Chinese government in September 2015 decided to change the official English name from 'One Belt, One Road' to 'Belt and Road Initiative' for several reasons. The most important and also most obvious reason was that the initiative not just includes 'One' Road and 'One' Belt, but much more several roads and belts.

Moreover, also in 2015, the Chinese government published the official document 'Vision and Actions on Jointly Building the Silk Road Economic Belt and 21st-Century Maritime Silk Road', which aimed to formalize the 'Belt and Road Initiative' (Indeo, 2017).

Regarding the geographical location of the BRI one needs to be aware that it encompasses two different routes. Firstly, the 'Silk Road Economic Belt', which should be based on the historical network of trade routes of the 'old' Silk Road via land and secondly, the '21st Century Maritime Silk Road', which should be a maritime route through various oceans. As a result the whole concept exists of one terrestrial and one maritime axe, which are crossing Asia, Africa and Europe and connecting three different continents with each other (Wang et al., 2015).

Important also to mention here is that the action plan of the 'Belt and Road Initiative' is not stopping behind this two main axes. Much more they are thought of building the starting point to develop a much broader network in between these two main corridors (IDI, 2016).

Looking closer on the two main axes, the terrestrial route will comprise China, Mongolia, countries in central Asia, Russia, Iran, Turkey, the countries of the Balkans, countries of Central and Eastern Europe as Germany and the Netherlands. This will be mainly done through railway lines (see figure 1), as these form the best way of transportation compared with transportation by sea or air (Wang et al., 2015). The plans for the ‘Maritime Silk Road’ are to connect Southeast China with Southeast Asia, the countries of Bangladesh and India, the sea of the Persian Gulf and the Mediterranean Sea further until the Netherlands and Germany (Ferdinand, 2016).

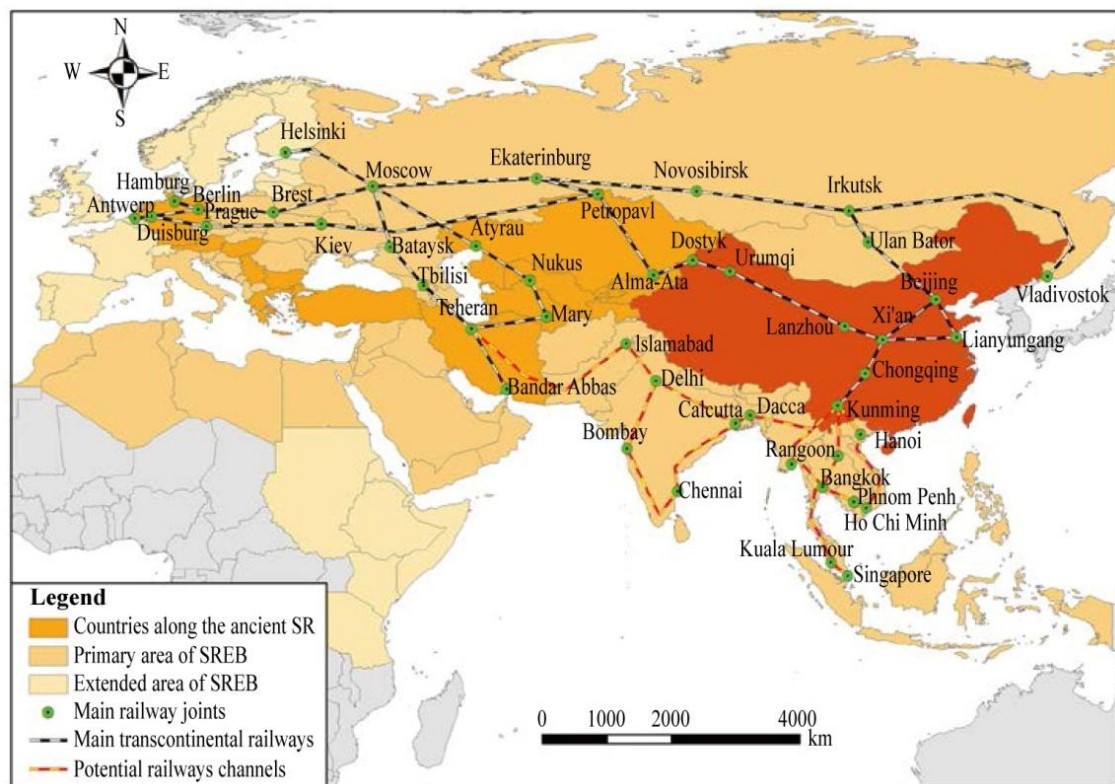


Figure 1: Railway connections of the BRI (Wang et al., 2015).

When comparing facts of different authors with each other it is important to take a close look on which area the author exactly is talking about. While Wang et al. (2015) and Dong et al. (2015) are talking just about the SREB, Huang (2016) and ECFR and Asia Centre (2015) are talking about the BRI in general.

According to Dong et al. (2015, p. 65) the area on which the SREB is situated counts for 43% of the global total. Furthermore, the SREB encompasses around 4.67 billion people standing for 66.9% of the total world population, according to Dong et al. (2015, p. 65) and Wang et al. (2015, p. 79). Regarding the GDP Dong et al. (2015, p. 65) and Wang et al. (2015, p. 79) assume 27.4 trillion USD, which would account for 38.2% of the world total.

Huang (2016, p. 318) states that the BRI in total will include at least 60 countries with 4.4 billion people which stand for 64% of the world population, while ECFR and Asia Centre (2015, p. 1) even talk about 70% of the world population. In addition, Huang (2016, p. 318) states that the number of the GDP produced by the inhabitants of the included countries accounts for 21 trillion USD, 30% of world GDP. ECFR and Asia Centre (2015) do not give the numbers in the form of the GDP, but use the GNP to express the economic strength of the people living in the area of the BRI.

Therefore they state that the GNP encompasses 55% of world GNP and further add the statement that the area of the BRI will manage 75% of global energy reserves (ECFR & Asia Centre, 2015, p. 1).

As the various authors use different areas to estimate the impacts of the Chinese initiative it is difficult to compare the numbers with each other. Moreover, it is not clear how the authors exactly calculated the numbers or on which assumptions they are based on. Besides it occurs that the numbers differ from each other. Nevertheless when looking at the different numbers it certainly gets clear that the numbers demonstrate that a big part of the world will be included. So summarized it can be said that the whole Chinese initiative will have a lot of power, also in global perspective, if it will be realized as planned.

Timeframe of realisation

Over the timeframe of the project is not that much written, but ECFR and Asia Centre (2015) assume that it could take quite a long time until the whole project is realized. They invoke on own sources which estimate that it could take until 35 years to implement the plans. That would mean that it could be scheduled to realize the action plan of the BRI in 2049, the year of the 100th anniversary of the People's Republic of China.

Referring to the time frame, China already has started to realize the action plan of the BRI. Therefore there are already some trans-border projects in planning, under which telecom and electricity lines, focusing especially on neighbouring countries, oil and gas pipelines which at the moment do not reach further than the Asian continent and also high-speed railroads, which are already ranging until Europe. Last but not least also ports will play an important role in realizing China's action plan (Huang, 2016).

Germany

Zooming in on Germany, there the freight rail traffic already started before the official announcement of the 'Belt and Road Initiative' in 2013. Already in 2008 the first regular cargo train drove from Germany to China. Since 2011, weekly rail traffic between the two countries takes place, via the so called 'Chongqing-Xinjiang-Europe railway line'. Nowadays, the transportation of goods between Germany and China takes about two weeks. Before 2011 it took around 40 days to transport goods between Germany and China (Xinhua, 2016). This means that quite an improvement in terms of time has taken place the last years, making transport even more attractive.

In addition the amount of containers transported is growing. At the moment there are different routes, a Northern route and a Southern route. With the focus on Germany, train connections between Chongqing and Duisburg, Zhengzhou and Hamburg, Wuhan and Duisburg/Hamburg, Changsha and Duisburg as well as between Shenyang and Leipzig exist (Doll, 2016). Besides, there are already trains to the Netherlands, as since 2016 the so called 'Chengdu-Tilburg-Rotterdam-Express' exists between China and Rotterdam. Trains just need 15 days to bridge the distance between the two countries and arrive at their destination. In 2016 trains were running weekly, but the hope was that this could be increased up to five trains per week in 2017. From the Chinese city of Chengdu there are very good connections also to other Chinese cities, like Shanghai, Ningbo, Wuhan, Yiwu, Xiamen, Shenzhen, Nanning, Kunming and also to the countries of South Korea and Vietnam (Port of Rotterdam, 2016).

The case: Duisburg

As mentioned already, Duisburg forms the end point of multiple train connections starting in Chongqing, Wuhan and Changsha (Doll, 2016). As Li (2016) states, there are already effects appearing, which can be allocated to the growing train connections between China and Duisburg. The increased connectivity is responsible for the increased exports and imports between China and Duisburg. The city of Duisburg, but also surrounding areas of the city, are benefitting from these developments. Moreover, the growing exports and imports are stimulating other positive effects, as local employment. In addition, since the implementation of the train connections it seems that Chinese entrepreneurs and also local governments are more interested in the region of Duisburg. Chinese companies have increased their investments and there are also more Chinese local governments interested in cooperation with the region than in the past. As a result, the numbers of Chinese companies which are located in the region of Duisburg have increased up to more than 50 companies (Li, 2016).

With focus on the future, Li (2016) expects that all these developments will result in even more Chinese companies deciding to go to Duisburg and its surrounding areas. Furthermore, he assumes that the growing attention of Chinese companies and governments will also result in a growing attention under the Chinese population, resulting probably in a growing number of Chinese tourists coming to Duisburg and its surrounding areas.

According to Li (2016) there are already a lot of effects visible of the Chinese initiative of the New Silk Road. He does not only mentions already existing effects, but also tries to draw possible scenarios for the future. Remarkable hereby is that Li solely describes positive effects.

Casarini (2016) to the contrary is more reserved about the 'Belt and Road Initiative'. She states that the initiative certainly forms a great opportunity for Europe, but she also points to some challenges and expresses concerns regarding the Chinese investments in Europe. According to her these investments could result in competitions between the different European countries for money. These competitions could go so far that they could divide the member states of the European Union. Furthermore, by gaining more and more power on political and economic level, China could form a possible threat to Europe. Casarini (2016) mentions that some critics are worried that China could threaten the European economy by exporting goods and selling them for very less on the European market, which would mean that European companies would not be able anymore to compete. Also with regard to the installing of the big infrastructure projects related to the OBOR initiative some European critics are afraid that European countries will not be able to compete with Chinese companies, because of lack of transparency and preferences for Chinese companies (Casarini, 2016).

So while Li (2016) mentions only positive effects, Casarini (2016) also suggests some possible challenges for the future. This is important to be aware of in the further progress of the research.

The case: Gelderland

Regarding to Li (2016) and the effects he mentions for Duisburg, it is important to notice that according to him the positive effects of the New Silk Route initiative are not just focused on the city of Duisburg. Rather the effects spread and also affect surrounding areas of the city, without exactly defining what he means by 'surrounding area'. Li (2016) leaves it open if the province of Gelderland counts to the surrounding area of Duisburg in his view. Nevertheless, he indicates that effects on the province of Gelderland could be possible.

The location of Gelderland is strategically situated between sea harbours, as for example Rotterdam and Amsterdam and the European hinterland from Germany to Poland and the Baltic states. In addition, Gelderland forms an important link between the European transport corridors of Rhine-Alpine and the North Sea-Baltic transport corridor.

The Rhine Alpine corridor plays an important role in the European transport networks. The corridor runs from the harbours of Rotterdam and Amsterdam to Genoa, Italy. Gelderland forms the connection between the two ends of the corridor.

The North-Sea Baltic corridor stretches into the Eastern direction. Ranging from the harbours of Rotterdam and Amsterdam over Gelderland and the EUREGIO-area to Poland and the Baltic states, it forms a relevant part of the transport networks which the European Commission is stimulating since 2014, with the aim to improve the transport of people and goods in a sustainable way. Through the location and the good accessibility, Gelderland forms the perfect connection between different places.

In addition, three of the most important transport routes for the Netherlands run through Gelderland. These routes cover different modes of transportation, namely transport via water, road and railway. The river Waal forms the route via water, the A15 is the motorway, which runs from Rotterdam to the region of Gelderland and the Betuweroute is a railway line from Rotterdam to Zevenaar, which is situated near the Dutch-German border. As a result the railway line forms also a connection between the large port of Rotterdam and Germany.

Given that the Waal is a branch of the river Rhine which runs through Germany and that the A 15 and the Betuweroute connect the western parts of the Netherlands with the eastern parts of the country linking the Netherlands to Germany and that all those routes run through Gelderland, implies that Gelderland also has a good connection, at least to the western part of Germany.

Moreover, since 2012 the province of Gelderland is actively working on the accessibility to strengthen the logistic sector of the region. Therefore, Gelderland has established an action plan together with different actors from business life, provinces, municipalities and research and knowledge institutions to work together and improve the accessibility of the province.

All these different aspects have a positive influence on the economic development of the region of Gelderland (Provincie Gelderland, n.d.).

The relation between the province of Gelderland and the city of Duisburg

In the section about the location of the province of Gelderland it is already suggested that the province of Gelderland and the city of Duisburg are well connected with each other. This argument is also supported when taking a closer look on the members of the European Grouping of Territorial Cooperation (EGTC) Rhine-Alpine. Among these members are also the province of Gelderland and the Duisburger Hafen AG (European Communities, n.d.). The European Grouping of Territorial Cooperation is created as an instrument with the aim to assist the progress of the cooperation across borders, transnational as well as within regions. Therein regional as well as local authorities and also public bodies from various member states are included (Europäische Union, 2017).

Another example of the good connection between Duisburg and the province of Gelderland is the example of the rail connection run by 'Abellio'. This railway line is a connection between the two cities of Düsseldorf and is the capital of the province of Gelderland, Arnhem. Since April 2017 the line is in use and connects the two countries via Duisburg with each other (Verkehrsbund Rhein-Ruhr, 2017).

These examples prove that efforts to bring the province of Gelderland and the city of Duisburg further together have already been taken. This implies that the connection between the two could be even further strengthened in the future.

1.2 Research objective

From the literature review it got obvious that certainly there will be effects of the corridors of the BRI on the surrounding areas. In addition, Li (2016) already mentions some effects of the New Silk Road on the city of Duisburg. Nonetheless, there is not a lot of literature or research on the effects of the BRI and if these effects will display in a positive or more negative way.

Therefore this research will be constituted of two case studies, focusing especially on the city of Duisburg and the province of Gelderland. These case studies are aiming to extend the knowledge about big corridor projects and the effects on their surroundings with special focus on the BRI.

Firstly, this research aims to identify possible consequences of big corridor projects in general. Secondly, it will be the objective to identify the different positions and expectations of the city of Duisburg and the province of Gelderland and compare these with each other. The third aim will be to compare the theory with the practice to finally be able to make predictions about the effects of the New Silk Road initiative for the city of Duisburg and the province of Gelderland. The research outcomes could be also valuable for the practice of the government of Gelderland.

Concluding, the main goal of this research can be put as follows:

The aim of the research is to further develop the understanding of the corridor concept with regard to the 'Belt and Road Initiative', with specific focus on the city of Duisburg and the province of Gelderland, by making an assessment of the possible effects and consequences for the two actors.

1.3 Research framework

The research framework in figure 2 indicates the different steps which need to be taken to finally be able to reach the main goal of this research (Verschuren & Doorewaard, 2010).

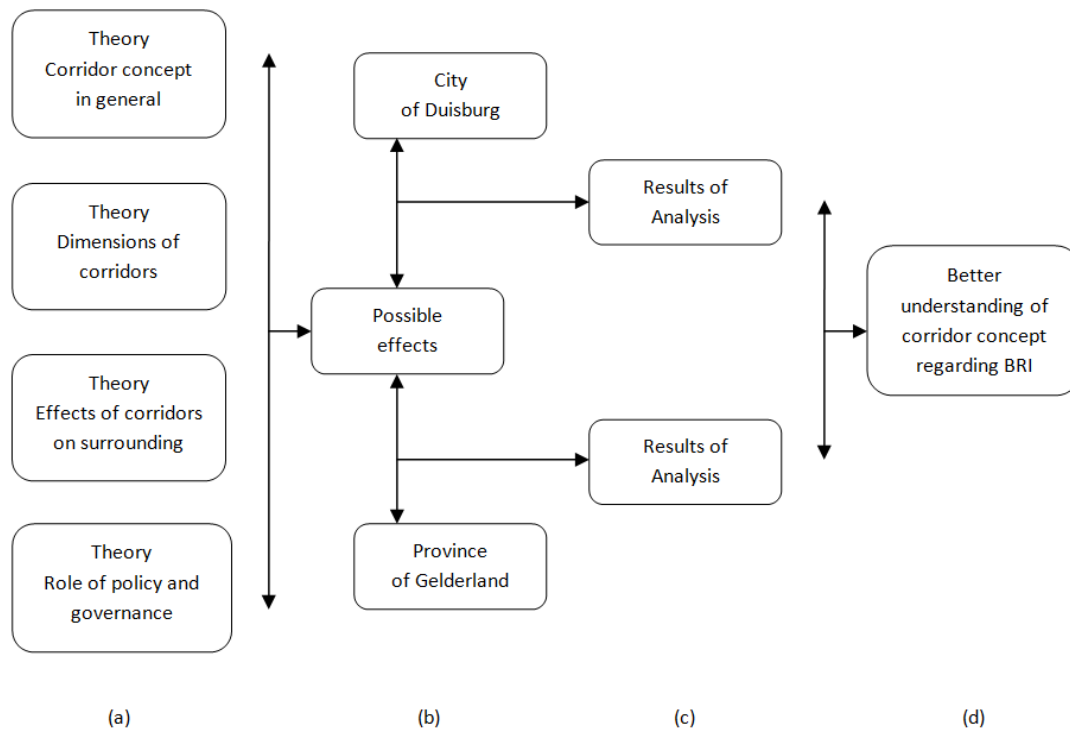


Figure 2: Research framework (author, 2017).

In the first step of this research (a) relevant literature on the theory of the corridor concept in general, the different dimensions of corridors, effects of corridors on their surrounding and the role of governments and policy sectors will be studied. This will result in (b) a table with possible effects for the city of Duisburg and the province of Gelderland regarding the BRI. A (c) comparison of the possible effects in general mentioned in the literature and the most likely to happen effects in the areas of Duisburg and Gelderland (identified through interviews) will result in a (d) better understanding of the corridor concept with regard to the BRI in these areas.

1.4 Research question

To achieve the above mentioned research objective, the following main research question will be answered:

What are (possible) effects of the corridor development of the 'Belt and Road Initiative' for the city of Duisburg and what are resulting consequences for the province of Gelderland?

The main research question is divided into different sub-questions. Answering the different sub-questions will help to find an answer to the main research question. The sub-questions for this research are as follows:

1. *What exactly is the 'Belt and Road Initiative' about?*
2. *What are the effects of big corridor projects in general on their surrounding?*
3. *What are expectations of the corridor development of the 'Belt and Road Initiative' on the side of the city of Duisburg?*
4. *What are expectations of the corridor development of the 'Belt and Road Initiative' on the side of the province of Gelderland?*
5. *What are effects of the corridor development of the 'Belt and Road Initiative' for the city of Duisburg?*
6. *How are expectations and effects related to the general effects mentioned in the literature?*
7. *What are the chances of the corridor development of the 'Belt and Road Initiative' for the province of Gelderland?*
8. *What are possible risks of the corridor development of the 'Belt and Road Initiative' for the province of Gelderland?*
9. *What could the province of Gelderland do to get more involved in the corridor development of the 'Belt and Road Initiative'?*

1.5 Relevance

Scientific relevance

The literature points out that there exist already some articles about the 'Belt and Road Initiative'. Nevertheless, at the same time these articles also show that there is still a lot unknown. This is partly because the issue is quite recent. Only in 2013 Chinese president Xi Jinping announced the plans for the initiative officially (Huang, 2016; Wang, 2016). So there has not been a lot of time to do research about this specific issue.

Related to this, there is also a lot of uncertainty about what exactly will happen. This is also visible in the literature which already exists. The literature partly is not consistent and authors disagree with each other about the descriptions of the project. That has firstly to do with the complexity of the whole initiative. As said, the project is not just about infrastructure, but encompasses a lot more aspects, like economic and political issues (Huang, 2016). Secondly, also of influence is that a lot of literature is written in Chinese, which means that it is not accessible for everybody. This makes research for people who do not understand Chinese more difficult. Moreover, the already existing literature is mostly about the project itself, with the focus on China and the reasons for implementing this strategy. Over the implications for Europe, with regard especially to the city of Duisburg and the province of Gelderland, there is not very much written in

the scientific literature, which means that there is not a lot of knowledge about this specific topic until now.

However, Huang (2016) states that the BRI is the greatest international ambition of China so far. That explains why he sees the Chinese initiative as very important, also in international terms. He actually goes even that far to state that the OBOR could transform the world economy. In addition, also Minghao (2016) states that the Chinese initiative will have broad implications for the relations between Europe and China, but does not specify how these implications will exactly look like.

All this makes it very relevant to take a look at this issue to identify what possible consequences of the BRI could be. Also with regard to other countries and projects it is interesting to learn from this big project and to develop the theory of such big corridor projects further.

Societal relevance

From the literature review it gets clear that the actual effects of the New Silk Road initiative are quite unclear until now. However, at the same time it seems clear that the BRI certainly involves effects. Unclear remains how these effects will show up in reality. Therefore it is important to identify possible effects of the initiative, as these effects could influence the life of people and also the business life in the region of Duisburg and Gelderland.

As Li (2016) states, there are already effects visible in Duisburg regarding the train connection between China and Duisburg. As examples he mentions flourishing local employment and growing interests in the region of Duisburg by Chinese companies and governments. Li (2016) predicts that these developments will even intensify in the future. That would suppose positive effects for people living there and companies which are established in the region of Duisburg.

In contrast, Casarini (2016) expresses concerns about the whole initiative. She states that Chinese companies could form a threat for the European economy by selling goods much cheaper on the European market than European companies can do. European countries therefore could not be able to compete with Chinese companies anymore, which would result in big losses of jobs. The BRI thus could have big influences on European people and also on European companies. These influences could pack out positive as well as negative.

Therefore, it is important to get to know more about the possible consequences of this Chinese initiative. If there is more certainty about which effects are more possible and which effects are less possible, governments can give special attention to expected developments. That would give governments the possibility to influence developments, before it is too late.

2. Theoretical framework

Since the whole initiative of the BRI has been announced only quite recently, there is not that much written about the initiative as a corridor concept and the consequences which are related to such a corridor development with regard to the specific case of Gelderland. However, there is a lot of literature over corridors in general and concerning other examples of corridors.

2.1 Emergence and current importance of the corridor concept

The discussion about corridors as development axes started already in the 1950s among practitioners and scholars, under which also spatial planners and geographers. One of the latter according to Sap (n.d.) was also C.F.J. Whebell who published a study about corridor development in 1969. As stated in Sap (n.d.), Whebell sees geographical differences between various places and therefore distinguishes between three factors. The first factor in which places differ from each other, Whebell mentions according to Sap (n.d.), is the attractiveness of a place to people to come and live there. The second factor Whebell describes as stated by Sap (n.d.) is the aspect of technology. Places are in different stages of technological development. And last but not least, according to Sap (n.d.) for Whebell differences of locations also get clear in looking on the human development. People are always oriented to make as less effort as possible to achieve a goal, but some regions are further developed than others and therefore people in some regions have to make more efforts to get something done than people in other regions.

Based on these three assumptions, according to Sap (n.d.), Whebell derives that some locations are more preferable for people to live in than others. Furthermore, human and spatial development will always follow the routes in which people have to do the least efforts to get from one point to the other. Because people are transmitter of knowledge and goods, knowledge and trade will always spread by these routes (Sap, n.d.).

These statements give a first indication why corridors develop and why they are important and deserve further exploration. As written according to Sap (n.d.) Whebell's theory states that knowledge and trade will spread around a corridor. As a result it is easy for people to transport goods and knowledge within this corridor.

An underlying concept of this assumption that corridors lead to development of cities and regions is the concept of connectivity. Through the implementation of corridors the connectivity improves which stimulates progress (Priemus & Zonneveld, 2003). Build on this assumption the Trans-European Networks (TENs) programme was developed since the 1990s (Priemus & Zonneveld, 2003; Marshall, 2014). The idea behind the TENs programme was to create one market within the EU in which the transport of goods and energy would be easy, leading to economic development (Marshall, 2014). The TENs programme distinguishes between three different networks, the transport (TEN-T), energy (TEN-E) and telecommunication network (Marshall, 2014, p. 1488).

The TEN-T consists of two levels, the comprehensive network and the core network with nine major multimodal corridors. The core network indicates the most important parts within the comprehensive network and the nine corridors form the implementation tools for projects within the core network. The corridors thus form important policy instruments in the present (Tuszyńska & Gouardères, 2017).

Summarizing it can be said that not just in the past corridors have played important roles, but the concept of corridors forms also in the present an important tool for spatial planning in Europe. Therefore corridors are an important development concept within Europe.

But not just in Europe the concept of the corridor is implemented. Much more also in other countries corridors are developed and with regard to the BRI also there corridors play an important role and are part of the initiative. As Casarini (2016) indicates, China “wants to build a new Eurasian land bridge and develop six economic corridors”(p. 97), under which the Economic Corridors of “China-Mongolia-Russia, China-Central Asia-Northern Europe (New Eurasia Land Bridge), China-Central Asia-West Asia , China-Pakistan, Bangladesh-China-India-Myanmar and China-Indochina peninsula” (Casarini, 2016, p. 97), not mentioning the corridors via sea here. By means of this corridor concept China thus aims to promote the economic development and stimulate the overall connectivity and so the cooperation between the including countries (Casarini, 2016).

2.2 Various features of corridors

Based on the three assumptions mentioned above, Whebell according to Sap (n.d.) also defines corridors in his study. Sap (n.d.) writes that Whebell sees a corridor as “a linear pattern of major towns joined by highly developed bundles of transport routes” (Whebell, 1969, p. 4, in: Sap, n.d., p. 10). As stated in Sap (n.d.) Whebell’s definition thus focuses on the transport function of corridors and includes also big cities situated in between these corridors. This is in line with Albrechts and Coppens (2003), who focus just on the European context and talk about corridors as a concept that is related to large infrastructure axes. According to them these axes can consist of physical as well as virtual connections, between urban main regions. Zonneveld and Trip (2003, p. 1) state that corridors can be seen in general as “bundles of infrastructure that link two or more urban areas” with each other. Zonneveld and Trip (2003) thus agree with Whebell according to Sap (n.d.) and Albrechts and Coppens (2003) by including also the aspects of transportation and urban areas in their definition. Furthermore, they support Albrechts and Coppens argument of virtual connections by saying that the concept of corridors has developed over time and now encompasses also other forms of connections than the most known. Corridors thus not just include connections like highways, rail links, bus lanes, cycle paths, canals, sea connections and air connections, but also “ICT infrastructure, power lines and cables, pipes for drinking water, as well as for natural gas, crude oil, electricity, and sewage” (Zonneveld and Trip, 2003, p. 1). Nonetheless, Zonneveld and Trip (2003) say that the development of corridors mostly is related to different kinds of transportation of goods and passengers. In addition, the European Spatial Development Perspective sees a corridor, while especially focusing on eurocorridors, not just as “a bundle of infrastructure”, but at the same time also as “development axes” (Priemus & Zonneveld, 2003, p. 169). This suggests that corridors play an important role with regard to economic development and growth of regions. It is said that “eurocorridors are seen as instrumental in spreading economic development over the European territory” (Priemus & Zonneveld, 2003, p. 170). Furthermore, it is argued that corridors can bring together the policies of different sectors, such as the transportation, the infrastructural, the economical development, the urbanisation and the environmental sector (Priemus & Zonneveld, 2003, p. 169).

2.3 Dimensions of corridors

Building upon the various definitions and features of the corridor concept, Priemus and Zonneveld (2003, p. 173) distinguish between three different meanings.

In the first, the concept of the corridor is seen as an infrastructure axis. It is focused on the development of traffic, ranging from passenger traffic to the traffic of goods. It is all about traffic

flows and traffic engineering (Priemus and Zonneveld, 2003). When the different actors which are responsible for the different parts of traffic, like roads, rails and water, work together and make good agreements, this can result in advantages for the infrastructure development. Roads and railway tracks can be adapted to each other, which leads to a structured and non-chaotic infrastructure. Here, corridors are thus interpreted as having a transport function (Priemus and Zonneveld, 2003).

The second dimension sees a corridor as an axis where economic development takes place. The underlying assumption here is that economic development depends on good accessibility. If areas are situated in a good working infrastructure network and are easily accessible companies will move there which will lead to growing economic development. The meaning of corridors in this way lies in their economic function (Priemus and Zonneveld, 2003).

In the third context the corridor is seen as an axis for urbanisation. In this view the infrastructure network influences where urban settlements will take place. In this interpretation of corridors the spatial function is emphasized (Priemus and Zonneveld, 2003).

Priemus and Zonneveld (2003) state that regarding these different meanings it gets clear that corridors are not just influenced by already existing structures, but that they are at the same time also highly influencing on their surroundings. Through the increased accessibility arising from the implementation of a corridor, areas attract more people and companies, especially companies which are operating in the sectors of logistics and distribution. This illustrates that corridors influence the spatial progress and spatial structures of its surrounding areas.

2.4 Further development of the corridor concept: the concept of mega corridors

Based on the concept of corridors a more enhanced concept developed in the European context, the concept of mega corridors. Romein, Trip and De Vries (2003) describe mega corridors as concentrated bundles of infrastructure where different modes of transportation are involved. Furthermore, they see the aspects of infrastructure and transport, urbanisation, economic development and nature and landscape as important points while looking on mega corridors (Romein, Trip & De Vries, 2003, p. 205). These aspects are, aside from nature and landscape, quite similar to the three dimensions Priemus and Zonneveld (2003, p. 173) distinguish for corridors. De Vries and Priemus (2003) add that mega corridors form a connection between large urban areas, which is quite similar to the description of corridors.

Zonneveld and Trip (2003, p. 16) identify three criteria of mega corridors which differ more from 'normal' corridors and which they see as characteristics of mega corridors. First, mega corridors are international, reach across national borders and as a result are also part of different national frameworks. Second, mega corridors are important parts of a broad international network, which stretches out over hundreds of kilometres. Last but not least, a mega corridor contains multiple modes of transport, in the form of a real network, or just a concentration of different modes of transport in a specific corridor.

Regarding the extent of the BRI it is also possible to speak of a development of two mega corridors from Asia through Africa and Europe, as both are reaching out over various countries, even continents, and are part of a big international network. Furthermore, the Chinese BRI is not just focused on one mode of transport. Much more the project includes telecom and electricity, oil and gas pipelines and high-speed railroads (Huang, 2016), but the aim in the future is also to set up

cooperation on academic, cultural, social and political level between actors in different countries (Huang, 2016; Wang, 2016).

Summarizing, Priemus and Zonneveld (2003, p. 173) mention three dimensions of corridors in general, describing corridors as infrastructural, economic and urban development axes. More focused on mega corridors, Romein, Trip and De Vries (2003, p. 205) name the dimensions of infrastructure and transport, urbanisation, economic development and nature and landscape. Remarkable is that the dimensions of the different authors are quite similar, except for the dimensions of nature and landscape.

As a result it can be stated that the most important dimensions of corridors, including mega corridors, are the infrastructural, economic and urban dimension. Another dimension is formed by nature and landscape, which is however neglected by Priemus and Zonneveld (2003).

2.5 General effects of corridors

Looking through the literature on the effects of infrastructure on their surroundings a lot of different concepts are mentioned. For a better understanding I will first outline the most important concepts which are mentioned in the literature, before talking about the possible effects of corridors on their surrounding in more detail. These concepts are basic assumptions regarding possible effects which could occur.

2.5.1 Accessibility

For the better understanding of the next section it is important to understand what is meant with the term accessibility. As stated in the literature accessibility is a quite broad term and knows therefore different definitions. According to Geurs and Van Wee (2004, p. 128) Hansen (1959) describes accessibility as “the potential of opportunities for interaction”, while Ben-Akiva and Lerman (1979) as stated also in Geurs and Van Wee (2004, p. 128) define accessibility as “the benefits provided by a transportation (...) system”. The first definition by Hansen (1959) according to Geurs and Van Wee (2004) points out that through the implementation of a corridor, which includes the construction of infrastructure, the accessibility is improved, which increases the chances for interaction. The second definition mentioned talks about the benefits of a transportation system, consequently if a transportation system is improved, more benefits should occur. Geurs and van Wee (2004) distinguish between different components of accessibility. For them accessibility contains of four different components: the land-use component, the transportation component, the temporal component and the individual component (Geurs and van Wee, 2004, p. 128). Here, it is focused just on the transportation and the temporal component, because they are the most important regarding corridor developments. The transportation component describes the time, costs and effort an individual has to invest to come from an initial point to the place one wants to go to (Geurs and van Wee, 2004). Important terms herein are also demand and supply. Demand encompasses both, the demand of passengers who want to travel as well as the freight which needs to be transported. The supply refers to the existing infrastructure and its ways in which it supports or prevents people and freight from travelling (Geurs and van Wee, 2004). The temporal component is about the timeframe of the possibilities or impossibilities to travel. This is for example about how the possibilities to travel are situated in time. This includes better or worse travel possibilities at certain time steps of the day.

With regard to corridors accessibility thus plays an important role, because through the implementation of a corridor, the transportation component and the temporal component are mostly improved.

2.5.2 Spillover effects and network effects

Besides accessibility also spillover and network effects are often mentioned with regard to infrastructure projects. Spillover and network effects are referred to in one section, because they correlate with each other.

Spillover effects are positive effects which show up because of a certain intervention, for example investment in infrastructure, and spread also to other areas. López, Monzón, Ortega and Quintana (2009) bring up the example of the improvement of the transport network in one country which can have positive effects on neighbouring countries. These effects will be greater, if the infrastructure project is bigger (Gutiérrez, Condeço-Melhorado, López, & Monzón, 2011). At the same time it is important to mention that spillover effects “are inversely proportional to distance” (Gutiérrez et al., 2011, p. 841), which means with growing distance to the intervention which produces the benefits, spillover effects will decline.

Strongly connected with spillover effects are network effects. While with spillover effects benefits of an intervention happen in other places too, also these two places are not obviously connected with each other, network effects describe the event of an improvement of one part of a network, which results in benefits also for other parts of the network (Gutiérrez et al., 2011). As a result the effects of an infrastructure project can range until areas which are situated remarkable away of the area where the infrastructure project is implemented (Vickerman, 1991b, in: Vickerman, 1994a).

While network effects are confined to the network they are part of, spillover effects can spread across the boundaries of a network. Thus, both, spillover effects as well as network effects contribute to the spreading of effects of investment into infrastructure. Gutiérrez et al. (2011) emphasize that the interaction between spillover effects and network effects is especially important with regard to big cross-border transport infrastructure corridors, because they produce potential spillover effects on very big scale as a result of network effects. Furthermore, Gutiérrez et al. (2011) also link these effects to accessibility, as they state that an increased accessibility most of the time leads to greater spillover effects. This means that if areas are well connected to each other it is more possible that spillover effects will arise. In addition, the literature further states that especially in border regions spillover effects occur (Condeço-Melhorado et al. 2013; Salas-Olmedo/Gutierrez 2014 in: Schade et al., 2015).

Spillover effects and network effects thus can appear and can distribute possible effects of infrastructure even further, so that they are not just confined on the area where the intervention takes place. Spillover effects and network effects can be of importance with regard to possible effects and where they appear.

2.5.3 Spread and backwash effects

Two additional concepts which are also important with regard to possible effects of corridor development are spread and backwash effects. These effects are often mentioned together, as they describe two interrelated situations.

According to Myrdal (1963), as Ho (2004) states, economic processes always unfold in a mixture of backwash and spread effects. Backwash effects describe in that respect effects which show up outside of the area with economic growth. Economic growth in an area leads to more jobs and in total to more wealth in this area. That leads people from surrounding the area with economic growth to move to the area, because they also want to profit from this successful area. As a result circumstances in surrounding areas, which are not part of the successful area, will get worse, as a lot of people leave this area for the more successful area. This describes the negative effects a successful area can have on its surrounding. On the other hand also spread effects can occur. Spread effects are effects which the area with economic growth has on its surrounding. Here the success of this specific area will spread to surrounding areas, which means that other areas will also benefit of the economic growth. Spread effects thus describe the positive effects economic growth in one specific area can have on its surrounding (Ho, 2004).

Related to this, a research of Gaegler, March and Weiner (1979, in: Forkenbrock & Foster, 1990) investigated the effects of a motorway on two different types of towns, towns which are situated within five miles of the road and towns which are situated further away. The results showed that towns situated in the radius of five miles benefited more of economic growth than the towns further away. Nevertheless, also the towns beyond the five miles radius had benefited of the motorway.

The concept of spread and backwash effects suggests that economic growth in one area always has positive as well as negative effects on their surroundings. This would mean for possible economic benefits resulting of the implementation of a corridor that they could lead to positive as well as negative impacts on the surrounding.

2.6 Spatial economic and environmental effects

The basis for the identification of possible effects of corridors on their surrounding is formed by the three meanings of corridors Priemus and Zonneveld (2003, p. 173) distinguish and which were described above. These include the transport function, the economic function and the spatial function of corridors. These three dimensions are used to describe effects of corridors on their surroundings. Furthermore, also the dimension of nature and landscape (Romein, Trip & De Vries, 2003) will be included to take a look on the environmental effects related to corridors.

2.6.1 Infrastructural effects

Infrastructural effects are related to the transport function of a corridor (Priemus and Zonneveld, 2003). With this in view, Brinkhorst (2016) states that corridors can have effects for traffic on national as well as on regional level. Especially the accessibility increases within the corridor, which explains that faster connections get possible. This travel time improvement also implies new chances for regional services (Brinkhorst, 2016). Vickerman (1994a) states in this respect that when a major change in the infrastructure takes place there are two possible things that could happen with regard to transportation. The first is that people and enterprises make more use of the infrastructure, because of its improvement. The other possibility is that they do not maintain the use of the infrastructure and just profit from the lower costs which arise because of the improvement. In contrast to Brinkhorst (2016), Wojciechowski (2016) states that corridor implementation leads to congestion, especially around cities. Wojciechowski (2016) explains this as follows: Traffic networks always include certain nodes where traffic movements come together. This happens mostly in urban

nodes, because this is the place where different routes come together. The whole argument Wojciechowski makes, assumes that the first of the two possibilities Vickerman (1994a) mentions occurs when infrastructure improvements are realized.

Summarized it can be said that there are positive as well as negative impacts possible and it does not get clear which effects are more possible to occur, or how people and enterprises mostly react.

2.6.2 Economic effects

When looking into the economic effects of big infrastructure projects Vickerman (1994b, p. 4) states in general that “infrastructure is an important determinant of regional production potential”. Going more into detail, Profillidis and Botzoris (2013) as also Schade et al. (2015) distinguish between short-term and long-term impacts of big infrastructure projects on their surroundings. However, they do not explicitly mention what time period exactly they understand by short-term and long-term and they do not give an explanation why they have chosen for this timeframe. From the document of Profillidis and Botzoris (2013, p. 4, footnote 8) it gets clear that by long-term impacts they mean impacts which show up after a period of 20 years. Consequently, short-term impacts would be effects which show up within 20 years according Profillidis and Botzoris (2013). In general short-term impacts are occurring shortly after or even during the implementation of an infrastructure project, while long-term impacts are occurring later.

Moreover, Geurs and Van Wee (2014) indicate that accessibility plays an important role. Firstly, there are direct impacts of accessibility, which are directly related to a better or worse accessibility and result in economic impacts. The most common example is that travel costs decrease, because of better accessibility. Secondly, you have indirect economic benefits of accessibility, which aren’t directly related to a change in accessibility. An example could be that a certain place gets more attractive for companies, because of a better accessibility through the construction of a transport route (Geurs & Van Wee, 2004). This would imply that a corridor through increased accessibility provides economic benefits (Geurs & Van Wee, 2004). Nevertheless, it does not get clear which parties exactly will profit from these economic benefits. Schade et al. (2015) add that direct and indirect impacts are not just important with regard to accessibility. They talk over direct and indirect impacts in general and specify, while indirect impacts are not directly related to the infrastructure projects and are also referred to as “wider economic impacts” (Schade et al., 2015, p. 29), direct impacts can directly be related to infrastructure projects and include increased requirements of resources and workforce regarding the implementation of infrastructure projects (Schade et al., 2015).

Consequently, infrastructure projects have an influence on the labour market in general and on the job generation more specifically. Focusing on employment, infrastructure projects generate in the short-term direct as well as indirect jobs. Direct jobs are created within the region, because the implementation of transport infrastructure needs a lot of workers who are building the new infrastructure. Indirect jobs arise out of the fact that a lot of resources are needed for the construction of infrastructure (OECD, 2002; NRA, 2013; in: Schade et al., 2015). There are also reports which have quantified the numbers of jobs which are generated in the short term by infrastructure investments (Schade et al., 2015). Infrastructure projects are not just about new jobs which are created, but they also result in other positive effects.

Regarding the long-term impacts, the improved accessibility can result in structural changes in the labour market (Jiwattanakulpaisarn, 2007; Department for Transport, 2007; in: Schade et al.,

2015). The improved accessibility can influence the labour market in different ways. It can support clusters and agglomerations, which results in a larger labour market area, because for people, also from further away, it is easier to get there. Furthermore, an improved accessibility can benefit the balance of work demand and work supply, because people are more mobile, resulting in a more productive and efficient labour market. This can also have negative impacts for areas outside the region, as jobs can move away from there (Schade et al., 2015). This would be a good example of the further above explained backwash effects, wherein areas surrounding the successful area decline as a result of the successful area pulling everything away.

Metsäranta et al. (2013; in Schade et al., 2015) have indicated that, focused on regional development, the long-term impacts which can occur are less valuable, compared with the short-term impacts. Lakshmanan (2008; in: Schade et al., 2015, p. 39) emphasizes that infrastructure projects “affect accessibility, labour supply, trade, and lead to second round effects expanding production and stimulating structural change finally altering total factor productivity and GDP growth”. Grosch (2016) agrees that the implementation of corridors influence the Gross Domestic Product (GDP), but do not indicate if the GDP increases or declines. However, Profillidis and Botzoris (2013) support the argument of the increasing GDP by Lakshmanan, stating that through the increasing employment there is more economic activity, which leads finally to federal and local tax revenues.

Furthermore, Vickerman (1994a) mentions changes in transport costs with regard to big infrastructure projects. A remark hereby is that not just the costs of transportation are important, but also the reliability of transport. A good indicator with regard to this is the level of congestion. A further remark is the efficiency of the transport network. The efficiency of a network is associated with the stockholding costs, which are much more important for the total costs, than the transport costs. Within these changes of the transport costs it needs to be differentiated between output effects and production effects. Both are associated with decreasing costs of infrastructure through the implementation of a big infrastructure project. Firstly, the output effects are not just directly related to the decreased transport costs through the implementation of the infrastructure project, but also the competition between different transport modes play a role. Through the competitive position and decreased cost of for example rail transport as a result of the implementation of additional tracks, also other modes of transport need to reduce prices as they still want to be able to compete. This reduces the impact of the deterrence function, which states that the higher the generalised costs are the lower the number of trips to regions further away (Vickerman, 1994a). As Vickerman (1994a) suggests further, the effects of an infrastructure project differ also for each sector. Every sector has different relevance for different transport modes. Depending on which transport mode will improve they will benefit more or less compared with other sectors.

2.6.3 Spatial and urbanisation effects

Spatial effects can include a wide range of effects, but are about effects which are focused on space. Vickerman (1994a) suggests that the literature often mentions different effects for the periphery and the core regions. Often it is stated that there are less till no effects on the periphery, since the periphery is just too distant to the infrastructure project.

According to Vickerman (1994b) the typical definitions of core and periphery are not working in this case. Much more it is important to see regions in regard to the network of infrastructure they are part of. Crucial therefore is to look at the accessibility of a place along the network and also to the network. Places which have a good accessibility can be seen as the core and

effects are more possible to occur there. Areas which are less accessible along and to a network are seen as the periphery and it is less possible that they get affected, as they are not spatially connected to the network. These regions often form just the transition route for a corridor. The traffic goes through the region, but there is no possibility for the region to profit from this route as there are no junctions which connect the region with the corridor. Much more the infrastructure connects the core regions with each other, ranging through the periphery areas. This often even results in negative effects, as exhaust gas pollution, for the periphery. Big infrastructure projects can thus lead to even more disadvantages for peripheral regions as they get even more excluded (Vickerman, 1994b). In addition, to guarantee an efficient and fast connection between the core areas, for them it is more desirable that there is no access to other regions in between (Vickerman, 1994a).

Relating to this, even more problems can emerge if periphery regions make the attempt to get better connected to the core area. This can lead to even more negative impacts for the other peripheral regions. Through establishing better accessibility to the core even more traffic can lead away from the rest of the periphery, emphasizing the difference between core and periphery. These effects are so called 'shadow effects'. Peripheral areas are excluded from the benefits of a corridor and suffer even more as traffic is lead away by attempts of other peripheral areas, which try to profit from the benefits by improving the accessibility. The results are intraregional (within regions) and interregional (between regions) tensions. Interregional tensions are not occurring just between the periphery and the core, but also between metropolitan and non-metropolitan regions. This is, because one region always benefits at the expense of other regions.

Balázs (2016) writes that through the corridor implementation population and economic growth are appearing within the corridor. Through the improved accessibility, transport within corridors grows. At the same time cities within the corridor get more attractive to people through the better accessibility, resulting in a growing number of citizens within these cities. Also companies prefer locations which are easy accessible. This results in a clustering of economic activity within the centre of the corridor and a population growth around major cities. Also Grosch (2016) mentions population as a factor which can be influenced by corridor implementations. Nevertheless, he is not that positive than Bálaz (2016), as he states that the population can grow as well as decline. He talks over different results in different countries within the corridor (Grosch, 2016).

Concluding, it can be said that there is no steadily impact through space (Vickerman, 1994a). Much more there are also regions, which are more or less excluded of benefits, so called 'grey areas' or 'interstitial spaces' (Page, 1994; Vickerman, 1994a).

2.6.4 Environmental effects

Goodenough and Page (1994) write a lot with regard to the environmental effects of big infrastructure projects. There are different components which can be distinguished with regard to environmental impacts, such as health and safety, air pollution, noise pollution, ecological impacts and the effect of different modes of transport (Wayson& Bowlby, 1989; TEST, 1991, in: Goodenough and Page, 1994, p. 27).

Moreover, in the paper, reports are mentioned which were written by environmental consultants who were investigating possible effects of an infrastructure project. Therefore they took a deeper look on a whole range of different aspects: vibration, noise, land-use planning and community considerations, landscape, ecology, historic and cultural resources, agriculture, aquatic life, transport and traffic, atmospheric effects, contaminated land, waste and landscape and visual

resources (Goodenough & Page, 1994, p. 35). All these different aspects are intended to specify possible environmental impacts of big rail infrastructure projects. Wayson and Bowlby (1989) researched noise and air pollution even in more detail and ascertained that the levels of noise and air pollution differ for different rail systems and characteristics of trains.

Moreover, also agricultural impacts are mentioned (Goodenough & Page, 1994). These can range from temporary to permanent land losses for farmers through the realisation of an infrastructure axis. Furthermore, also problems can emerge when the planned tracks cross agricultural land. The access to the agricultural land or the use by farmers can be disturbed through rail tracks and their realisation. Through the realisation also other problems as field drainage and changes in the groundwater flow and the inherent streaming patterns can emerge. During the realisation also dust generation can form a problem for the surrounding (Goodenough & Page, 1994). A number of the already mentioned effects can also impact the human health, as for example vibration and noise and air pollution (Goodenough & Page, 1994; Wayson and Bowlby, 1989).

2.7 Image

Vickerman (1994a) talks about subjective effects, which he describes as the 'image' of a location. Apart from the transport costs and other more or less measurable factors, also the image of a certain location plays an important role when companies need to decide where to move when they are planning to expand or are just looking for a better location. Therefore the image can be very influential especially when deciding between locations which both have good accessibility.

With regard to the image of a certain location especially the media presence plays a great role. What has been written in the media about the infrastructure project which is realized near the location? What is written about the corridor development and how is it described? Is it focused on the possible congestion which could be a result or more on the positive impacts like better accessibility and decreased transport time? With these questions it gets clear that it is of great importance to look how an infrastructure development is framed in the media and by influential people, like politicians.

Research of Henley et al. (1989, in: Vickerman, 1994a) have shown that a company's choice for a new location depends much more on the subjective image than on real measurable facts of a location. That means that people base their choices more on their feelings and perception of a location than on objective measurements.

When thinking about possible effects of big infrastructure projects on their surrounding it is therefore important to pay attention also to the image which is framed in the media, as this can be of great influence on the actual effects.

2.8 The role of policy and governance

For the point of view that governments and policy sectors play an important role with regard to (mega) corridors there is a lot of literature available. Chapman et al. (2003), De Vries and Priemus (2003), as well as Priemus and Zonneveld (2003) support this argument. Although they all see the importance of one or more institutions who take the lead over such projects, they also have some comments on how this lead should look like.

Chapman et al. (2003) suggest that it is very important with regard to governments and policy players that they define clear criteria on which they can later test and monitor their policy making and decisions. Therefore they have to think in advance about specific aims of the corridor

development which can structure to whole process. This has also a positive effect on the governments and policy sectors, as they have some kind of grip which they can follow. Also for the population this is beneficial, as they know what to expect.

When looking at the impacts governments and policy sectors can have on the effects which result from the implementation of big infrastructure projects, generally it is stated that policy interventions can, on the one hand support positive effects and on the other hand also restrict negative effects resulting from big infrastructure implementations (Vickerman, 1994a). Furthermore, it can be also looked in more detail on the way in which governments and policy sectors can influence effects of big infrastructure projects. Therefore here it is distinguished between the different dimensions of effects, which are listed above.

There cannot be found clear roles for governments and policy sectors with regard to infrastructural effects of big infrastructure developments in the literature. This implies that it is quite difficult for governments and policy sectors to directly influence these effects.

Regarding the role of governance and policy in the economic effects of big infrastructure developments, Crescenzi, Di Cataldo and Rodríguez-Pose (2016, p. 676) “investigated the importance of government quality for the economic returns of transport infrastructure investments in the European regions”. They came to the conclusion that “adequate government institutions” (Crescenzi et al., 2016, p. 577) play a very important role for the economic success of transport investments. Although the research of Crescenzi et al. (2016) is not directly related to this research, they nevertheless indicate in their research that governance and policy play an important role regarding economic effects. Moreover, Crescenzi et al. (2016, p. 577) write: “In all cases, government quality on its own or after controlling for human capital endowments and innovation has been more strongly linked to economic growth than transport infrastructure investment.”. With this sentence the importance of governments and policy gets even clearer. Therefore, although the research by Crescenzi et al. (2016) is not directly related to this research, still a conclusion is drawn here. This conclusion is based on the findings of Crescenzi et al. (2016) on the role of governments and policy. Consequently, here it is assumed that if governments and policy play such an important role regarding economic returns of transport investments, governments and policy are obviously quite powerful in influencing economic outcomes and as such can also influence the outcomes of economic effects of big infrastructure developments.

Focusing on the spatial dimension, it can be said that through the realisation of a big infrastructure project on the one hand, new possibilities can emerge, which need to be supported to be able to unfold the whole range of opportunities. On the other hand, big infrastructure projects can create inequalities between regions, which need to be solved by governments to ensure an equal distribution of benefits from an infrastructure project (Vickerman, 1994a). Governments and policy sectors thus play an important role in supporting positive or preventing negative spatial effects.

Also with regard to environmental effects governments and policy can have an impact on the resulting effects of the implementation of a big infrastructure project. Through drawing up guidelines on the implementation of the project environmental impacts can be reduced (Goodenough & Page, 1994).

Last but not least, with regard to the image of an infrastructure project governments and policy sectors play crucial roles. If governments and the policy sector show interest in a region, support big infrastructure projects and are also willing to invest in such structures, the image of a region will be better. Also the promotion of a region by governments and policy can have a positive

influence on the image. As explained further above the image plays an essential role with regard to companies which are searching for a new location (Vickerman, 1994a).

De Vries and Priemus (2003) suggest two general strategies on how to improve governance in corridors, as they see it as a relevant part which is still improvable. First, there should always be different actors included, when talking, planning and implementing corridor projects. De Vries and Priemus (2003) see it as relevant to have various and also contrasting views on such big projects. Especially with regard to governments, different units of these governments should actively participate. Additionally, when thinking about such big corridor projects and their developments it should always be thought on a local scale. That means to take a look on the specific area and identify typical aspects. Actors really have to focus on this specific area to be aware of things that are going on there and relevant developments which could be affected by the corridor. The improvement of the governance should include different areas of infrastructure, urbanisation and economic development. Therefore the improvement should be focused on the coordination between the different areas where policy is made. More detailed, this means that improvement is needed firstly, with regard to the coordination between the different sectors and segments of policy that exist in society. Secondly, regarding the participation and working together between public and private institutions. Thirdly, working together across borders, because often, like also is the case in the example of the 'Belt and Road Initiative', corridors exist across borders and don't stop at national borders. Often the aim of corridors is even to promote the cooperation, transportation and trade between countries. Therefore, it is almost a requirement that different governments make agreements and have the same understanding of the role of a corridor. Fourthly, also with regard to the relationship between central and local governments and their way to coordinate and organize things improvement has to take place. Governments need to work together and make compromises while organising such projects (Priemus & Zonneveld, 2003).

2.9 Challenges

Priemus and Zonneveld (2003) pose a number of challenges with regard to big infrastructure developments as corridors. The first challenge is about the regulation of short and long distance traffic. The improvement of infrastructure is seen as part of the solution to this problem. The second challenge Priemus and Zonneveld (2003) describe is about the promotion of the interconnectivity of networks. A third challenge is about the interaction of urban locations and infrastructure networks. It is important that accessibility is also guaranteed in urban areas and that green spaces and recreation areas are included in the planning of infrastructure networks. Therefore before the realisation it has to be thought well about the implementation and bundled corridor developments should be promoted, which leave also space for green areas. A fourth challenge lies in the implementation of infrastructure axes. The realization may not happen at the costs of the natural area where it is situated in. The last mentioned challenge by Priemus and Zonneveld (2003) is about the multinational character of such projects. Often corridors cross municipal, regional and even national borders, which can be challenging, as different governments and sectors therefore have to work together to make the development successful. This can be quite challenging, also with regard to different regulations, but nevertheless there are also examples which show that it is possible.

Vickerman (1994b) states that it is also a challenge to see infrastructure projects and their effects as not continuous through space. With this regard the importance of accessibility is again emphasized. Therefore, it is necessary to identify which infrastructure really is relevant for a certain

region. This can also differ for the different sectors and actors located in a certain area. Another remark Vickerman (1994b) makes, is that just the existence of infrastructure is not enough to look at. Much more one has to identify to which extent it is actually made use of the infrastructure and its capacity.

2.10 The importance of rail and possible implications of the BRI for Gelderland

Big infrastructure projects can appear in various forms. Niedzielski and Malecki (2012) focus on rail networks and discuss why exactly they are of great importance. The authors argue that “urban rail is an important component of place-making and therefore global competitiveness because its local and global mobility functions enhance a city’s image and quality of life and set the stage for densification and agglomeration economies” (Niedzielski & Malecki, 2012, p. 1414). Niedzielski and Malecki (2012) give also two other arguments why urban rail infrastructure is beneficial for cities. Firstly, urban networks play an important role with regard to economic benefits and relating economic growth for cities. Secondly, urban rail networks are fundamental with regard to the aim of a more sustainable future. Turning back to the large infrastructure development of the BRI the rail tracks from China ranging till Duisburg could be also influential for the city of Duisburg and its surroundings, including Gelderland. This assumption is further supported by the arguments discussed above, which can be also applied to the case of Gelderland.

With regard to spillover effects and the network effect, the province of Gelderland could also benefit of the BRI. According to the spillover and network effects, benefits could also spread to neighbouring countries, which are not involved in the construction and implementation of the railway network. In the specific case of the province of Gelderland the theory of spillover effects and the theory of network effect would mean that it is possible that Gelderland could benefit of the Chinese initiative, too. Although the railway line only runs from China until Duisburg and Gelderland is not directly involved in the whole project, the province could benefit, because the province is situated not that far away from Duisburg. Another beneficial point is that Gelderland is well connected to the city, because as Gutiérrez et al. (2011) state, an increased accessibility most of the time leads to greater spillover effects. In addition, it is also written in the literature that especially in border regions spillover effects occur, which would also support the argumentation that the region of Gelderland could benefit from spillover effects ranging from Duisburg (Condeço-Melhorado et al. 2013; Salas-Olmedo/Gutierrez 2014 in: Schade et al., 2015).

Focusing on the possible spread and backwash effects, the resulting effects could be negative as well as positive. Backwash effects, as well as spread effects could appear, resulting in a pulling away of work forces and other things or if the contrary is the case, resulting in positive effects on the province of Gelderland, through the spreading of benefits of the rails.

Through the development of the corridors which are part of the BRI the accessibility between China and Europe increases. This would mean based on the theory of accessibility, that it is more probably that there will be interaction between the two countries in the future. Furthermore, you could also assume, based on the different definitions, that the implementation of the corridor will provide further benefits (Geurs & Van Wee, 2004).

Also with regard to the other discussed possible effects of big infrastructure projects, it gets clear that the corridor between Asia and Europe will have certain impacts.

2.11 Tabulate overview over effects

Based on the literature which I discussed above, I will investigate the possible effects from the specific project of the BRI for the city of Duisburg and the region of Gelderland. Therefore, I will tabulate the most important aspects of the literature with regard to the BRI.

Table 1: Different dimensions of effects of corridors (author, 2017).

Dimension	Resulting effects		Indicators		Policy/ Governance
Infrastructural/ transport	Accessibility	Time improvement	More use	Congestion	
			More profiting		
Economic	Timeframe	Short term	Direct result of accessibility	Decrease travel/ transportation costs	Adequate governance/ policy can influence economic outcomes (Crescenzi et al., 2016)
		Long term	Indirect result of accessibility	Increased attractiveness	
	Types	Direct	Requirement of resources and workforces		
		Indirect	Wider economic impacts		
	Accessibility	Direct	Changes in travel costs		
		Indirect	Changes in attractiveness of location		
	Labour market	Job generation	Employment	Direct jobs	
				Indirect jobs	
		Structural changes	Clusters and agglomerations	More people also from the outside come to work there	
			Productivity and efficiency of labour market	Balance work demand and work supply	
	Negative effects for surrounding areas				
	Gross Domestic Product (GDP)				
	Transport network	Costs	Output effects		
			Input effects		
		Reliability	Level of congestion		
		Efficiency	Stockholding costs		

	Sector			
Spatial/ urbanisation	Accessibility along and to a network	Periphery	Shadow effects	Regulatory effect on inequalities (Vickerman, 1994a)
		Core		
		Tensions	Intraregional	
			Interregional	
	Population	Changes in number		
Environmental	Pollution	Noise		Can draw up environmental guidelines to protect nature (Goodenough & Page, 1994)
		Air/ atmosphere		
		Vibration		
	Human health	Pollution	Noise	
			Air/ atmosphere	
			Vibration	
	Ecology	Aquatic life		
		Groundwater		
		Field drainage		
	Landscape	Agriculture	Land loss	
			Disturbed access	
		Historic and cultural resources		
Subjective	Image	Media		Strengthened effect (Vickerman, 1994a)
		Policy		
	People-to-people exchange	Cultural exchange		
		Academic exchange		
		Media cooperation		
		Tourism		
		Research centres		
		Political exchanges		

In the literature effects are approached from the viewpoint of various dimensions. These dimensions include infrastructure and transport, economics, spatial and urbanisation aspects, the environment and also subjective elements. Remarkable hereby is the fact that social aspects are mainly excluded in the general literature on corridors.

Nevertheless, with regard to the literature especially on the BRI and its effects on Duisburg social aspects are mentioned. For example Li (2016) mentions cross-cultural communication and exchange of ideas as very important effects resulting from the BRI in his article. In addition, also Huang (2016) and Wang (2016) mention these social aspects with regard to the BRI under the term of 'people-to-people-exchange'. Huang (2016) is more specific about what the term 'people-to-

people exchanges' exactly means and includes in his description: cultural exchange, academic exchange, media cooperation, cross-country tourism, disease control, collective research centres and political exchanges (Huang, 2016, pp. 319-320). Furthermore, some of these came also back in personal conversations which were held during the research.

These examples show that the social aspects obviously are also important effects with regard to the BRI. Therefore this aspect is included in the overview of the effects and is added to the table as the effect of 'people-to-people-exchange'. As 'people-to-people-exchange' is about the exchange of subjective perceptions of different actors the term is added to the subjective dimension in the table.

2.12 Conceptual model

Based on the concepts and theories described in the theoretical framework a conceptual model can be created. "A conceptual model consists of a set of assumed causal relationships between the core concepts of a research project" (Verschuren & Doorewaard, 2010, p. 267). Therefore the main concepts from the theoretical framework which will be used in this research and their relationships are illustrated. Besides, it is tried to apply these concepts to the specific case of the BRI and the specific areas of Duisburg and Gelderland. Consequently, with the conceptual model it is tried to present the expected developments concerning the BRI in Duisburg and Gelderland based on the theory. As a result, for this research the following conceptual model was created:

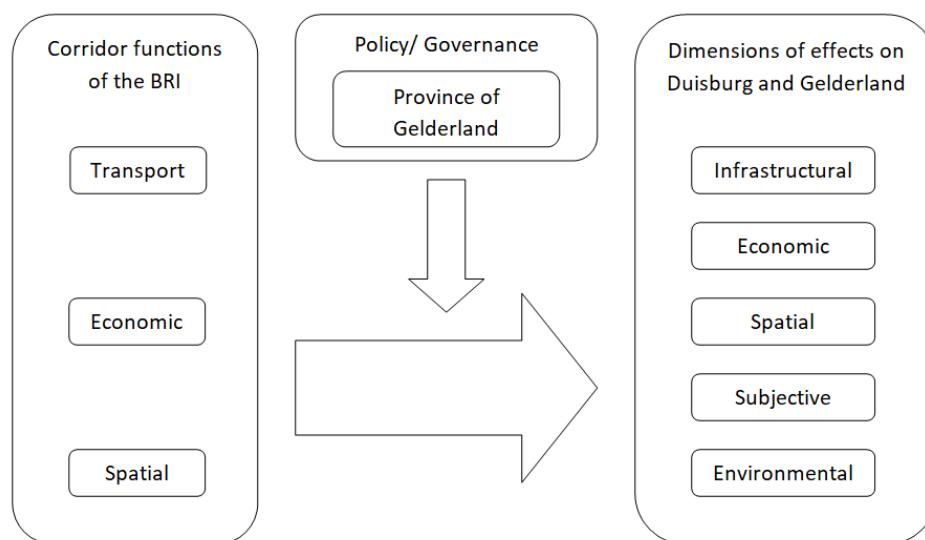


Figure 3: Conceptual model (author, 2017).

As it got clear in the theoretical framework corridors consist of three different functions, a transport function, an economic function and a spatial function. Based on this it is also thought of the BRI as having these three different corridor functions. These functions are expressed through the railway which already exists and also the trade which takes place via this railway.

Consequently, these different functions of corridors lead to various effects on their surrounding if a corridor is implemented. As a result it is expected that also for the area of Duisburg

and Gelderland these effects will show up. The effects and their indicators are described in more detail in the theory section and can be also found in table 1.

Moreover, as stated also in the theoretical framework policy and governance can play a big role in influencing how effects are occurring, through supporting or weakening effects by means of legislation and other tools and measures. That would mean for this research that also in the case of the BRI and with regard to effects on Duisburg and Gelderland policy and governance could influence how effects occur. As a result also the province of Gelderland could play an important role in the future with regard to the BRI and its developments.

In addition, other concepts and theories, such as spillover effects, networks effects and spread and backwash effects are not included in the conceptual model, as in this research it is not focused on them. These concepts are thus just mentioned in the theory section, because in the literature about corridors it is referred to them a lot. What their role exactly is with regard to the BRI and the area of Duisburg and Gelderland should be explored in further research.

Given its exploratory nature, this research tries to examine if these relationships between the different concepts actually exist and if the mentioned effects are really possible to occur in the case of Duisburg and Gelderland with regard to the BRI. Forms this conceptual model thus actually a good representation and prediction of the development in these specific cases? Another aim is to get clear if it is actually possible for the province of Gelderland to influence effects and in which way.

3. Methodology

In the previous chapter theories about corridors were discussed. Before it can be started with the implementation of the research a couple of decisions need to be taken. These choices are related to the research design. It needs to be decided which strategy will be used during the research and for which methods it will be chosen. Moreover, it needs to be considered which way will be the best to gather the needed data and how this data will be analysed later. Thereby the aim of the research needs to be kept in mind, which is to further develop the understanding of the corridor concept with regard to the BRI, with specific focus on the city of Duisburg and the province of Gelderland, by making an assessment of the possible effects and consequences for the two actors.

3.1 Research strategy and research methods

There are thus a lot of different things a researcher has to think about before starting with the implementation of the research. Therefore Verschuren and Doorewaard (2010, p. 155) describe a research strategy as a “coherent body of decisions concerning the way in which the researcher is going to carry out the research”.

Based on the aim and the appertaining research questions of this research it is chosen for an in-depth and qualitative approach. Regarding the field of study the in-depth approach is suitable as the research focuses especially on the areas of Duisburg and Gelderland. As it is just looked on these specific areas the generalisability of the results of the research is limited. The limited generalisability is an important restriction of the choice for an in-depth approach. In contrast, a more broad approach gives the possibility to formulate more general statements based on the research (Verschuren & Doorewaard, 2010). Yet, this broad approach is not applicable in this case, as for this research it is only important what are the results regarding the regions of Duisburg and Gelderland. Furthermore, there are also advantages of the used in-depth approach, as it enables “to achieve depth, elaboration, complexity and soundness, thus minimising the risk of uncertainties” (Verschuren & Doorewaard, 2010, p. 156). This means that the research aims to give holistic and detailed information about the field of study which is important when trying to get a better understanding of the effects and consequences of the BRI for the city of Duisburg and the region of Gelderland.

As the theoretical framework already made clear it is not that easy to predict which effects will occur in the future. Moreover, the research focuses on what will happen in the future and regarding the timeframe of the study it will not be possible to measure expected effects. As the quantification of the effects is not possible also a quantitative approach is not useful. To the contrary, in this research a qualitative approach is used, as the research is more focused on describing, structuring and interpreting effects, intending in getting a better understanding of the BRI through this process. Therefore this research can be thought of as a first attempt to create a framework for analysis.

This framework can form a support for actors in structuring the initiative and can help them to focus on the most important dimensions related to the BRI. As a result the framework can also support the action perspective of actors and help them to make decisions.

In addition, the aim of the research, which is to get a better understanding of the corridor concept with regard to the BRI, shows the explorative nature of the research. Creswell (2013) states that when a research aims to explore an issue or a problem a qualitative approach is applicable. He further says that qualitative research is also applicable when a complex understanding, meaning a

detailed and comprehensive description, of a phenomenon or problem is needed (Creswell, 2013). These statements thus also support the choice in this research for a qualitative approach.

All the choices described above for a qualitative, in-depth and exploratory approach imply the use of a case study as a research strategy. This assumption is also supported by Verschuren and Doorewaard (2010, p. 178), who suggest that case studies are characterised by a number of things, which include for example the use of qualitative data and research methods, an in-depth approach, a small number of research units, intensive data generation and a selective sample of the research units. In this research two cases are studied, namely the case of the city of Duisburg and the case of the province of Gelderland. These two cases will be studied by means of collecting empirical data on them. To get a more complete image of the two cases it is chosen to use a combination of different methods of data collections, the so called triangulation of methods (Verschuren & Doorewaard, 2010, p. 179). Therefore interviews were held and a document analysis was done. In addition, also triangulation of sources (Verschuren & Doorewaard, 2010, p. 179) was tried to achieve through making use of different sources, as scientific articles, electronic media for news reports, interviews with experts and official documents, to get a more complete image of the BRI. By using triangulation of methods and sources it is also striven after increasing the reliability of the research.

The first step to answer the main question was to look for relevant literature dealing with specific theories and facts which are already known about the BRI and also about concepts and theories of corridors in general. This already existing knowledge was then analysed to find out if it is also relevant for and can be applied to the cases of Duisburg and Gelderland. By starting from general knowledge and theories and working to the specific areas of Duisburg and Gelderland a deductive approach is used in this research (Creswell, 2013). Based on knowledge and concepts from the literature, documents about the BRI were analysed and interviews were conducted. As typical for a case study the people for the interviews were selectively chosen, based on their background and their field of study or their field of work. Through conducting interviews as well as analysing already existing literature, it is not only worked with primary data, generated through the interviews, but also with secondary data, which existed already and could be found in articles and other documents.

3.2 Data collection

For this research qualitative data was collected. The primary forms of data collection are interviews which were conducted. Regarding the data collection it is important to differentiate between the various sub-questions which were created to be able to answer the main research question. Especially the first sub-question requires a much more intensive and integral data collection than the other sub-questions.

With regard to the first sub-question '*What exactly is the 'Belt and Road Initiative' about?*' especially literature was collected. Here it needs to be distinguished between scientific articles which were published in magazines and official Chinese sources. The Chinese sources consist of one official document called '*Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road*' which was published by the Chinese government and contains information about the BRI from the perspective of the Chinese government. The second Chinese source is the official website of the AIIB and focuses especially on the founding of the whole initiative. As the whole BRI is a quite recent phenomenon electronic media was used to get to know more about current issues. The information gathered by this means is added to the interviews which were held.

The second sub-question 'What are the effects of big corridor projects in general on their surrounding?' was answered especially through the collection of scientific articles dealing with general effects of corridors.

The data which was collected to answer the other sub-questions consists of a number of interviews which were conducted. The interviews were conducted with the intention to address specific sub-questions, but mostly the interviews produced also valuable information regarding other sub-questions. For conducting the interviews a selection of relevant people were made. This selection was not randomly, but instead a selective choice, focusing on experts and people who were expected to have a lot of knowledge with regard to the corridor between Europe and China, with special focus on Gelderland and Duisburg. The various interviewees were chosen with the thought of approaching the corridor from different perspectives. Furthermore, it was searched for people who could tell more about the field of Europe-China relationships. In addition, also the province of Gelderland was approached as it was hoped that they could give important views on this topic from the institutional and political perspective. At the same time the perspective of the province was used as a starting point in the data collection in the forms of interviews.

Therefore, the first interview was held with Joost Roeterdink who works at the province of Gelderland as Policy Maker for Economic Affairs. The aim of this interview was to get more information about the perspective of the province on the BRI and to get to know more about what the province is doing at the moment with regard to corridors in general. This plays also an important role in answering the fourth sub-question about the expectations of the corridor development of the BRI on the side of the province of Gelderland. In addition, Joost Roeterdink handed over a summary of an interview with Roland Verbraak, the director of GVT Tilburg, Zhang Jialu, Irene Xiang, from the province of Gelderland, and himself which was held on the 4th of April in 2017.

Moreover, Prof. Dr. Markus Taube and PhD Acting Prof. Yuan Li from the Institute of East Asian Studies at the University Duisburg-Essen were approached, as it was hoped that they would be able to give some more information about the position of Duisburg in the BRI and possibly already visible effects of the Chinese initiative (3rd and 6th sub-question). Prof. Dr. Markus Taube "is Professor of East Asian Economic Studies/ China at the Mercator School of Management and, as a director, chairs the in-EAST School of Advanced Studies at the University of Duisburg-Essen" (Universität Duisburg Essen, n.d.a). PhD Acting Prof. Yuan Li is "Acting Professor and Representative Chair for East Asian Business and Economic Studies at IN-EAST and Mercator School of Management at the University of Duisburg-Essen". Moreover, "he is also President Elect of the Chinese Economic Association (Europe/ UK)" (Universität Duisburg Essen, n.d.b). He was also chosen with the aim of getting to know more about the relationship between Europe and China. Unfortunately Prof. Dr. Markus Taube was not available for a personal conversation, but he was willing to answer some questions per e-mail. With PhD Acting Prof. Yuan Li an interview was conducted in Duisburg. In addition to this interview beforehand also an article in a scientific magazine was found, which formed a support in answering the third and the sixth sub-question, but was also used as a basis for the interview. After the interview PhD Acting Prof. Li handed over a book in which Alessia Amighini (2017) has collected different short articles forming an analysis of the BRI, written by different scientific authors, under which also PhD Acting Prof. Yuan Li. The name of the book is 'China's Belt and Road: A Game Changer?'.

During the conversation with Joost Roeterdink from the province he mentioned that a company which produces baby food was already making use of the connection between China and Duisburg. Moreover, he told about the Clingendael Institute which according to him approaches the

BRI from a more critical point of view. As these two actors represent a completely different perspective than the province of Gelderland and the actors from Duisburg it was decided to approach them, too.

Therefore Remco Jonker who works as Manager Customer Service and Distribution at the company which produces baby food was approached and an interview was held with him. The primary aim of this conversation was to get answers to the sub-questions regarding the province of Gelderland and to get new insights from a very different actor compared with the other actors which were interviewed (4th, 7th and 8th sub-question).

From the Clingendael Institute Dr. Frans-Paul van der Putten was approached, as well as Dr. Maaïke Okano-Heijmans. Dr. Frans-Paul van der Putten is a Senior Research Fellow at the Clingendael Institute. His research focuses on “understanding the consequences of the rise of China as a major power and of China’s New Silk Road strategy” (Clingendael, 2017a). Dr. Maaïke Okano-Heijmans is a Senior Research Fellow and her focus lies on economic diplomacy and international relations in East Asia, especially Japan and China. She also focuses on the question of “how developments in these fields matter to Europe, the EU and, in particular, to the Netherlands” (Clingendael, 2017b). With Dr. Frans-Paul van der Putten an interview was held at the Clingendael Institute in Den Haag. Unfortunately, Dr. Maaïke Okano-Heijmans was not able to join this conversation and referred to her colleague as the best contact person with regard to questions about the BRI and possible effects for Gelderland. The aim of the interview with Dr. Frans-Paul van der Putten was to get an insight in especially the risks of the corridor development of the BRI (8th sub-question), but also to get an opinion from somebody who has a broad knowledge about the BRI, as the Clingendael Institute is working on very different fields. After the conversation the man handed over a report by the European Think-Tank Network in China (ETNC) called ‘Europe and China’s New Silk Roads’, in which he is also listed as one of the editors.

For each of the interviews an individual interview guide was created. As the various interviewees had different backgrounds the interview guide was adjusted to their personal expertise to be able to get into more detail during the interviews and focus on the subjects the interviewees know the most about. At the same time, it was also tried to base the interview guides on the theoretical dimensions from the theory section. During the interviews the interview guide served as guideline for the conversation, but when an interesting and relevant topic came up also questions which were not written down in the interview guide were asked to be able to get to know more about topics which were not found in the literature in advance. In addition, the interviews were recorded with the permission of the interviewees to be able to listen back to the interviews in a later stage. The interview guides for the different conversations can be found in Appendix I till V.

3.3 Data analysis

To analyse the collected data qualitative methods were used.

In order to understand and structure the scientific articles dealing with general concepts and theories about the corridor concept use was made of the method of content analysis. Based on the content analysis a tabular overview was created including all the most important concepts and theories. This table formed also an important base for the analysis of material which was analysed at a later stage, as an article written by Yuan Li and the interviews which were conducted.

The content analysis was also the primary method to analyse literature about the BRI in general and with specific focus on the areas of Duisburg and Gelderland. Also with regard to getting

a better image of recent issues in the electronic media the content analysis was used. Furthermore, also the additional interview handed over by Joost Roeterdink and the website of the AIIB were analysed by means of the content analysis, looking for relevant information for the research. In addition, the article written by Yuan Li in a scientific magazine was also structured by means of content analysis, but additionally the article was also presented in a table based on the tabular overview of the different concepts and theories on corridor concepts in general.

The only exception in which also quantitative data were used forms the official document 'Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road'. This document was analysed with the qualitative programme Atlas.ti by means of the tool Word Cruncher, which counts the frequency of words in a text and presents the results in a tabular overview. This counting of frequencies is a more quantitative way of analysis. The first time the programme was ran on the document a lot of stop words and prepositions were still in the list. As they are not relevant for this purpose a number of words based on the first table were chosen to be left out while counting. In a next step the most frequent words in the document were looked at and the words which seemed the most important regarding the content of the document were selected. As words can have (almost) the same meaning but can be written differently it was also looked for synonyms and related words in the document for the most frequent words. Subsequently it was searched for their frequency in the document. In addition, it was also tried to figure out in which context the most frequent words are mentioned, as this can give more background information. Moreover, it was also tried to group these words around a certain topic or category. Based on these previous steps conclusions were drawn. As counting the frequencies is the only quantitative part of this analysis and all the other steps which were taken are of quantitative nature, the whole approach is all in all more of a qualitative nature than of a quantitative nature.

In analysing the interviews the first step was to listen back to the recording and transcribe all of the interviews. The next step was to allocate codes to words, sentences and paragraphs of the interview by means of the programme Atlas.ti. These codes were based on the content of the interview and served to get a better overview over the content and the different topics discussed in the conversations. Finally, short summaries of all the interviews were created, which can be found in this document. In the last step, the table containing the different concepts and theories on the corridor concept in general played an important role. Based on this table the results of the interviews were written down in a tabular overview, structured according to the general table of concepts and theories.

3.4 Case selection

In this research it was chosen to take a deeper look first, on the city of Duisburg and second, on the province of Gelderland.

It was chosen for Duisburg in this research, because it forms an important end station for trains from China. Cargo trains from Chongqing, Wuhan and Changsha end in Duisburg (Doll, 2016). Furthermore, Li (2016) mentions already positive effects for Duisburg, which he sees as a result of the growing numbers of train connections between Duisburg and China. In his article Li (2016) focuses not just on the city of Duisburg, but also on its surrounding when he talks about the area in which the effects occur. Because Gelderland is a bordering province to the federal state of North Rhine-Westphalia, in which Duisburg is situated, it is interesting to have a look on what influences

there are also on Gelderland. In addition, Gelderland forms a central point in different other corridors and is also well connected to Germany by railway, motorway and water.

Furthermore, it could be possibly interesting for the government of Gelderland to participate more in the development of the corridor between Europe and China, if that would imply positive effects for the region.

4. China's perspective on the 'Belt and Road Initiative'

4.1 Short overview and motives of China

In the literature a lot of different arguments and speculations can be found about the reasons why China came up with the 'Belt and Road Initiative'.

Huang (2016) states that it has to do with the choice of America to exclude China in the recently made trade agreements, Trans Pacific Partnership (TPP) and Transatlantic Trade and Investment Partnership (TTIP). Therefore, according to Huang (2016), China is trying to tighten already existing trade partnerships and also to create new trade partnerships to make a statement to America. As evidence could be seen that China tries to build relationships with other countries which were excluded of the two agreements. The goal of China with this initiative could be therefore to form an opposition pole to the United States of America, or at least making clear that they don't depend on America.

Ferdinand (2016) distinguishes between two dimensions with regard to China's motivation for the implementation of the BRI. Firstly, the economic and secondly, the geopolitical dimension. With the geopolitical dimension Ferdinand (2016) supports the argumentation of Huang by also mentioning the TPP, but adds furthermore, frictions between Washington and Beijing about maritime territories.

The argumentation of the two authors regarding the TPP and TIPP no longer works, since Trump has got the new president of the United States and scrapped the TPP agreement end of January ("Trump kündigt TPP-Abkommen auf", 2017). In addition, also the negotiations related to TIPP are paused since Trump has been elected president, because he criticised already during his campaign multilateral trade deals (Kwasniewski, 2016). As a result the argument of China searching for new trade partners because of the exclusion in these agreements is not relevant anymore. Nevertheless, with regard to why China started the project it can still be named. However, it has become less important.

Ferdinand (2016) mentions with regard to the geopolitical dimension also the need of China to demonstrate that they can compete with the United States of America on the one hand, and on the other hand, China's step of shifting from the Pacific region towards the Western world, to broaden China's impact across the world. According to Lagutina (2017) also Li Xing emphasizes the geopolitical factors when thinking about the reasons for China to implement the BRI. Based on Li Xing, Lagutina (2017) suggests three factors which lead China to develop their own Eurasian strategy. Firstly, it is indicated that the emergence of different competing integration projects forced China to develop a strategy. Secondly, China wants to reduce its economic dependence on the Western countries and support flows of exchange also within Eurasia. Last, but not least, according to Lagutina (2017) Xing mentions the need of China to find a new impulse for its economy (Lagutina, 2017).

The last point mentioned in Lagutina (2017) links very good to the economic dimension of Ferdinand. Ferdinand (2016) argues that Chinese companies have invested a lot the past decades into big infrastructural projects within China. Now the projects run out and the companies need to search for other opportunities to invest in infrastructural projects. The best alternative is to turn abroad. Therefore the Chinese government expects that Chinese companies will be responsible for building the infrastructure included in the BRI (Amighini, 2017). At the same time Ferdinand (2016) says that the Chinese economy needs to turn away from investing to consumption. In this way,

searching for infrastructural projects abroad could also reduce the gap for the economy while transferring to consumption. This argumentation of the economic reason for China to set up the BRI is supported by Huang (2016), who argues too, that the Chinese economy has to find new ways to be able to grow through like in the past years. Therefore, Amighini (2017) argues that with the BRI China is also searching for new export markets. Also during the interview with PhD Acting Professor Yuan Li (personal communication, 2017, May 11) the domestic reason was emphasized. He explained that after growing for thirty-five years the Chinese economy now has reached its limits. Responsible therefore are different constraints according to Li (personal communication, 2017, May 11), such as among others environmental constraints, growth of labour costs and also resource constraints. For that reason China needs to update and transform its economy, which also means that the country needs a new model which promotes economic growth (Li, 2017). The reason for China to implement the BRI is because they are hoping to get some more time to arrange the transition of their economy, as according to Li (personal communication, 2017, May 11) it takes some time to transform an economy from manufacturing to a more technological intensive industry. Another point Li (personal communication, 2017, May 11) makes with regard to the domestic reason for implementing the BRI is the imbalance inside of China regarding the economic growth. At the moment economic growth is particularly focused on coastal areas in the East of China and on big cities, while the Western part of China is lagging behind. Through the implementation of the BRI China could rebalance its internal economic growth, because the initiative channels the economic growth also to the Western part through the implementation of railways (Li, personal communication, 2017, May 11; Amighini, 2017). These railways would form an alternative to the routes which are going by sea and are therefore just focused on the coastal areas (Amighini, 2017).

Moreover, when approaching the project from a more international perspective there is another reason which could be mentioned, namely the lowering of transaction costs in the longer run. This could make trade in the future easier and especially cheaper (Li, personal communication, 2017, May 11). At the same time this could be also seen as a goal of China with the implementation of the BRI.

Staying at the international level, Ferdinand (2016) states that China has not participated a lot in international affairs in the past. Regarding China's growing worldwide influence it is however obvious that the country needs to participate more in international economic affairs in the future, partly also because the international community already demanded so (Ferdinand, 2016).

In addition, Amighini (2017) states that with the BRI a goal of the Chinese government is also to strengthen the Chinese currency, the renminbi, in the world.

The last point Huang (2016) makes is that the current international economic system is outdated and because the usual ways to change things are working very slowly, China tries a new way to modify the system.

Interesting is also to include the official document 'Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road' published by the Chinese government. In this document China mentions very shortly a number of reasons for the implementation of the BRI. The first thing the document points to is the financial crisis, which still has big implications on the world economy. Furthermore, the document mentions big inequalities regarding the development of different parts of the world. These inequalities present problems to various countries which need to be solved. At the same time a lot of changes are taking place with regard to trade, investment and certain corresponding rules. According to the document the BRI forms a good framework to jointly address these difficulties (NDRC, 2015).

Concluding, it can be said that there are different views on the question why China decided to implement the BRI, but at the same time there is no clear answer. Even though there are some overlapping arguments, there is no consensus about the issue. Furthermore, it is not clear if the arguments mentioned above are really reflecting China's reasons. Although an official document which was published by the Chinese government is mentioned, it is still not clear if it really forms a good representation of the underlying reasons for China to develop the Chinese BRI.

In addition, the different views which were outlined above leave open the possibility that there are a lot of other arguments which are not mentioned here.

4.2 China's official document 'Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road'

Trying to understand what exactly the Chinese aim is with the BRI, the first step is to take a look into the official Chinese document which was released in 2015, called 'Vision and Actions on Jointly Building the Silk Road Economic Belt and 21st-Century Maritime Silk Road' (NDRC, 2015). In this document the Chinese government outlines their motivation, the aims and the mechanisms and priorities of the BRI (NDRC, 2015). They self state in the document that it was "published to promote the implementation of the Initiative, instill vigor and vitality into the ancient Silk Road, connect Asian, European and African countries more closely and promote mutually beneficial cooperation to a new high and in new forms"(NDRC, 2015).

A first attempt to approach the document was started by means of the programme Word Cruncher, which is part of the programme Atlas.ti. The programme counts the frequency of words mentioned in the document and presents the results in a tabular overview. As it is useful to see the frequency of words in relation to the whole document it is also important to know that the whole document counts 5.610 words.

The first time the programme was ran on the document a lot of stop words and prepositions were still in the list. As they are not relevant for this purpose following words were chosen to be left out while counting: and, the, of, to, in, for, on, up, as, at. These words were chosen based on the first overview of frequencies created with the programme. After leaving out stop words and prepositions the document counts only 4.145 words. In a next step the most frequent words in the document were looked at and the words which seemed the most important regarding the content of the document were selected. Thereby it was only focused on the words which at least had a frequency of 10, as lower frequencies are here seen as less important.

As words can have (almost) the same meaning but can be written differently it was also looked for synonyms and related words for these most frequent and most important words used in the document. Subsequently it was searched in the table for the frequency of the related words. The following table (table 2) gives an overview over the most frequent words in the whole document and their related words plus frequency for which was searched in the document:

Table 2: Most frequent words in the official document (author, 2017).

Most frequent words	frequency	Related words (frequency)
cooperation	128	collaboration (0)
road	108	roadmaps (2)
belt	77	-
China	47	Chinese (11)
economic	44	economy (9), economies (1)
initiative	37	action
trade	37	exchanges (19), exchange (7), business (3), commerce (2), trading (1)
development	35	develop (8), developing (2), developed (1)
international	29	global (4), globalization (1), worldwide (0)
mutual	27	jointly (20), common (9), joint (6), together (5), mutually (3), shared (3), collectively (1), collective (0)
investment	25	invest (1), investments (1), investors (1)
jointly	20	see mutual
exchanges	19	see trade
transport	13	transportation (3), move (1), transfer (1), transit (0)
financial	12	financing (2), commercial (1), financially (0), monetary (0), moneywise (0),
infrastructure	12	-
Chinese	11	see China

From the table it gets clear that with 128 times the word 'cooperation' is mentioned very often in the document. Followed by 'road' with 108 times, 'belt' with 77 times, 'China' with 47 times, 'economic' with 44 times, 'initiative' and 'trade' with 37 times, 'development' with 35 times, 'international' with 29 times, 'mutual' with 27 times, 'investment' with 25 times, 'jointly' with 20 times, 'exchanges' with 19 times, 'transport' with 13 times, 'financial' with 12 times, 'infrastructure' with 12 times and 'Chinese' with 11 times.

Noticeable is that the terms 'cooperation', 'mutual' and 'jointly' are named 128, 27 and 20 times, achieving a frequency of 202 added altogether with their related words. This indicates that China sees it as very important to develop and work together on the initiative.

When looking deeper into the context in which the word 'cooperation' is used already relatively at the beginning under the second paragraph of the principles the document states that the initiative is "open for cooperation" (NDRC, 2015, p. 3). 'Cooperation' is further also two times used in the context with peace (p. 2, 4).

Another big issue in the document is between whom cooperation is taking or should be taking place. Different actors are mentioned with this regard. It is talked two times about "cooperation with countries along the Belt and Road" (p. 12) and also one time about "cooperation among the countries along the Belt and Road" (p. 4). Furthermore, it is written about "cooperation between the East and the West" (p. 2), "bilateral cooperation" (p. 9), various times about "bilateral and multilateral cooperation" (p. 6, 8, 9), "international cooperation" (p. 3, 11) and especially also about "regional cooperation" (p. 3, 5, 9, 12, 13). The term 'cooperation' is also used together with other terms as for example with "interaction" (p.10), "communication" (p. 2, 10) and even "competition" (p. 11).

In addition, there are also different forms of cooperation mentioned in the document as for example "practical cooperation" (p.4, 5, 8, 9, 12) and "industrial cooperation" (p. 12). With regard to the "practical cooperation" different fields are mentioned in which this practical cooperation should take place.

Furthermore, also economic cooperation, especially with regard to the region, plays a big role in the document (p. 2, 3, 7, 11). Moreover, in the document it is stated that “key economic industrial parks” should be used as “cooperation platforms” (p. 4). Remarkable is also that it is talked about mutual benefit when talking about this economic cooperation (“cooperation and mutual benefit”, p. 2; “mutually beneficial cooperation”, p. 2, 3; “win-win cooperation”, p. 4, 13). Furthermore, in the official document a number of cooperation priorities (p. 5), cooperation mechanisms (p. 9) and cooperation projects (p. 12) are mentioned. The document thus gives indications on how cooperation should look like and how it should take place. Moreover, the Chinese side sees a lot of cooperation between various partners in the future. Remarkable is that it seems that the economic cooperation with regard to mutual benefit will be the most important aspect.

Going back to the other terms, it attracts attention that the term ‘road’ is mentioned more often than ‘belt’, although they are both mentioned in the name of the ‘Belt and Road Initiative’. Also ‘China’ and ‘Chinese’ were mentioned quite often, 47 times and 11 times respectively, which can be explained by the fact that the document was published by the Chinese government and therefore presents the Chinese perspective on the initiative.

Furthermore, remarkable is that the term ‘economic’ is mentioned 54 times (44+9+1) including the related words ‘economy’ and ‘economies’. In addition the word ‘investment’ is mentioned 28 times (25+1+1+1), including its related words in the document. Also ‘trade’ and its relating words ‘exchanges’, ‘exchange’, ‘business’, ‘commerce’ and ‘trading’ which achieve together a frequency of even 69, fit into this pattern, which encompasses words which are related to economy. The high frequency of economical terms fits into the pattern which was detected with regard to the use of the term ‘cooperation’, which states that in the whole document the economy plays an important role.

Also noticeable is that the word ‘initiative’ is mentioned 37 times, while the word ‘strategy’ and ‘strategies’ are together just mentioned 4 times. That would also support Li’s (2017) assumption that China uses the term ‘strategy’ mainly when talking in China and the term ‘initiative’ when referring to the project abroad.

The mentioning of the terms ‘international’ and ‘global’ states that China sees it as an initiative which includes countries worldwide. In addition also the term ‘development’ is with 35 times named quite often, which suggests that the whole BRI is mainly also a development project. But just from the frequency of the word ‘development’ it does not get clear in which context the word is used in the document.

Focusing on the words which have the most frequency and therefore clearly stand out, can give an indication of what are the most important aspects of the initiative in the Chinese perspective. Based on this first impression it is necessary to take a deeper look at the purpose of the BRI by means of analyzing the official document of the Chinese government further and incorporate also other literature in which aims are already discussed by different authors.

4.3 Overview of the BRI from the Chinese perspective

This overview of the BRI from a Chinese perspective will follow the official document ‘Vision and Actions on Jointly Building the Silk Road Economic Belt and 21st-Century Maritime Silk Road’.

When reading the official document ‘Vision and Actions on Jointly Building the Silk Road Economic Belt and 21st-Century Maritime Silk Road’ it quickly gets clear that the initiative is

particularly focused on economic development through advanced connectivity by improving infrastructure (NDRC, 2015). In the document it is written: “jointly creating an open, inclusive and balanced regional economic cooperation architecture that benefits all” (NDRC, 2015, p.3), emphasizing that this would be in the “interest of the world community” (NDRC, 2015, p. 3). In addition, it is written that the initiative wants to address the three continents of Asia, Europe and Africa and bring them closer together (NDRC, 2015). According to the document this could be achieved through setting up “connectivity networks” which then will help to “realize diversified, independent, balanced and sustainable development” (NDRC, 2015, p. 3) in the countries which join the BRI.

Connectivity networks

With regard to these “connectivity networks” (NDRC, 2015, p. 3) it is also important to mention that in the official document China mentions all types of infrastructure, ranging from road, ports, aviation, to energy and also communication infrastructure (NDRC, 2015). In addition, also Amighini (2017) emphasizes that the infrastructure mentioned with regard to the initiative not just includes physical infrastructure, but that especially digital connectivity also plays an important role.

Furthermore, it gets clear that these “connectivity projects” (NDRC, 2015, p. 3) are the main aim, as they form the base for the closer economic development and investment China aims at. The initiative has thus especially an economic character, which aims at win-win cooperation between China and participating countries (Li, 2017).

4.3.1 Principles of the Initiative

The official document states that the BRI “is in line with the purposes and principles of the UN Charter” in upholding “the Five Principles of Peaceful Coexistence” (NDRC, 2015, p. 3). Furthermore, Huang (2016) names four principles which the BRI follows and on which the cooperation between the different countries should be based: “openness and cooperation, harmony and inclusiveness, market-based operation, mutually beneficial and win-win for all countries” (p. 318). This is in line with the official document as also there these four principles are listed and further explained.

Nevertheless, according to Li (2017) it is not the aim of the initiative to develop formal rules and arrangements which can be applied consistent around the participating countries. Li (2017; personal communication, 2017, May 11) emphasized that the initiative is much more about voluntary cooperation and as a result setting up relations based on trust and mutual understanding.

4.3.2 Cooperation Priorities

As already got clear in the previous paragraph when counting the frequency of words used in the official document, cooperation plays a very important role in the BRI. In fact, also Li (2017) describes the initiative as a platform on which cooperation can take place in his article. Given that cooperation plays such an important role, in the document there are also couple of “cooperation priorities” (NDRC, 2015, p. 5) listed with the following five main sectors: “policy coordination, facilities connectivity, unimpeded trade, financial integration and people-to-people bonds” (NDRC, 2015, p. 5).

Policy coordination

In the document it is stated that the BRI forms an extension of the Chinese opening-up policy, with the aim to further get involved into the global economy system (NDRC, 2015).

Li (2017) states that China's aim is to promote its integration into the global economy and if the initiative succeeds this would give China a whole new position in the international community.

Moreover, Huang (2016) and Wang (2016) state that it is also a crucial issue of the initiative to strengthen political relations between different governments. This will be also an important point in realizing the SREB, because China is not able to finance the whole project on its own. Instead, they need the support of other governments, because otherwise the whole plan will fail.

Wang (2016) and IDI (2016) see policy coordination even as the basis for reaching other goals. The governments of the different countries have to work closely together in developing economic strategies and also need to support the coordination if the project should be realized. Therefore strengthening political relations forms the foundation (IDI, 2016; Wang, 2016).

Connectivity of facilities and trade

Connectivity of facilities and unhindered trade can be put together and describe then the improvement of infrastructure between the different countries and also the arrangement of some standards which would lower existing (trade) barriers (NDRC, 2015).

This is also confirmed by Huang (2016) and Wang (2016) which write that trade forms a key point of the initiative and the aim is to make trade easier between the participating countries by, for example, remove trade barriers and develop free trade zones. The same stated Li (personal communication, 2017, May 11) during an interview which was conducted, also saying that the BRI can reduce restrictions, bans and institutional barriers, which lead to reduced transaction costs. Amighini (2017) supports this argument, too. She states that China as the biggest trading nation in the world of course is interested in reducing export costs (Amighini, 2017). All in all these strategies should strengthen the commerce between the different countries and thereby also strengthen the positions of the countries within the international economy (Huang, 2016; Wang, 2016).

Huang (2016) and Wang (2016) mention also the aspect of sustainability in this perspective, as according to them the BRI should also draw attention to a more sustainable way of trade with regard to climate change. This plays particularly a role in extending and planning new infrastructure (Huang, 2016; Wang, 2016).

Financial cooperation

To make the BRI a success also financial cooperation is needed (Huang, 2016; Wang, 2016), which at the same time also forms the fourth point of the five goals of the 'Belt and Road Initiative' (NDRC, 2015). China established for this reason the Asian Infrastructure Investment Bank (AIIB), as well as some funds as the 'Silk Road Fund' and the 'China-ASEAN Investment Cooperation Fund'. Nevertheless, China still depends on the support of other governments to be able to realize the OBOR (Huang, 2016; Wang, 2016).

People-to-people exchange

Regarding all these different priorities the fifth goal, the people-to-people exchange plays an important role. The initiative for this reason wants to set up cooperation on academic, cultural, social and also political level (Huang, 2016; Wang, 2016). In the document there are furthermore, student exchanges, cooperation with regard to tourism, sport exchanges, cooperation with regard to

public health and health service, cooperation regarding technology and science, communication with regard to politics, cooperation between cities, and cooperation between research organisations mentioned. Finally, it is also stated that the “people-to-people bond provides the public support for implementing the Initiative” (NDRC, 2015). This is also supported by Li (personal communication, 2017, May 11), who emphasized that cross-cultural communication forms the base for deeper economic cooperation.

Summarizing, Huang (2016), Dong et al. (2015) and Wang et al. (2015) state that all these five goals could be outlined as increased connectivity for the creation of strong cooperation between different countries, which are based on increased trust and understanding, and the promotion of economic growth to provide development and wealth among the countries of Asia, Africa and Europe.

Security

Beside the five major goals of the initiative the official document also mentions the aspect of security (NDRC, 2015).

Amighini (2017) states in her book with regard to this issue that this includes the security of humans, as well as a secure access to energy, as China’s energy demand has increased a lot the last decades. Also Indeo (2017) picks up on this aspect and further adds the point of political stability. He argues that from “a Chinese perspective, the security dimension is strictly correlated to economic and development issues” (Indeo, 2017, p. 47). At the moment there are especially in Asia insecure regions. Economic growth in the region could lead to wealth, which would lead to more political stability and as a result to more security for China as well as for the whole region (Indeo, 2017). This argument is also supported by Fasulo and Talbot (2017) who say that the promotion of globalization fits into China’s pattern of achieving security through economic cooperation. Indeo (2017) thus concludes with: “Even if the Silk Road initiative has an economic rationale, China also aims to achieve energy and geopolitical goals within a security and stability scenario.” (Indeo, 2017, p. 50).

Uniqueness

The unique thing about the whole project is that it doesn’t try to exclude other countries. To the contrary, the OBOR initiative is receptive to other countries who are interested. The government of China even invited countries like Japan and Korea to be part of the initiative. This is quite special compared to other international partnerships and cooperation projects which focus normally just on specific parties (Huang, 2016).

In conclusion, it can be said that it is not that easy to describe what the BRI is exactly about, as it encompasses various aspects. Anyway, the most important are the infrastructural and economic aspects, as they form the underlying main aims of China with this initiative.

4.4 Funding: Asian Infrastructure Investment Bank (AIIB)

As mentioned already, China has set up a number of funds and other institutions trying to secure the financing of the BRI in the future. Examples therefore are the Silk Road Fund and also the Asian Infrastructure Investment Bank (AIIB).

Casarini (2016) writes that the total Chinese investment most likely will reach USD 1.4 trillion, including USD 40 billion for the Silk Road Fund and even USD 100 billion initial capital for the

AIIB. ECFR and Asia Centre (2015) in contrast, talk about a sum of money of USD 50 billion for the AIIB and another USD 10 billion to another bank, the so called BRICS-led New Development Bank.

Especially the establishment of the AIIB is seen as something innovative and new, as this development stands for the restructuring of the global multilateral financing (IDI, 2016). Richet, Ruet and Wang (2017) see the AIIB already as “an alternative to the traditional Western-institution-led development financing” (p. 119). The Bank was set up in January 16, 2016 (AIIB, n.d.a) and 57 countries have joined the AIIB as founding members (IDI, 2016), under which 14 European countries, such as Britain, Germany and France (Minghao, 2016). The founding members’ votes will count more than the votes of the countries which will join the bank later (IDI, 2016). In June 2016 there were already 30 countries waiting to join the AIIB, but they will thus not have the same status as the founding members (IDI, 2016). Moreover, it is interesting that China holds 26,02% of the voting share and owns around 30% of the bank’s shares. Compared to the other founding members, China has thus by far the largest voting share. It is much larger than that of any other country and even added together are the voting shares of the biggest shareholders smaller than the one of China. However, China’s Deputy Finance Minister Shi Yaobin said that China’s veto share will decline as more and more countries join the AIIB (IDI, 2016).

On the website of the AIIB among others the core principles of the bank can be found, which are described as “openness, transparency, independence and accountability” (AIIB, n.d.a). Also the working of the bank is outlined and according to the bank it is best summarized by the phrase “Lean, Clean and Green” (AIIB, n.d.a). The core principles and the way of working state that the AIIB is attentive to the environment and very fair and honest in its working. This fits into the overall depiction of the BRI. Nevertheless, these statements should be viewed with certain caution, as the website of the AIIB is a self-description of the bank. Consequently, the question remains in how far this description actually forms a representation of reality.

The main focus of the AIIB lies in providing funding for the infrastructure projects included in the BRI. Ideo (2017) agrees with this assumption and calls the AIIB a powerful tool of China to develop its BRI. Furthermore, also Fasulo and Talbot (2017) describe the AIIB as the main financing institution for realizing the infrastructure projects which are an important part of the BRI. On the website of the AIIB this is elaborated in more detail. On the website the AIIB calls itself a “infrastructure investment bank”(AIIB, n.d.b) and outlines further that the bank finances “sound and sustainable projects in energy and power, transportation and telecommunications, rural infrastructure and agriculture development, water supply and sanitation, environmental protection, urban development and logistics” (AIIB, n.d.b). Also Minghao (2016) states that in the understanding of the AIIB infrastructure includes more than the fundamental facilities and therefore also health and education are associated with infrastructure according to the AIIB. Therefore the AIIB will also invest in these areas, as they are important for a sustainable development (Minghao, 2016). In financing projects the AIIB will work together with other Chinese institutions, but also with national and European institutions, as the World Bank, the European Investment Bank and the European Commission (Minghao, 2016).

However, there are also more pessimistic voices about the AIIB. According to Kratz (in: ECFR & Asia Centre, 2015), Wang claims that the fact that the joined members differ a lot from each other could lead to problems in the future. Kratz writes further that he refers particularly to the “development, values, faiths and overall expectations” (Kratz, n.d., in: ECFR & Asia Centre, 2015, p. 16) of the different countries. Therefore according to Kratz, Wang states that an important task for

China will be to bring the different countries together and find commonalities, which can be used as a basis for further cooperation (Kratz, n.d., in: ECFR & Asia Centre, 2015).

4.5 Current issues: Conference

Recently, the Chinese president Li Jinping invited a lot of countries and world leaders to join him in the 'Belt and Road Forum' which was held on 14th and 15th of May in Beijing (Bingxing, 2017). As the forum presented a very big event for China in general and as it was at the same time also the biggest event until now with regard to the BRI it was heavily promoted by the Chinese government (Dorloff, 2017; Lei, 2017). Representatives from more than 130 countries under which 29 foreign heads of state and government and more than 70 international organizations attended the forum (Bingxing, 2017; "68 Länder", 2017; "China investiert Milliarden", 2017). Under the attendees were also leaders of the UN, the World Bank, the International Monetary Fund, the Russian president Vladimir Putin and the Turkish president Recep Tayyip Erdogan (Bingxing, 2017; "China investiert Milliarden", 2017). Bingxing (2017) criticizes that the most heads of state and government were from developing countries, because the most Western countries sent politicians from lower level and not the heads of state and government. Also Germany did this, by sending Brigitte Zypries the German Federal Minister of Economy, while Angela Merkel, the Federal Chancellor, did not join the forum ("68 Länder", 2017). The fact that developing countries sent their head of state and government and that developed countries mostly sent politicians of lower levels, indicates that the countries put different importance to the BRI, according to Bingxing (2017). Related to this Bingxing (2017) argues that developing countries depend more on construction of infrastructure and other investments, which are the main aspect of the BRI. Developed countries however, are also interested in further development, trade and potentially resulting economic profits, but they are not that dependent on these investments as developing countries are (Bingxing, 2017). Therefore, the BRI seems much more interesting for developing countries than for Western countries (Bingxing, 2017).

In addition, not only countries from Asia, Africa and Europe, which were officially addressed by the BRI earlier, were participating in the forum, but also countries from North America, Latin America and Oceania joined the forum (Bingxing, 2017). This supports China's claim that the BRI is an open initiative which everybody is free to join. Surprisingly also delegates from the United States and North Korea attended the forum (Leng, 2017). North Korea launched again a missile shortly before the starting of the forum much to the annoyance of the international community. The United States under Trump were always supporting the direct opposite, namely protectionist economic policy, of what China wants to reach with its initiative ("China investiert Milliarden", 2017). Consequently, Japan is the only country with a big economy, which did not join the forum (Ankenbrand, 2017).

The first day of the forum was started by an opening ceremony followed by a High-level plenary meeting and afterwards Conferences took place. The second day was completely focused on the Roundtable summit (Xinhua, n.d.). During the forum Chinese president Jinping advocated for more free trade, as according to him trade is the most important component for economic development ("China investiert Milliarden", 2017). At the same time the Chinese president spoke against protectionism, as "isolation would lead to backwardness" ("China investiert Milliarden", 2017). Russian's president Putin and also the Turkish president Erdogan support the plans of the Chinese president ("China investiert Milliarden", 2017). Erdogan stated that his country is really

interested in working together with China and other countries involved in the BRI (“EU riskiert Eklat”, 2017). At the end of the second day of the forum a joint communiqué was released (Lei, 2017). 68 countries and international organizations signed agreements with China for cooperation and the jointly development of the BRI in the future (Leng, 2017; Cai, 2017). However, not all have signed the communiqué. European countries under which Germany, Britain and France demand that the document should include guarantees on free trade, transparency, fair competition as well as social and environmental standards. As these statements were not included the countries refused to sign the communiqué (“68 Länder”, 2017; “China investiert Milliarden”, 2017; “EU riskiert Eklat”, 2017; Cai, 2017).

Nevertheless, at the end Chinese president Jinping called the forum a success (Cai, 2017) and announced that the countries succeeded to “set up a stable and sustainable financial support system with risk controllable” and furthermore, “agreed on broader channels, innovative methods and lower financing costs” (Lei, 2017). Cai (2017) adds that in the communiqué it is written that the countries will promote “practical cooperation on roads, railways, ports, maritime and inland water transport, aviation, energy pipelines, electricity and telecommunications to boost growth, and work on a long-term stable and sustainable financial system” (Cai, 2017). Furthermore, Jinping promised in his speech that China “will not pursue any political agenda or make exclusive arrangements” (Lei, 2017). Furthermore, the president emphasized that “green and low carbon development” will play an important role and will be supported (Lei, 2017). At the end Jinping also announced that the next ‘Belt and Road Forum’ is planned for 2019 in Beijing (Cai, 2017; Leng, 2017).

China has thus begun to actively promote its plans, give countries an understanding of the BRI and started to involve the interested countries in the initiative.

4.6 Current issues: Visit

Only two weeks after the ‘Belt and Road Forum’ in Beijing China’s Premier Li Keqiang visited Berlin for two days and had a meeting with the German Chancellor Angela Merkel (The State Council of the People’s Republic of China, 2017). After a meeting both agreed on supporting more cooperation between Germany and China. In addition, the two countries have reached an agreement on strengthening free trade. Both leaders emphasized that in a world with a lot of uncertainties it is important to strengthen the relationship between the two countries to support stability and peace. Moreover, the Chinese Premier stated that China supports Germany in hosting the G20 summit, which forms the possibility to send some positive news into the world (The State Council of the People’s Republic of China, 2017). Related to the meeting German and Chinese companies forged some new cooperation projects, under which Daimler, the Chinese company BAIC and Airbus (Tagesschau, 2017). After his stay in Germany Premier Li Keqiang went further to the EU-China Summit in Brussels.

With regard to these meetings it gets clear that China and Europe are trying to improve their relationship, which could be also very important for the further development of the BRI.

5. Europe's perspective on the BRI

5.1 Expectations and policy recommendations in Europe

On the one hand there is the Chinese perspective on the BRI, which is even written down in an official document. On the other hand there are the different countries of Europe, which do not have a jointly opinion on the BRI. Much more the various European countries have different opinions about the BRI (Richet, Ruet & Wang, 2017) and therefore also deal with it in different ways. Until now there has not been a "comprehensive strategic approach" on the side of the EU (Richet, Ruet & Wang, 2017, p. 100). Nevertheless, according to Richet, Ruet and Wang (2017), especially Western Europe should be seen as having an important role in the BRI as the railways from China all end there. The three authors (2017) mention further the examples of Hamburg, Duisburg and Lyon, where city governments actively react to the opportunities of the BRI and therefore try to attract Chinese investments.

Especially the French city forms an interesting case, as the railway which first ended in Duisburg was finally extended to Lyon in April 2016 (Richet, Ruet & Wang, 2017). Although the French national government neither has a clear position towards the Chinese initiative nor a strategy the city of Lyon "seeks opportunities to attract Chinese investment and open the Chinese market" (Richet, Ruet & Wang, 2017, p. 105). In this regard the local authorities of the city have played a significant role, as Seaman (2016) states. The city of Lyon succeeded in promoting its image as a historical 'City of Silk', as well as its importance regarding trade and politics in Europe (Seaman, 2016; Richet, Ruet & Wang, 2017). Despite or maybe exactly because of the success of Lyon, it is very difficult to find more information on how exactly the city managed to get involved in the Chinese initiative, at least in the English, German and Dutch literature.

Although there is no common strategy in Europe until now, Amighini (2017) formulates a number of policy recommendations for the EU as a whole. Firstly, she states that "the broad scope of the BRI deserves a much higher political-level dialogue between the EU and China" (Amighini, 2017, p. 142). The author argues that Europe needs to communicate much more with China if they do not want to be excluded from all the different projects which are happening. As China is very actively promoting its initiative to other countries Europe needs to participate more if they want to be involved in decisions. Secondly, it is stated that the BRI forms an alternative to the European led strategy to approach Eastern Europe and Central Asia. Instead of passively watching how the existing system is changing, Europe should take part in the negotiations between the former Soviet states and China (Amighini, 2017). Thirdly, problems could emerge with regard to the '16+1' platform. On this platform both EU members and non-EU members cooperate with China in its initiative. The problem is that EU members have to deal with other rules and regulations than non-EU members. Therefore the non-EU members could experience advantages, as they do not have to deal with such strict regulations. This could form a possible threat for the solidarity within the EU. Therefore the EU should be aware of this possible problem and address it if necessary (Amighini, 2017). Fourthly, Amighini (2017) argues that the EU "should seriously consider the consequences of the lack of a common framework for bilateral investment with China" (p. 143), as China is already heavily investing in European countries. Finally, Amighini (2017) states that the BRI should be acknowledged, but that the EU should pay attention that the alliance of the different countries to reach jointly goals remains central.

Summarizing, it can be stated that until now there is not a common strategy for the BRI within Europe. Not surprisingly therefore the responses from the different countries are very different. Remarkable hereby is that some regions succeed in attracting Chinese investments and getting involved in the BRI without the contribution of the national government. Despite the missing common approach, Amighini (2017) formulates policy recommendations for the EU as a whole and calls for more communication with China.

5.2 Gelderland's perspective on the BRI

To get a better understanding of the perspective of the province of Gelderland on the Chinese BRI an interview with Joost Roeterdink was conducted.

The main outcome was that the province of Gelderland has not developed a clear strategy until now on how to deal with the BRI. Also the national government does not make it easier for the province, as they have not developed a strategy either and leave it open to the regional governments. Joost Roeterdink thinks that they probably see the BRI even as a threat, as the national government is focused on the port of Rotterdam and does not want to experience losses because more trade is transported by train. Although the province thus has not yet a clear strategy still they are very active on different fields and have already approached various actors.

Firstly, the province is involved in different corridors: the Gelderland corridor, the Rhine-Alpine corridor and the North-Sea Baltic corridor, which indicates a good connectivity of Gelderland, as already stated above.

Besides, the province is working on the 'Rail Terminal Gelderland', a project that aims to improve the involvement in the freight transport. Related to this is the 'European Rail Freight Line System' (ERFLS), where the province is also involved. This is a European project, which aims to support a better connectivity between different terminals to make transportation of goods easier and is situated in the Rhine-Alpine corridor. Therefore there are various European actors involved, which work together in the European Grouping of Territorial Cooperation. For the ERFLS a delegation of the province of Gelderland has already been to the 'duisport Group', which is made up of the Duisburger Hafen AG and its subsidiaries (Duisburger Hafen AG, 2017), to take a look on how the system could be improved there. Nevertheless, the BRI was not a topic during this visit.

Moreover, the ERFLS forms not the only project in which the European actors work together. Other projects are for example the project 'Liquid Natural Gas' and RAISE-IT ('Rhine-Alpine Interregional Seamless and Integrated Travel Chain'). The project Liquid Natural Gas was focused on clean fuel in the transportation of goods. Unfortunately, the draft was rejected and now they are busy to improve the draft further. The project RAISE-IT is about improving the connection between international and regional train traffic, so that passengers can directly take a connecting train and do not have to wait too long. There are thus a couple of projects in which the province of Gelderland already works together with European partners, among which also duisport, which is also lid of the EGTC. These projects could possibly form a starting point or a jointly approach with regard to the BRI.

In addition, the province of Gelderland has already talked to WAE Logistics, which is the rail operator for the train between Duisburg and Wuhan. A delegation of WAE logistics has also been visiting the province in Arnhem. According to Joost Roeterdink they are especially interested in trade.

Another project the province of Gelderland is developing is the 'Project New Ways Gelderland'. With this project the province wants to bring different companies together which are interested in exporting their product to China. If there is enough demand, a container can be booked jointly and products can be brought to China by train. For this purpose the province developed the 'We Connect App', which makes it easier for companies to show their interest and how much of their products they want to transport to China.

While the province has not yet a strategy for the BRI, they will have a strategy for the Gelderland corridor, which they also want to show to China. Furthermore, a trade mission to China with a number of companies and representatives of the province is scheduled. The aim of this trade mission is to not just look on China from the side of logistics, but also from the side of trade.

Joost Roeterdink further emphasizes that Duisburg might play an important role for Gelderland with regard to the BRI. He tells that delegates even said that if the province would like to do something with regard to the BRI, they should do it together with Duisburg. But again, Roeterdink stresses that there is not yet a strategy developed with regard to the BRI. However he emphasizes the importance of being well connected to the international network. The province is thus still searching for the best way to approach the BRI and tries to keep different possibilities open.

Richet, Ruet and Wang (2017) state with regard to the Netherlands as a whole that the country is one of the largest trade partners of China in the EU. Both by ship and via the air the Netherlands are well connected to China. Moreover, one third of China's exports for the EU are entering the EU via the port of Rotterdam. As the Netherlands form an important trade partner of China it is not that unlikely to think that the relationship between the Netherlands and China will also last in the future. With regard to the BRI the trade could develop more into the direction of trade via rail in the future. The location of Gelderland near Duisburg where already a connection to China is available could therefore constitute possibilities for the province.

In summary, the province of Gelderland has not yet a strategy on the BRI. Nevertheless, the province is very active in different corridors and Joost Roeterdink also argues that it is very important to be well connected to the international network. Moreover, he thinks that Duisburg will play an important role regarding the BRI in the future, also for the province of Gelderland. He hopes that with the realization of the planned Rail Terminal in Gelderland the involvement of the province in the freight transport will be improved and as a result also the connection to Duisburg will be strengthened. All in all he thinks that the province of Gelderland will be involved in the BRI in the future. This view is also shared by Richet, Ruet and Wang (2017) who are emphasizing that the Netherlands are one of the largest trade partners of China, which indicates that also in the future this relationship will last.

6. Results of expert studies and interviews

6.1 Expert study: Effects of the BRI on Duisburg

Yuan Li (2017) mentions in his article 'Railways of the New Silk Road', which was published in the Baltic Journal, already visible effects of the BRI on the city of Duisburg. When comparing Li's article with the table in the theory section (see table 1, pp. 24-25), it gets clear that Li talks about a lot of effects which are also listed in the table. Therefore it is possible to assign the aspects Li mentions to the table created earlier. The results of this can be found in table 3. Yuan Li talks about aspects in the economic, spatial, subjective and policy dimension. However, he does not speak about the infrastructure and environmental dimensions.

Firstly, Li goes into the economic effects. He mentions "direct import and export benefits for Duisburg, as well as for its surrounding areas" (Li, 2016, p. 41). These benefits are related to an increased GDP. As he writes that the benefits are not only appearing for the city of Duisburg, but also for the surrounding areas, the author indicates the spatial dimension, particularly the distribution of the effects. Also the "local employment" (p. 41) Li (2016) describes belongs to the economic dimension, namely to job generation on the labour market. Li mentions that the railways are "direct connections" (Li, 2016, p. 41) which make it possible to connect Germany with China in a "quick and inexpensive way" (Li, 2016, p. 41). He hints at the improved accessibility and decreased transaction costs, which lead to an increased number of Chinese companies in Duisburg. He also mentions this aspect directly by stating that: "rail operation across the New Silk Road has generated positive external effects on reducing institutional barriers, hence helped in bringing down transaction costs and loosening other restrictions on economic activities" (Li, 2016, p. 40). Latter describes structural changes in the economy. The reduction of institutional barriers is an effect which is also mentioned in the literature, belonging to the dimension of policy. As Li (2016) mentions this dimension with regard to economic aspects, in the table the reduction of the institutional barriers are situated next to the economic dimension. Another dimension Li (2016) emphasizes is the subjective dimension. Li (2016) writes that "after establishing the new railway service, and especially after the official visit of President Xi Jinping to Duisburg, a lot of Chinese local governments (...) want to establish some sort of cooperation ties with Duisburg, and quite a number of Chinese companies have increased their investments in this region" (p. 41). The subjective image of the Chinese people has changed. First they probably were not really aware of Duisburg, but now after the visit of their president and a lot of media attention, more and more Chinese companies get interested in the city, which leads also to an increasing number of Chinese tourists (Li, 2016). In addition, Li describes also cross-cultural communication and exchange of ideas as very important effects, as they can generate mutual understanding which can be advantageous for both parties in working together.

Table 3: Effects on Duisburg mentioned in Li (2017) (author, 2017).

Dimension	Resulting effects		Indicators	Li	Policy/ Governance
Infrastructural/ transport					
Economic	Accessibility	Direct		Decrease transaction costs	Reducing institutional barriers
		Indirect	Changes in attractiveness of location	More Chinese companies	
	Labour market	Job generation	Employment	Local employment	
		Structural changes		Loosening restrictions on economic activities	
	Gross Domestic Product (GDP)			Direct import and export benefits	
Spatial/ urbanisation	Distribution of effects			Economic benefits for city of Duisburg as well as for surrounding area	
Environmental					
Subjective	Image			Growing Chinese interest in Duisburg, more tourists	
	People-to-people exchange			Cross-cultural communication, exchange of ideas	

In table 3 the effects mentioned in the article written by Li are illustrated. The effects mentioned are all focused on the city of Duisburg and its surrounding area. Conspicuous about the effects listed is that they are especially focusing on the economic dimension and even the effects mentioned in the spatial and subjective dimension are related to the economic dimension. Li does not mention the infrastructural and environmental dimension at all in his article.

6.2 Main findings of the interviews

The interviews which were conducted were afterwards analysed and compared with the table of the theory section. The main results of each interview are described here and for every interview also a table was created which shows the coinciding effects with the theory section.

6.2.1 Joost Roeterdink

As already mentioned, the interview with Joost Roeterdink was mostly held to get to know more about the perspective of the province on the BRI. Therefore it was not that much talked about effects of the BRI on Gelderland. Nevertheless, with regard to general effects of corridor developments on their surrounding Joost Roeterdink confirmed the importance of some of the dimensions (table 4).

According to him economic benefits and the improvement of accessibility of goods and people are the most important effects of corridor developments. That is also why the province does not approach the BRI just from the point of view of logistics, but also from the viewpoint of trade. Moreover, according to him the reliability of transportation by ship from China is low, which is why companies want to have alternatives on transporting their goods. Therefore the way via rail could form a good possibility. Regarding accessibility he mentions that it is essential to have a good connection to the European networks, as this is connected to the international network and thus China. If you are not connected to the European network, you could also miss the chance to be involved into the international network.

With regard to the TEN-T approach he mentions also sustainability, as making traffic more sustainable is an important aspect within this approach. The main aim is thereby to reduce air and noise pollution, effects which are also mentioned in the table of the theory section. This confirms again that these aspects are essential with regard to the consequences of corridor developments.

Looking at the dimension of the image, Roeterdink thinks just like Vickerman (1994a) that governments can strengthen the image of a corridor development in the public sphere. He calls it 'acceptance'. According to him, governments can create a greater acceptance of a corridor project among the public through cooperating with them. Therefore he states that it is very important that the government includes the public in the planning and other decisions and that the project is not just seen as an infrastructural project. Much more the project should be seen as a project which takes into account the broader picture, as for example also the surrounding. Furthermore, governments and policy can support the sustainable development of infrastructure.

In the future Joost Roeterdink would wish that the Rail Terminal in Gelderland, which is still in development, could make Gelderland a place where goods are not just transferred through, but where they also remain to be worked on. Furthermore, he states that according to his opinion the settlements of Chinese companies in Duisburg and its surrounding area will also spread till Gelderland. In addition, he emphasizes that it will be also important in the future to be connected to the international network if you want to develop as a region. Finally, it would be great if Chinese investors would be interested in the Rail Terminal and would be willing to invest in it, to strengthen the relationship between Gelderland and China.

Taken together, Joost Roeterdink mentions especially a lot of general aspects with regard to corridors from the viewpoint of governments. Furthermore, he expresses expectations and wishes from the province of Gelderland with regard to the BRI in the future. According to him the Rail Terminal could form a good starting point to benefit from already ongoing developments. Moreover,

he expects that Gelderland will be more involved in the future in developments and effects of the BRI with regard to Duisburg.

Table 4: Effects of corridors on their surrounding mentioned by Joost Roeterdink (author, 2017).

Dimension	Resulting effects	Indicators	Roeterdink	Policy/ Governance
Infrastructural/ transport	Accessibility		Improved accessibility of goods and people (also ICE, airports)	
Economic	Gross Domestic Product (GDP)		Economic benefits through increasing trade	
Spatial/ urbanisation				
Environmental	Pollution	Noise	Noise	Can support sustainability
		Air/ atmosphere	Air	
		Vibration		
Subjective	Image	Media		Can support the acceptance among the population through cooperation
		Policy		

Joost Roterdink mentions more generally applicable effects for corridors. Therefore he talks about infrastructural and environmental effects. Besides, he also explains the possible role of governments regarding corridors.

6.2.2 PhD Acting Prof. Yuan Li

The interview with PhD Acting Prof. Yuan Li was conducted to get a better understanding of what is happening in Duisburg with regard to the BRI and what are already occurring effects.

Yuan Li sees in the BRI especially a possibility for other countries, developing as well as developed countries. For developing countries the BRI forms a chance, as China is willing to invest in infrastructure. As these countries mostly lack transport infrastructure this forms a chance for them to get into new markets. For developed countries the BRI also brings new opportunities, as the trading potentials have not fully been triggered out related to barriers. Consequently, with its initiative it is also an aim of China to reduce these barriers to make trade more easily. Furthermore, after the financial crisis, Europe has still no high demand of products and there is nothing new on the market, except for China. Therefore China could form a new market for European products and as a result increase the demand. For these reasons Yuan Li sees in the BRI particularly an opportunity for Europe.

Moreover, Li describes the BRI as an open platform which everybody is free to join. According to him the initiative is not very formal and concrete, with the only exception of the AIIB.

As the BRI is an open platform everybody who wants to join it can participate, but nobody is committed to do so.

Li also comments on the city of Duisburg and states that Duisburg has a good accessibility, because it has the largest inland port in Europe and a very good infrastructure network. Furthermore, in North Rhine-Westphalia there are a lot of industries settled and there is demand for Chinese products.

Li also assumes that the markets of West Germany and the Netherlands are merged, forming a common market. He thinks that cooperation between Duisburg and the Netherlands could make the region stand out. Also because compared with the size of Chinese cities the city of Duisburg is really small. Therefore he thinks the whole area should work together, combine its resources and power to get more influential and important.

When comparing the table of the theory section with what Yuan Li told during the interview, it gets apparent that Yuan Li mentions a number of dimensions which are listed in the table (table 5). Regarding the infrastructural dimension Yuan Li states that it is important to reduce administrative barriers to increase the accessibility by rail even more. Because of these barriers trade is restricted. Moreover, Li states that the railway between Chongqing and Duisburg has increased the direct accessibility, which has led to a reduction in costs of doing business. In addition, Li mentions also knock-on profits which appear, because of the increased accessibility. These are indirect effects, such as local employment, which are related to the labour market. The growing economic activity has resulted already in direct import and export benefits for Duisburg and its surrounding area, which result in spatial effects. Another point Li makes is that economic exchange is certainly very influential also on the cultural exchange. He argues that when you do business you start to get to know the other country and their products, which finally also influences the trade between the two. This cross-cultural exchange includes people-to-people exchanges, cultural exchanges, educational exchanges, cultural events, exhibitions and also exchange of goods.

Li did not mention any specific effects regarding the environmental dimension, but emphasised that the environmental aspect is very important for China realizing the BRI. He argues that the environment is a top priority for China, because pollution not just has economic consequences, but could also result in political instability, as there are already a lot of protests by the Chinese population. In general such big infrastructure projects always contain certain risks for the environment.

According to Li the media plays an essential role in influencing the public's opinion about the BRI. In the beginning the media did not present a very positive image of the BRI. Otherwise people would not be that sceptical and would not exist that many misunderstandings towards the Chinese initiative. But the image presented by the media has changed and according to Li the media started to notice the importance of the BRI. Furthermore, also on the side of China the media has played an important role. Through the visit of the Chinese president to Duisburg and the related media attention, Chinese people got interested in Duisburg and while informing themselves more about the German city they find comparative advantages. Therefore Duisburg as a location is very interested for Chinese companies and also tourists are attracted. However, not just the media plays an important role, but also the local government is working really hard to attract Chinese investments.

Li specifies the above already mentioned people-to-people exchange further. According to him people-to-people exchange can reduce barriers through mutual understanding, which deepens

economic cooperation. Furthermore, trust and cooperation are based on people-to-people exchange.

Yuan Li also talked about the role of governments and policy. As already mentioned, governments can help to attract people and companies. He mentions the example of the city government of Duisburg, where the mayor is very busy receiving delegations from China. Moreover, the North Rhine-Westphalia and China together co-organized a cultural exhibition, one year in Germany and the upcoming year in China. But the most crucial issue sees Li for governments in facilitating the opening to these new transportation lines and cooperation projects. This facilitation includes a reduction of a lot of administrative and institutional barriers, like costs of trade or infrastructure which is adapted to each other, to make trade easier. Therefore governments can also conclude agreements with each other. A result is that it becomes more attractive for companies to start trading.

Finally, Yuan Li states that governments should quickly make a decision with regard to the BRI as otherwise the opportunity could be gone.

Summarizing, Li describes the Chinese initiative as an open platform which forms a chance for other countries and especially also as an opportunity for Europe. He also talks about the city of Duisburg and emphasizes particularly the economic and subjective dimensions with regard to effects of the BRI in Duisburg. Thereby he makes a difference between effects which are already happening in Duisburg and effects which could show up in the future. Regarding expectations of the city of Duisburg he states that cooperation with Gelderland or the Netherlands in general is possible in the future. Moreover, he stresses the importance of the city of Duisburg also in the future with regard to the BRI.

Table 5: Effects on Duisburg mentioned by PhD Acting Prof. Yuan Li (author, 2017).

Dimension	Resulting effects	Indicators		Li	Policy/ Governance
Infrastructural/ transport	Accessibility				Reduce administrative and institutional barriers
Economic	Types	Direct			Reduce administrative and institutional barriers
		Indirect	Wider economic impacts	Knock-on profits such as local employment	
	Accessibility	Direct		Reduction in costs of doing business can create new markets	
		Indirect			
	Labour market	Job generation	Employment	Knock-on profits such as local employment	
	Gross Domestic Product (GDP)			Direct import and export benefits for Duisburg and its surrounding area	
				Economic exchange stimulates cultural exchange (you do business with one country, start to get to know them better)	
Spatial/ urbanisation				Direct import and export benefits for Duisburg and its surrounding area	
Environmental				Very important to pay attention to	
Subjective	Image	Media		Plays big role in influencing public's opinion	
				Chinese people get to know Duisburg and get interested, find comparative advantages	
	People-to-people exchange	Cultural exchange		Cultural events, exhibitions	Reduce barriers through mutual understanding
		Academic exchange		Educational exchange	
				Trust and cooperation lead to deeper economic cooperation as barriers are reduced and you better get to know the products of the other	

The table gives an overview over the different dimensions Li referred to in the conversation. The man talked most notably over economic effects and the role of the subjective therein. Nevertheless he did not talk about the environmental impacts of corridors.

6.2.3 Prof. Dr. Markus Taube

Prof. Dr. Markus Taube refers to the city of Duisburg, effects which are appearing there and also to corridor developments in general.

About Duisburg he says that the city is at the moment an important arrival and dispatch station, but at the same time he states that in the future also another city could undertake this role. With the 'duisport Group' the city of Duisburg has an important investor and strategic partner of China in realizing the BRI established within its boundaries. Looking at the whole region, Duisburg, Düsseldorf and the Ruhr area form an important location for Chinese companies.

Regarding effects, Taube does not directly mention the infrastructural dimension, but as the developments in Duisburg are about infrastructure, this dimension certainly plays an important role.

With regard to the economic dimension Taube elaborates different aspects. Regarding the whole region he talks about agglomeration effects which could occur in the future, leading to positive effects for the economy. Furthermore, the Chinese investments have direct as well as indirect effects. Taube mentions that through possible agglomeration effects in the industry workforces and also in general people could be attracted by the region. The need of more workforces could be seen as a direct impact of the corridor development and indirect effects would be wider economic impacts, which could emerge from the agglomeration effects and which could also have influence on the GDP in the future, also he did not mention the GDP explicitly. These direct effects are related to the labour market and job creation. Furthermore, Taube describes in the theory so called 'structural changes' as more people are attracted from the area, which stimulates the agglomeration forming even more. These effects thus are also of influence on the spatial dimension. Here, it gets clear that the dimensions somehow overlap and are interrelated. However, about the environmental and subjective dimension Taube does not say anything.

Besides, Taube explains which roles governments play. He mentions that recently especially city governments are engaging with local industry politics to attract Chinese investments with regard to the BRI. The Federal Government of Germany at the same time is trying to establish a frame in which cooperation could take place in the future between China and Germany. Thereby one needs to think of institutional regulations and competitive order. In addition, Taube states that if local governments want to get involved in the BRI an important requirement would be to provide physical and institutional infrastructure to link into the network of the BRI. With regard especially to cooperation between Gelderland and Duisburg or Germany in general, Taube states that this could be useful regarding "broadened value chains" (personal e-mail communication, 2017, May 26).

All in all Taube focuses on the city of Duisburg and effects and expectations there. An overview of these effects can be found in table 6.

Remarkable is that he claims that the role of Duisburg could be undertaken by another city in the future. He is the only person interviewed who suggested something like this. All the other interviewees are clearly more positive about the role of the region in the future. Besides the effects he also explains which roles governments should play with regard to the BRI according to him.

Table 6: Effects of corridors on their surrounding mentioned by Prof. Dr. Markus Taube (author, 2017).

Dimension	Resulting effects		Indicators	Taube	Policy/ Governance
Infrastructural/ transport					Physical and institutional infrastructure important requirements to get involved in BRI (link into network)
Economic	Types	Direct		Requirement of resources and workforces	Influence how trade takes place
		Indirect		Wider economic impacts	
	Accessibility	Direct	Changes in travel costs		
		Indirect	Changes in attractiveness of location	Workers are attracted	
	Labour market	Job generation	Employment	More employment	
		Structural changes	Clusters and agglomerations	Clusters and agglomerations	
				Attraction of workforces and people in general	
Spatial/ urbanisation	Population	Changes in number		More people move there	
Environmental					
Subjective					

As can be seen in the table, Taube focuses especially on the economic and spatial dimension with regard to effects of the BRI on Duisburg. However, he did not mention any effects regarding infrastructure, environment or the subjective dimension.

6.2.4 Remco Jonker

The interview with Remco Jonker gave an insight into how a company looks at the BRI. In the case of the company which produces baby food the idea of making use of the train connection between Duisburg and China developed accidentally, by reading a newspaper article which reported about this railway. Further steps were to test the transport by train with regard to the quality of the product in tight cooperation with the company headquarter in China and the rail operator DB Schenker. This means that the connection was set up completely without the involvement of the

government. The test transports were carried out over a period of about one year and at the time of the interview the commercial use of the railway connection existed for about one week, which means that the use of the connection by train between Duisburg and China was really at the beginning. Remco Jonker emphasized that the company for which he works is the first company which makes commercial use of the line.

An important requirement before taking it into commercial use were guaranteeing the quality of the product and securing the correctness of the documentation. As the train passes different countries one needs to pay attention to the right documentation, as there are different requirements for the different countries. Here also the Russian boycott on special products from Europe plays an important role. If the documentation is not correct containers could not be allowed to get into a country, which would mean big losses for the company exporting the products to China. Therefore Remco Jonker states that it is very helpful to have people in the various countries who know which requirements are necessary to be able to cross the customs examinations of the different countries. Also the differences in criminal prosecution is seen by companies as a possible thread.

Another problem he mentioned is the further transport if the products have arrived in China. Until now the rail connection ends in the cities of Wuhan, Chongqing or Chengdu, which are situated more in the North part of China. The producer of baby food however needs to transport its products to the South of China where the Chinese headquarter of the company is situated.

Furthermore, the transportation by train needs a lot of preparation, which makes the lead time by train longer, as the transport by train is not very flexible. If you want to carry goods by train you have to book the container one week in advance, which is obviously longer compared with one day in advance for air freight and transportation by ship. Moreover, the train is around five times more expensive than the ship, but cheaper than the airplane.

Positive aspects of train transportation are that the train is faster than the ship, but of course slower than the airplane. Furthermore, the containers for the transport by ship or by train are the same, so companies do not have to adjust to other containers. Also the dates of the train departures are clear and transport time is quite stable, around 30 days at the moment. But the time could be even reduced to 16 days if the producer of baby food could stock goods in Wuhan, which this forms a significant difference compared with 48 days the products need to be transported by ship. These days could even increase in the future, Remco Jonker told, as ships are getting bigger and bigger and therefore need to approach more and more ports, reducing the number of direct connections from Rotterdam to China. The development by train is thus exactly the other way around, as the growing demand for train connections leads to an increased number of connections by rail from Europe to China.

With regard to the overview over the effects (table 7), on the infrastructural dimension on the one hand, the rail connection definitely increased the accessibility compared to transport by ship. On the other hand the accessibility is constrained through unstable countries and a longer lead time as mentioned further above. In addition, Remco Jonker states that in the future the increasing transportation could lead to congestion, which could decrease the reliability of the train connection. Therefore it is the responsibility of the provinces in the Netherlands and in Germany to work together and prevent this of happening through good cooperation and development of additional infrastructure. Overall Remco Jonker describes the accessibility of Gelderland as good, as there are now two or even more connections by train to China and just one connection by ship. Another infrastructural effect is depending on from where the containers depart to China. If the containers

go by ship, inland vessels transport them to Rotterdam, however if they are departing from Duisburg or Tilburg, trucks carry the goods there. Meaning that either there is more ship traffic or there is more truck traffic, while the costs stay the same related to the different distances.

Regarding the economical dimension the development of the railway makes Poland more attractive, as this country now forms the point of entry and exit of products coming or going to Asia. This could have negative impacts for the Netherlands in the future and lead to interregional tensions.

Regarding environmental effects Remco Jonker talks about CO₂-emissions, as train transportation has less impact on the environment than shipping and aviation.

The image of the railway is especially in China important and influential and can be affected by the media or policy. Especially in China the media and the policy play a relevant role. According to Remco Jonker in Europe the public is not really interested in transportation at all, but with regard to the environment the train has a benefit compared with the other modes of transportation.

The role of governments could be to stimulate the transport by train through cooperation and spread the benefits.

Remco Jonker further pointed out that he is not convinced of the development of a Rail Terminal in Gelderland for several reasons. Firstly, Duisburg and Tilburg are both situated nearby to Gelderland. Therefore he doubts the added value of such a Rail Terminal. Secondly, he explains that for the producer of baby food it would be more expensive and more time-consuming to transport goods via a Rail Terminal in Gelderland, as Duisburg and Tilburg are both situated in a range of 1,5h by truck. According to him a better option would be to work together with other provinces of the Netherlands and Germany which are situated in the inland, as provinces situated near sea are not interested in the rail connection as they are more connected to the ports. Therefore also cooperation should not take place on the national level, but on the regional level. Cooperation of the different parties would also lead to more power when addressing to China and could make the region also more attractive in the future. Moreover, he also states that the producer of baby food would be even more interested in a train from Gelderland to Rotterdam than in a rail connection to Duisburg or Tilburg, as according to him rail is just useful for bridging long distances.

Concluding it can be said that the train forms a good middle way regarding time and costs of transportation. Goods which are more urgent and need to be transported over long distance can be best transported by train. Moreover, Remco Jonker gave a good insight in the perspective of a company on the BRI. He made clear which components are particularly important for a company like the one which produces baby food regarding the Chinese initiative. Furthermore, he also spoke about the province of Gelderland and the city of Duisburg. All in all not a lot changed for the producer of baby food with the implementation of the railway, as they already carried goods in the past from Europe to China.

Table 7: Effects of corridors on their surrounding mentioned by Remco Jonker (author, 2017).

Dimension	Resulting effects	Indicators	Jonker	Policy/ Governance
Infrastructural/ transport	Accessibility	Time improvement in comparison with ship, more departures	More train use in the future, constrained accessibility through unstable countries and a longer lead time	Responsible for development of infrastructure to make connections to China more accessible
Economic	Accessibility	Direct		
		Indirect	Changes in attractiveness of location	
	Transport network	Reliability	Level of congestion	
Spatial/ urbanisation	Accessibility along and to a network	Tensions	Intraregional	
			Interregional	
Environmental	Pollution	Noise		
		Air/ atmosphere	CO2	
		Vibration		
Subjective	Image		Especially in China applicable, in Europe the public is not interested in infrastructure	

6.2.5 Dr. Paul-Frans van der Putten

In the conversation with Dr. Paul-Frans van der Putten it was talked about possible risks and opportunities of the BRI for the Netherlands. One risk is formed by the possibility that the Netherlands in the future could lose their central position in Europe as a result of shifting trade patterns because of the New Silk Road. At the moment the Netherlands have a very central position between Germany, France and Great Britain, which all three form important political and economical centres. In the future Central Europe could shift into the centre, which would mean that no longer goods would flow through the Netherlands. As a result the country could get a more regional function for a part of Europe and could lose its importance for whole Europe. This could lead companies to leave the Netherlands, as the example of HP shows, which established a new headquarter in Athens. In addition, not only a shift within Europe could take place, but also a shift of power more into the direction of China could be a result of the BRI. Because of this Van der Putten

suggests that the Netherlands need to think about how to react on future changes and how to stay important regarding also the airport of Schiphol and the port of Rotterdam. He adds that when companies like HP leave it gets even more important to attract other new companies.

According to Van der Putten the BRI especially forms a threat to the Netherlands if they do not react, whereas the BRI could also mean new opportunities if Dutch actors take action and search for chances. In general, he states that the Netherlands need to anticipate to the BRI, as the New Silk Road will happen either way.

A possibility for the future with regard to the New Silk Road sees Van der Putten in the export of certain specialities of the Netherlands. He mentions the examples of the export of technologies, the export of knowledge, as for example knowledge on ports and environmental impact reports and especially the export of agricultural products.

With regard to possible future benefits of the Chinese developments Dr. Paul-Frans van der Putten emphasized the importance of the connection with Duisburg. Duisburg will certainly be an important hub in the future, situated near the Netherlands. This could form an opportunity for the Netherlands to benefit from this hub nearby, but only if the Dutch actors respond actively on these developments. Furthermore, he describes the contact between Germany and China as almost maximized, as the Chinese and German politicians are meeting regularly the recent weeks. This would also mean a strengthening of the importance of Germany and Duisburg in the future with regard to the BRI. On the contrary, the Dutch government is still very cautious and according to Van der Putten should take more initiative. He further explains that with regard to the restraint of the national government it would be the task of the regional governments to get active.

Therefore with regard to the regional governments he emphasizes that for them it is important to look for connections to the corridor hubs, including also shipping and aviation corridors. Moreover, he emphasized the importance of regional initiatives, as the whole country can benefit from these initiatives if they are adjusted to each other. With regard especially to cities Van der Putten states that for them it is essential to search for comparative advantages if they want to be attractive. In the future a lot of Chinese companies will search for a location in Europe and if a city possesses comparative advantages towards other cities this increases the chance of this city in attracting these companies. Otherwise, if a city cannot possess comparative advantages it will not be able to attract companies. Therefore the most important thing is to find out what are the needs of the companies.

With regard to the province of Gelderland Van der Putten mentioned the example of the corridor between Bordeaux and Lyon as a good example which could be studied to see if it would be also possible in the Netherlands to establish such a corridor. Therefore he points out the importance of cooperation between cities, provinces, municipalities, companies and also Chinese actors. Gelderland should search for its comparative advantage towards Duisburg and Tilburg, because otherwise it will not be useful to develop a transport corridor between Gelderland and Duisburg. Also with regard to attracting companies to establish in Gelderland this comparative advantage plays an essential role.

Moreover, in the conversation it was also talked about Tilburg and the effects the railway between Tilburg and China has already on the Dutch city. Tilburg forms a convenient location for international companies through the rail connection. Moreover, Tilburg is situated near Rotterdam, but has comparative advantages towards the city, as the land prices in Tilburg are much lower than in Rotterdam.

Regarding trade Van der Putten states that also in the future transport by airplane and ship will be still important. Just urgent and valuable products will be transported by train. Besides, he states that Chinese people are very interested in European products, which will result in a more balanced trade pattern in the future according to him. Also e-commerce will play a role regarding trade in the future. Another development he explains is that in the future more components will be transported back and forth between countries, as this will be economically more profitable.

As already other people mentioned also Van der Putten emphasized strongly the importance of cooperation. He states that at the moment different actors and also governments are competing with each other regarding the BRI. This is bad, as it weakens the negotiation power with China, as China is a very big country with a lot of power. Instead European countries should cooperate and represent themselves as one unity to the outside, under a jointly strategic vision. Within Europe the different countries could still compete with each other. Unfortunately in reality the European Commission has just constrained interest and power and also national governments are not acting. In the long run, cooperation should take place within Europe as well as within the Netherlands and the European Union together with the national governments of the member states should take action. Nevertheless, the European Union and the national governments just can facilitate and can build the frame, while regional governments need to work on the implementation. As national governments do not act, as already mentioned, regional governments need to take the lead and play a more important role. As Van der Putten adds these regional initiatives are very important as they well adjusted to each other, can lead to benefits for a whole country.

A tabular overview was also created for the conversation with Dr. Paul-Frans van der Putten, including the different dimensions from the theory section (see table 8). With regard to the infrastructural dimension Van der Putten states that the accessibility has already increased. Moreover, there is more use of the transport connection by train, which however at the moment is constrained through the Russian boycott and limitations which China has set on the import of European products. Through the increased accessibility there are also already more profits as trade takes place which otherwise without the train connection would not have taken place. Altogether Van der Putten sees accessibility as a very important factor.

Regarding economic effects of the BRI Van der Putten distinguishes between short and long term implications. Within the short term he does not expect big economic effects for the Netherlands, whereas in the long run impacts could be bigger. However, he states that it is very difficult to predict economic effects and therefore states that trade could increase as well as decrease in the future. Through the increased accessibility there are also indirect effects as the example of Tilburg shows, where the city has developed to a convenient location, which attracts international companies. Regarding the labour market the BRI will be definitely have effects on the job generation and the GDP depending on if there will be more companies or less companies in the future in the Netherlands. For sure Van der Putten predicts structural changes as companies will leave the Netherlands for another location within Europe, as the example of HP demonstrates. He emphasizes that especially therefore it is even more important to attract new companies. Therefore Van der Putten emphasizes the role of political factors as they are influencing economic developments. According to him the Chinese government has a big influence on where Chinese companies settle within Europe. If European actors thus aim to attract Chinese companies within their area, they need to pay attention to underlying political factors. It is not enough for European actors to create an attractive economic climate, but they also need to take into account political factors. With regard to different sectors Van der Putten especially sees chances for the agricultural

sector in exporting products to China in the future. For all these developments the European Union together with national governments can create the framework and regional governments should realize the implementation. Especially the stimulation and creation of comparative advantages are a key task here.

Also within regard to the spatial dimension the role of governments is to care for a good framework and reduce through cooperation inequalities which can develop. Vickerman (1994b) labels areas which are less accessible than others as periphery and areas with a high accessibility as core. As a result companies leave from the periphery and establish new headquarters in the core. In the future a lot of companies will leave the Netherlands for the more central position of Central Europe. Furthermore, he also talks about interregional tensions between different actors within Europe, as they are competing for the benefits of the BRI. In fact, Van der Putten sees this very critical as through these competitions the negotiation power of Europe is weakened, which could be stronger as Europe would present itself as one unity to China.

As the train is less polluting than ship or airplane, the increased transportation of goods by train is a positive development for the environment, as less CO₂ is emitted.

Also the subjective dimension, especially the image can play an important role. The image can be important in attracting Chinese companies, which at the same time gives it also a commercial value. The media and politics can support the image of a certain area and to guarantee a good image the role of the government is to have a good communication strategy towards the media. In addition, Van der Putten also emphasized the importance of political support.

Last but not least Van der Putten also mentions people-to-people exchange and emphasizes that this exchange can influence and support economical exchange.

Table 8: Effects of corridor developments mentioned by Dr. Frans-Paul van der Putten (author, 2017).

Dimension	Resulting effects		Indicators	Van der Putten	Policy/ Governance
Infrastructural/ transport	Accessibility	Time improvement	More use	More use of transport by train, which is constrained by Russian boycott and limitations by China on the import of European products	
			More profiting	Trade which would not take place without train connection	
Economic	Timeframe	Short term		Just little economic effects for the Netherlands	European Union together with national governments create the framework and regional governments have to realize the implementation, create or stimulate comparative advantages
		Long term		Trade could increase or decrease	
	Accessibility	Direct			
		Indirect	Changes in attractiveness of location	Increased attractiveness: Tilburg convenient location; companies come there	
	Labour market	Job generation	Employment	Definitively effects on employment, not sure yet if positive or negative effects for the Netherlands	
		Structural changes	Negative effects for surrounding areas	Companies will leave the Netherlands, example of HP	
	Gross Domestic Product (GDP)			In the long it could increase or decrease depending on general developments	
	Sector			Especially profits for agricultural sector in NL	
Spatial/ urbanisation	Accessibility along and to a network	Periphery	Shadow effects	Companies leave	Cooperation to regulate effects on inequalities
		Core		Attracts more companies	
		Tensions	Intraregional		
			Interregional	Weakens negotiation power with China	
Environmental	Pollution	Air/ atmosphere		Train less polluting than ship or airplane	
Subjective	Image	Media		Very useful to attract Chinese companies	Strengthened effect, government needs to have a good communication strategy
		Policy		Political support needs to be created for image	
	People-to-people exchange			Supports economic exchange	

6.3 Policy dimension: example of GVT Tilburg

An interesting case is represented by the 'Gebroeders Versteijnen Transport' (GVT) in Tilburg with regard to the role governments play in the BRI. The railway between Tilburg and the Chinese city of Chengdu exists since April 2016 (Van der Putten, 2016), with a weekly train connection between Tilburg and China (Van der Putten, 2016). This frequency has increased since then to three trains per week and according to Roland Verbraak till the end of 2017 the number of trains should be even increased up to five trains per week. This arises from an interview which was conducted in April 2017 by the province of Gelderland with Roland Verbraak (personal communication, 2017, April 4), who works as the General Manager for the GVT Group of Logistics (Port of Rotterdam, 2016). This rail connection reduces the transport time from 35 till 40 days by ship to just 12 till 15 days by train (GVT Group of Logistics, 2016), forming a good alternative for companies which want to transport their products from Tilburg to China or the other way.

The freight between Tilburg and China is quite divers. From Chengdu there are mostly consumer goods coming to Tilburg from companies such as Sony, Samsung and Fuji, while Tilburg is exporting products for the oil industry, trees and also high quality consumer goods, such as wine and cars (Amighini, 2017; GVT Group of Logistics, 2016).

Special about this railway is that GVT Tilburg claims that the railway was completely developed without the involvement of the Dutch government (personal communication, 2017, April 4). In the interview with the province of Gelderland, Roland Verbraak states that GVT Tilburg was approached by the city of Chengdu, because the city was looking for a Dutch partner to set up a railway connection. According to him a Chinese delegation from Chengdu was visiting Rotterdam, when they took notice of Tilburg through watching a promotion video. Consequently, Verbraak visited China for further negotiations, which resulted in signing a trade agreement between Dell and Chengdu International Railway Services (CDiRS) (GVT Group of Logistics, 2016). He states that the most important reason for Chengdu to cooperate with Tilburg was the establishment of a lot of electronic companies, such as Dell, Lenovo and Samsung in the region of the Dutch city (personal communication, 2017, April 4).

As Tilburg was directly approached by the Chinese rail operator the Dutch government was not at all involved in this rail connection. Regarding the fact that the CDiRS is a state-owned company, on the Chinese side of the cooperation the state is well involved. Although the Dutch government was not involved in the emergence of the cooperation between Tilburg and Chengdu, they were well involved regarding the infrastructure, especially with regard to the hub and the project 'Better Benutten'. Furthermore, the Dutch government also helps with the marketing and deepens connections to China, helping Dutch companies to invest in China (personal communication, 2017, April 4).

With regard to the theoretical section this case thus raises the question of the role of governments. Are governments actually needed in the BRI? And when yes, which role exactly do they play and could or should they play in the future?

7. Conclusion and recommendations

7.1 Conclusion

The aim of this research was to get a better understanding of the corridor concept with regard to the 'Belt and Road Initiative', with specific focus on the city of Duisburg and the province of Gelderland, by making an assessment of the possible effects and consequences for these two actors. To achieve this aim the following main question was asked:

What are (possible) effects of the corridor development of the 'Belt and Road Initiative' for the city of Duisburg and what are resulting consequences for the province of Gelderland?

Here, an answer will be given to this main question by first giving answers to several sub-questions which were posed to help answering the main question.

7.1.1 Answers to the sub-questions

1. What exactly is the 'Belt and Road Initiative' about?

The answer to this question was divided into two parts, on the one hand the Chinese perspective in chapter 4 and on the other hand the European perspective in chapter 5.

Summarizing, in general it can be said that it is quite difficult to exactly describe what the BRI is about, as it is a really wide initiative which has a lot of different parts. Nevertheless, from analysing the official document which was published by the Chinese government it got clear that the most important points to mention are cooperation, trade and infrastructure.

The cooperation has different dimensions, as it includes policy coordination, financial cooperation and also people-to-people exchange. By means of these cooperation projects China aims to increase trust and understanding between the different countries, which can be seen as the base for deeper economic cooperation.

Furthermore, the implementation of infrastructure is a big part of the BRI. It needs to be mentioned that infrastructure includes a wide range of types of infrastructure, such as roads, ports, aviation, energy and also communication infrastructure. These connectivity networks should also bring the different countries closer together and form the base for a deeper economic relationship. There are much more dimensions which are also important, but are left out here to keep it more simple.

In addition, a quite unique thing about the initiative is that it is open to anyone who is willing to participate. As a consequence, China is not trying to exclude anyone and everybody is free to join the initiative.

Another point of the BRI is the financing of the whole initiative. It got clear that China depends on other countries in the realisation of its initiative, as China cannot finance the initiative on its own, although the country has already set up a number of funds and other institutions. One important example is the Asian Infrastructure Investment Bank (AIIB).

Besides, there is recently also a lot going on with regard to the BRI, as China is actively promoting the BRI. Therefore the Chinese president Li Jinping held the first 'Belt and Road Forum' in Beijing in May. He was joined by a lot of different countries and world leaders, under which for example the Russian president Putin and the Turkish president Erdogan. This makes clear that the whole initiative is still developing and the future will show how the initiative will develop further.

Regarding the European perspective it can be concluded that until now there is not one common strategy for the BRI in Europe. As a result the responses of the various countries to the initiative are very different. Interesting is that the missing responses on the national level lead regional governments to take action. Some of them with success, as for example the French city of Lyon, which succeeded to get involved in the Chinese initiative as the railway from China to Duisburg was finally extended until Lyon.

2. What are the effects of big corridor projects in general on their surrounding?

The second sub-question was answered in the second chapter about the theoretical framework of corridors. It was talked about corridors in general and a number of relevant concepts regarding effects of corridors were described, such as accessibility, spillover effects and network effects and spread and backwash effects. In addition, in the scientific literature a number of effects of big corridor projects on their surrounding were identified and were represented in a tabular overview (see table 1). The different effects were grouped into five different dimensions: the infrastructural/ transport dimension, the economic dimension, the spatial/ urbanisation dimension, the environmental dimension and last but not least the subjective dimension. In addition, also the role of governance and policy with regard to these effects was discussed.

3. What are expectations of the corridor development of the 'Belt and Road Initiative' on the side of the city of Duisburg?

Regarding the expectations on the side of Duisburg, one article published in the Baltic Transport Journal written by Li (2016) was analysed and in addition, also two people from the University of Duisburg-Essen were contacted, which resulted in a personal conversation with PhD Acting Prof. Yuan Li and an interview via e-mail by Prof. Dr. Markus Taube.

In his article Li (2016) writes that probably more and more Chinese companies and people will be interested in Duisburg and its surrounding area in the future. As a result more and more companies and tourists will come there and the cross-cultural exchange will increase. This came also back in the interview which was held with Li.

While Li is doubtless that Duisburg will also in the future play an important role regarding the BRI, Taube is not that sure about this assumption. Taube agrees that Duisburg is at the moment an important arrival and dispatch station, but he states that in the future also another city could undertake this role. With this statement he creates doubts about the future role of Duisburg regarding the BRI. Clearly, it is important to mention that he is the only one with this opinion, as all the other people to whom it was spoken in the framework of this research are convinced that Duisburg will also be an important location regarding the BRI in the future. Nevertheless, if Duisburg can keep its position in the BRI in the future, Taube talks about agglomeration effects which could occur and could lead to positive effects for the economy of the city and its surrounding area. This could also attract people and workforces.

4. What are expectations of the corridor development of the 'Belt and Road Initiative' on the side of the province of Gelderland?

To give an answer to this question, it was talked to Joost Roeterdink from the province of Gelderland in a personal conversation. He talked about different projects in which the province is involved. One of them is the planned Rail Terminal which will probably be build in Gelderland. Roeterdink expects that the implementation of the Rail Terminal will improve the involvement in the freight transport

and the connection to Duisburg for the province. Regarding the freight transport, Roeterdink hopes that the Rail Terminal can make Gelderland a place where goods are not just transferred through, but where they also remain to be worked on. According to him this could attract new companies. Besides, he emphasized the important role of Duisburg now and also in the future regarding the BRI. Moreover, he expressed hopes for more investments by Chinese investors in the future, as for example in the Rail Terminal.

In addition, Roeterdink stated that he is convinced that the province will be involved in the BRI in the future. Most likely, according to him this could happen through working closer together with the city of Duisburg.

Nevertheless, the province has not yet developed a clear strategy towards the BRI, which means that the province of Gelderland is still searching for the best way to approach the initiative.

5. What are effects of the corridor development of the 'Belt and Road Initiative' for the city of Duisburg?

This sub-question can be answered particularly by means of the article written by Li (2016) and the conversations with Li and Taube. The tables 3, 5 and 6 which were created for each of the research objectives give a good overview over the effects for the city of Duisburg.

Li (2016) mentions in his article effects related to the economic dimension, the spatial dimension and the subjective dimension (see table 3, p. 49). In addition, he makes a difference between already occurring effects and effects which are possible to occur in the future.

More specific, he talks for example about already occurring "direct import and export benefits for Duisburg, as well as for its surrounding areas" (Li, 2016, p. 41). Furthermore, he mentions more local employment through the railway from China to Duisburg. With regard to possible effects in the future Li (2016) states that the Chinese interest in Duisburg is growing which could probably lead to a growing number of companies and tourists from China in Duisburg. In addition, Li (2016) mentions the role of policy and governance to reduce institutional barriers regarding effects in the economic dimension. During the personal conversation with Li the same dimensions as already mentioned in his article came back. However, especially about the subjective dimension it was talked in more detail.

Taube emphasized the economic effects in Duisburg with regard to the BRI. He especially mentioned agglomeration effects and effects on the employment in the city and its surrounding area. Besides, Remco Jonker mentioned possible congestion in the future if more and more trains pass through Duisburg.

A dimension of effects that was not mentioned at all were environmental effects.

6. How are expectations and effects related to the general effects mentioned in the literature?

This sub-question can be best answered in comparing table 1 from the theoretical framework with the interviews and the analysed article. Therefore it can be looked at the tables which were created for each interview and the article. Looking at these tables it is apparent that a lot of the mentioned (possible) effects regarding the city of Duisburg and the province of Gelderland can be entered into the table which was created based on theories and concepts of general effects of corridors on their surroundings. As a result, it can be said that the table based on the theories and concepts in general gives quite a good overview of the possible effects in the cases of Duisburg and Gelderland.

Nevertheless, not all mentioned effects in the theory are actually occurring in reality. This already gets clear when looking at the two cases of Duisburg and Gelderland. Consequently, every

case needs to be looked at in specific to find out which effects are relevant and more or less possible to occur.

Remarks are that in this research it was not really focused on the environmental effects. Besides, the most effects are predicted to occur in the future and therefore there is uncertainty if they will actually occur.

7. What are the chances of the corridor development of the 'Belt and Road Initiative' for the province of Gelderland?

Answering this sub-question it will be especially made use of the interview with Dr. Paul-Frans van der Putten.

Van der Putten sees, as already mentioned by Roeterdink, a chance for Gelderland regarding the BRI in cooperating with Duisburg. That is because the German city is already a few steps ahead, as it is already part of the BRI and has regularly contacts to China. Moreover, the city of Duisburg is situated near the Netherlands and especially near Gelderland. In addition, all interviewees, except for Taube, saw a positive future for Duisburg with regard to the BRI. Therefore a good connection to Duisburg would be very important if Gelderland wants to benefit from this hub nearby and wants to get involved in the Chinese initiative.

However, Van der Putten talks not just about cooperation with Duisburg, but also sees a chance in cooperating with even more actors, as for example other provinces in the Netherlands and Germany, which are interested in the BRI. He stresses that one province has not a lot of power, but cooperation would strengthen the position of the whole region towards China and therefore would be beneficial for all.

Furthermore, Van der Putten emphasizes that regarding the restraint of the national government, it is the task of the regional governments to take action. Regarding this Van der Putten emphasizes the importance of finding comparative advantages compared to nearby regions and cities. Only if a region or city has a comparative advantage compared to others it can attract companies. Van der Putten adds that in the future a lot of Chinese companies will search for a location in Europe and if Gelderland has a comparative advantage towards Duisburg and Tilburg this would increase its chance in attracting these companies. In addition, it is also important to get to know about the needs of these companies.

An example which demonstrates that the province of Gelderland could be successful is the example of Lyon. The city succeeded in getting involved in the BRI, as the railway which first ended in Duisburg was finally extended to Lyon. This was all done by the local authorities and without the help of the national government. This example of the French city shows that Gelderland also has a chance to get involved.

8. What are possible risks of the corridor development of the 'Belt and Road Initiative' for the province of Gelderland?

One risk for the province of Gelderland is formed by the possibility that the Netherlands in the future could lose their central position in Europe as a result of shifting trade patterns because of the BRI. With the development of the railway more goods could come to Europe by train instead of via the port of Rotterdam, which would mean that Central Europe could shift into the centre. This could result in companies leaving the Netherlands and thus also Gelderland. This assumption is also supported by Remco Jonker from the baby food producing company, which already makes use of the

railway between Duisburg and China. He mentioned in the interview the possibility of moving to Poland with his company, as this would shorten the transportation time for the company.

In addition, there are risks for the province to not get involved in the initiative in the future. At the moment there are no effects on Gelderland of the BRI, as the connection stops in Duisburg, respectively Tilburg. The province of Gelderland needs to take action, because otherwise it could be already too late to get involved. Therefore Gelderland really needs to think about its comparative advantages.

Besides, it is important to think about the added value of the Rail Terminal and its comparative advantage towards other terminals, because otherwise the terminal will not be a success and will not form a connection to Duisburg. The importance of thinking about this is also supported by Remco Jonker's statement that for their company the Rail Terminal is not really of interest.

9. What could the province of Gelderland do to get more involved in the corridor development of the 'Belt and Road Initiative'?

This last sub-question overlaps with paragraph 7.2, which deals with policy recommendations. There it is described in detail how the province of Gelderland could best act to get involved in the BRI.

7.1.2 Answer to the main question

Finally, it will be given an answer to the main question:

What are (possible) effects of the corridor development of the 'Belt and Road Initiative' for the city of Duisburg and what are resulting consequences for the province of Gelderland?

Based on the answers of the sub-questions the main question can now be answered in detail.

The fifth sub-question dealt already with effects of the BRI on the city of Duisburg. It got clear that effects already exist on the city of Duisburg through the implementation of the railway from China to Duisburg. A good overview over the effects on Duisburg can be found in the tables 3, 5 and 6. These effects are mainly of an economic nature, as stated by Li and Taube. The increased accessibility through the implementation of the railway has led to a reduction in costs of doing business. As a result, trade has increased resulting in "direct import and export benefits for Duisburg, as well as for its surrounding areas" (Li, 2016, p. 41). This has resulted in knock-on profits, such as positive effects on the employment. In addition, also the number of Chinese companies settled in Duisburg and its surrounding has increased.

However, the effects on Duisburg are wider than just economic effects. Li talked further about effects in the spatial and subjective dimension. According to Li people-to-people exchange listed under the subjective dimension correlates with the economic dimension. As countries start trading with each other they get to know their products better, which can increase the trade. At the same time as the trade increases people are getting more interested in the other country, which can increase the people-to-people exchange.

Moreover, Li argued that the local government in Duisburg plays an important role regarding occurring effects, as they work very hard to attract Chinese companies.

Taube mentioned the possibility that the role of Duisburg as an important arrival and dispatch station could be undertaken by another city in the future. Important is to mention that he is the only interviewee who thinks so, as all the others are stating that Duisburg will keep its

importance in the future. Looking into the future, Li (2016) stated that the Chinese interest in Duisburg will increase, leading to a growing number of Chinese companies and tourists. Taube especially mentioned agglomeration effects which could occur, as Duisburg is an important location for Chinese companies within Germany, but also within Europe. These agglomeration effects could lead to other positive effects, which could reinforce each other. Industry agglomerations could emerge leading to an attraction of workforces and people in general.

Remarkable is that in all the interviews it was not talked about environmental effects which are probably occurring regarding the increased rail traffic.

Now it will be taken a closer look on the province of Gelderland and possible consequences of the effects on Duisburg for the province. From the interviews it got clear that, at the moment, there are no effects of the railway on the province, as the railway connections stop in Duisburg, respectively in Tilburg.

Some interviewees have mentioned the risk for the province of companies moving away in the future, as there could be better and more central locations for companies through the changing circumstances.

Not without a reason all the experts who were interviewed agreed on the fact that the province of Gelderland needs to take action if they do not want companies to leave in the future. Consequently, the worst thing the province could do is to do nothing. Gelderland has thus the opportunity to prevent bad effects before they occur. In the interviews different possibilities for the province on how to react to the developments which are going on regarding the BRI were mentioned. These different possibilities are described in more detail in paragraph 7.2 about the policy recommendations.

Nevertheless, Van der Putten emphasized that it is very difficult to predict effects, which results in a big uncertainty regarding possible effects on the province in the future.

In addition, also the exact influence of concepts like spillover effects, network effects and spread and backwash effects should be further examined to get to know more about the influence they have on the effects.

As this explorative research was a first attempt to create a framework for analysis for the possible effects on the city of Duisburg and the province of Gelderland, further research is needed to specify in more detail which effects actually will occur in the future.

7.2 Recommendations for the province of Gelderland

In this paragraph recommendations for the province will be made and possible opportunities for action will be outlined.

A more general comment was made by Li, who stated that governments should reduce administrative barriers to make trade easier. However, this would be probably more a task for the national government than for the province.

The first recommendation was mentioned by Taube, who stated that it is important for governments to provide physical and administrative infrastructure which make it possible for companies to get involved in the BRI. Van der Putten and Roeterdink with this regard emphasized the importance of having a good connection to networks in general and with special regard to Gelderland a good connection to Duisburg. It is important to be well connected, as otherwise one can get excluded. Van der Putten mentioned not just the connection via railway, but also talked

about connections via sea and air, as they will stay important in the future. As a result the province should have a good connection to infrastructure networks in general and particularly to Duisburg.

The second point, which was also already mentioned in the conclusion, is that the province needs to react to the ongoing developments regarding the BRI and that doing nothing would be the biggest mistake. Li adds that governments should make a quick decision if they want to join the BRI or not, because otherwise the opportunities could be already gone. If it then gets clear that other governments have already joined the BRI disadvantages could occur. As a result the province of Gelderland should act quickly and start searching for opportunities.

A third recommendation is about cooperation. In all the conducted interviews it was talked about cooperation and Jonker and Van der Putten both stated that the province on its own will not have that much success in getting involved in the BRI. Consequently, it would be better for the province of Gelderland to work together with other provinces or cities. Moreover, Jonker suggested that in China no one knows cities like Arnhem or Nijmegen, but as cities and provinces work together they can stand out. As a bigger region they would also have more power towards China. In the case of Gelderland, Jonker sees a possibility for the province to cooperate with German and Dutch provinces that have the same interests. He thinks that cooperation should not happen on a national level, as different provinces have different interests. For example, provinces situated at the coast are not interested in the railway, because they are more focused on harbours. As a result cooperation should happen on regional level, where regional governments with the same interests can find each other and work together. Van der Putten adds that national governments and the European Commission can just form the framework for cooperation. He sees the most important actors regarding cooperation in companies and regional governments, as for them it is possible to really implement the cooperation. In addition, regarding the inactivity of national governments with regard to the BRI, it should be regional governments who take the initiative and play a more important role. Concluding, the third recommendation is to increase the chance for Gelderland to benefit from the BRI it would be useful cooperate with other cities or provinces.

Fourth, another important point, regardless if the province works with other provinces or cities together or not, is the comparative advantage. Van der Putten said that it is very important to search for this comparative advantage compared to other provinces or regions. If a province or region does not have a comparative advantage compared with other provinces or regions it will not be attractive for companies to come there. The task of the province of Gelderland is thus to find its comparative advantage to be able to attract companies or investments. The same applies to the Rail Terminal the province is planning to build. If the Rail Terminal has not any comparative advantages compared to other rail terminals, it will not be attractive for actors to make use of it. Also Jonker supports this statement, saying that if the Rail Terminal has not any added value it will not be a success. In addition, the comparative advantage plays an important role regarding cooperation. Cooperation just takes place if it is beneficial for both parties. If the province of Gelderland thus has not a comparative advantage it will not be interesting for others to cooperate with them. For these reasons the fourth recommendation for Gelderland is to think about its comparative advantage and promote it.

A fifth recommendation which was mentioned in the interviews is that it is very important to get to know the demands of companies. As they are finally the users of the railway it is very important to get to know what they want, if the province wants to get part of the railway. As companies are also the users of the Rail Terminal it should be clear that companies are interested in this project before implementing it.

Last but not least it could be interesting for the province to get to know more about the city of Lyon, as the railway which first ended in Duisburg was finally extended to the French city. It could be interesting for the province to know what the city of Lyon did to attract Chinese investment and what exactly led to the expansion of the railway. Unfortunately it is very difficult to find out what exactly the city did, as in the English, German and Dutch literature it is not that much written about it. However, it could be very useful for the province to get to know more about the example of Lyon.

All in all, it can be said that the province has different possibilities to react to the BRI. Of course, there is still a lot of uncertainty and the future will show what exactly will happen. Nevertheless, if the province gets active and reacts to ongoing developments Gelderland makes a good chance to finally benefit from the developments emerging from the BRI.

7.3 Critical reflection

In this paragraph it will be reflected on the research topic, the theoretical framework and the methodology of this research.

The first point on which it is reflected is the BRI itself. The BRI is a very broad initiative, which includes a lot of different dimensions and projects. Moreover, as it is a very recent initiative, there are still ongoing developments, as for example during the research the first 'Belt and Road Forum' was held in Beijing. That makes the BRI even more interesting, but at the same time, especially in the beginning it was therefore quite difficult to get clear what the initiative exactly is about. It is easy to drift away in the abundance of information. Consequently, it had to be focused on important information and decisions had to be made about what information will be used and when to stop looking for new information. In addition, different authors sometimes had different information or used different terms for parts of the BRI. Therefore it would have been good to read more official Chinese documents or articles, as they are at the source of the information. Concerning lack of the Chinese language unfortunately this was not possible.

A second point of reflection is the theoretical framework, because of the big amount of available literature on the corridor concept. For this reason decisions had to be taken regarding the literature which was read for this research. As a result, probably not all the possible effects of corridors on their surrounding are listed here.

Third, it needs to be reflected on the data collection, which was mainly done by conducting interviews. As the time for this research was limited, it was not possible to talk to all relevant actors in Duisburg and Gelderland with regard to the BRI. As a consequence, it was only spoken to a few actors, which decreases the reliability of the research. For a better understanding of the effects of the BRI on Duisburg and especially Gelderland it would have been important to talk to more actors. Particularly regarding the perspective of the province of Gelderland and the city of Duisburg it would have been useful to talk to more people. Besides, it would have been useful to talk to more than one company who is already making use of the railway, as talking to just one company gives a very onesided view on the railway development.

Moreover, regarding the different dimensions which were identified in the theory, it would have been very interesting to talk to various people who are experts in the different dimensions. Probably they would have been able to outline in more detail which effects are possible to occur in the future. Especially with regard to the environmental effects this would have been useful, as the people who were approached within this framework did not know that much about the

environmental effects. Consequently, the environmental dimension stayed outside the focus and the emphasis laid more on the economic effects.

In addition, during the interviews it was sometimes difficult to stay focused on the aim of the research. As the BRI has so many facets and the different interviewees had various backgrounds, they all had to tell different things about the BRI, which was interesting to listen to. Afterwards unfortunately it got clear that not all the aspects they talked about seemed equally relevant. If there would have been more focus regarding the aim of the current research perhaps even more effects could have been identified.

In retrospect it got clear that it would have been better to contact possible interview partners more early as especially businesspeople can be travelling a lot and therefore appointments sometimes need to be made weeks in advance. As a result, just before the deadline for the concept version of the bachelor thesis two interviews were scheduled. This made it impossible to submit a complete concept version of the research, since time was needed to analyse the interviews. In summary, the interviews went well and the interviewees were very friendly, enthusiastic over the research and handed over or sent extra material, which was very helpful.

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Appendix

Appendix I: Interview guide Joost Roeterdink

1. De provincie Gelderland ligt in verschillende corridors Noordzee-Baltic corridor, Rijn-Alpen corridor, Gelderse corridor (Waal, A15, Betuweroute).
 - a. Deze ligging van Gelderland levert vooral economische voordelen en voordelen voor de bereikbaarheid op, voor zo ver ik het heb begrepen. Maar zijn er ook nog andere voordelen die kunnen worden genoemd?
 - b. Welke effecten zijn het belangrijkste? (infrastructuur, economisch, ruimtelijk, milieu)
 - c. In de literatuur heb ik ook effecten als `imago` en `bestuur` gevonden. In hoeverre zijn zulke effecten belangrijk in jouw mening?
2. Corridors over het algemeen
 - a. Hoe heeft de provincie in het verleden ingespeeld op corridors?
 - b. Welke actoren zijn erbij betrokken?
3. In de documenten van 2013 over het Meerjarenprogramma Infrastructuur, Ruimte en Transport (MIRT) wordt erover gesproken dat Rijk en regio hebben afgesproken om gezamenlijk te werken aan het Goederencorridor Oost dat Rotterdam met Arnhem/Nijmegen en Duitsland verbindt.
 - a. Hoezo wordt alleen Duitsland over het algemeen genoemd en niet bijv Duisburg in het specifiek?
4. In het laatste gesprek werd gezegd dat er nog geen contact met Duisburg is gelegd.
 - a. Is dat nog steeds zo of is dat veranderd?
 - b. Hoezo, is er nog geen contact met Duisburg gelegd?
 - c. De provincie is deel van zoveel andere corridors wat is het verschil tussen deze en OBOR?
5. Wel had ik het gevoel dat de provincie graag involveert zou zijn met blik op Duisburg en het `OBOR` initiatief.
 - a. Klopt dat?
 - b. In hoeverre zou de provincie graag involveert zijn?/ Hoezo niet?
 - c. Wat denk jij hoe de provincie involveert zou kunnen raken bij de OBOR initiatief?
6. Er wordt in het document 'Logistiek als Gelderse motor – Stand van zaken van het uitvoeringsprogram' gezegd dat vanuit de corridors Rhine-Alpine en North-Sea Baltic grensoverschrijdende projecten ontwikkeld worden waarvoor financiering vanuit Europa mogelijk is.
 - a. Zouden deze corridors een startpunt kunnen vormen voor een gezamenlijke aanpak van het `OBOR` initiatief?

7. Actorsstructuren
 - a. Wie zijn met blik op het `OBOR` initiatief belangrijke actoren in Nederland (onderscheid nationaal, provinciaal en gemeentelijk niveau?)?
 - b. Hoezo deze?
8. Effecten in Duisburg
 - a. Weet jij iets over effecten die zich in Duisburg al voordoen?
 - b. Zou Gelderland daar op kunnen inspelen in jouw mening? Hoe?
 - c. Welke effecten zou je in de toekomst nog verwachten in Duisburg?
9. Er zijn echter al verschillende projecten die Duisburg en Gelderland dichterbij elkaar (zouden) kunnen brengen. De provincie Gelderland en de Duisburger Hafen AG zijn allebei lid van de European Grouping of Territorial Cooperation (EGTC) Rhine-Alpine.
 - a. In hoeverre zou dat van invloed kunnen zijn op samenwerking met blik op de `OBOR`?
10. Daarnaast is er sinds april ook de `Abellio` trein lijn die Arnhem en Duisburg/ Düsseldorf verbindt.
 - a. Het is een passagierstrein, maar in hoeverre zouden zulke projecten als `Abellio` een ondersteuning kunnen vormen voor een hechtere samenwerking?
11. Verwachtingen/ hoop
 - a. Wat zijn verwachtingen/ Wat is de hoop van de provincie voor de effecten van de OBOR op Gelderland?
 - b. Zijn er bepaalde verwachtingen tegenover Duisburg?

Article/ Working paper

1. In your article you write “I personally think the Belt and Road Initiative has the potential to become a new global growth engine “. Could you explain in more detail why you think so?
2. In your article you write that the “rail services have generated direct imports and exports benefits for Duisburg, as well as for its surrounding areas”. This assumption is based on the study in the working paper. But you further write “Besides instant trade gains, there are also many other knock-on profits, such as local employment.” Where do you base this assumption on? Are there other studies done? Which are other examples for knock-on profits?
3. In the working paper ‘The Effect of the New Silk Road railways on Aggregate Trade Volumes between China and Europe’ it is written that “it can be expected that in the future Duisburg and its nearby region will attract more and more Chinese companies and also an increasing number of tourists”. On what is this argument based on? Any facts?
4. Why do you think exchanges will not just be focused on the field of economics and trade, but also on cross-cultural communication and exchange of ideas? (article)
5. Could the New Silk Road railway be also of influence on the spatial development of the city of Duisburg? (population, difference between core and periphery)
6. What is about environmental effects of the New Silk Road railway (pollution, health, safety, ecology, landscape)?
7. In your article you mention a lot of benefits for the city of Duisburg, but what is about negative effects?
8. In the above mentioned working document is stated that the “ ‘One Belt, One Road’ is a project in its infancy and so is the research on its effects”. Which effects could you imagine for the future? How do you think the project will develop in the future?

Actor structures

9. Which actors in Germany have played an important role (and which) with regard to the New Silk Road railways between Chongqing and Duisburg?
10. Are there any actors which clearly emerged in the past with regard to the railway between China and Germany?
11. How can governments improve the involvement in corridors according to you?

Netherlands

12. How likely is more cooperation between Duisburg and the Netherlands with the view to the New Silk Road railway in your view?

Chinese perspective

13. Why developed China the whole `One Belt, One Road` strategy, why do they do this?
14. What are the aims of China?
15. What can Europe expect from this project?
16. Does China see Europe as a sales market?
17. When you compare the European perspective with the Chinese perspective, are there any differences?
18. Last week I also had an interview with someone from the province in Gelderland, in the Netherlands and he said that for Chinese people the “wengchi” is also important. He gave the example of a Chinese city which preferred to deal with a city in the Netherlands with which they have a partnership. Can you tell me something about this?

Appendix III: Interview guide Prof. Dr. Markus Taube

Duisburg

1. How do you see the position of Duisburg in the whole 'One Belt, One Road' project? Which role does Duisburg play/ could play?
2. Could the New Silk Road railway be also of influence on the spatial development of the city of Duisburg, especially with regard to the distribution of the population and a possible difference between core and periphery?

Actor structures

3. Which actors in Germany have played an important role (and which) with regard to the New Silk Road railways between Chongqing and Duisburg?
4. Where do you see these actors in the multi-level governance system?
5. How can regional governments improve the involvement in corridors according to you?
6. In your opinion, is the reluctance of the most European national governments with regard to the Chinese OBOR strategy justified, or should the European governments do more to get involved in the initiative?

The Netherlands

7. How likely is more cooperation between Duisburg and Arnhem or North Rhine-Westphalia and the Netherlands with the view to the New Silk Road railway? On which level do you see this cooperation happening and between which actors?

European and Chinese perspective

8. What can Europe expect from this project?
9. When you compare the European perspective with the Chinese perspective, are there any differences?

Future

10. Which effects could you imagine for the future? How do you think the project will develop in the future?

Appendix IV: Interview guide Remco Jonker

1. Sinds wanneer maakt de producent van babyvoeding al gebruik van de treinverbinding van Duisburg naar China?
2. Wat waren redenen voor de producent van babyvoeding om te beginnen gebruik te maken van de treinverbinding?
3. Hoe is die verbinding naar China ontstaan?/ Hoe is die idee ontstaan de producten ook naar China te transporteren? Hoe heeft zich dat ontwikkeld?
4. Wat waren belangrijke voorwaarden aan die voldaan moest worden voordat van deze verbinding gebruik kon worden gemaakt?
5. Hoe is het transport via de connectie naar China georganiseerd? Hoe gaat dit te werk?
6. Zijn er ook problemen? Welke? En waarom zijn dat problemen?
7. Welke rol heeft de overheid erin gespeeld deze verbinding te ontwikkelen? Hoe zou de overheid (provincie) steun kunnen bieden of kunnen helpen problemen op te lossen?
8. Zijn er effecten die deze treinverbinding naar China op het bedrijf of op de vestiging hier in Nijmegen heeft?
9. Hoe zou u de bereikbaarheid naar China (via Duisburg) momenteel beschrijven?

Uitbreiding (mogelijk maken dat goederen al in Gelderland op kunnen worden geladen op treinen) connectie naar Gelderland

10. Zou het voor de producent van babyvoeding van voordeel zijn om die treinverbinding ook naar Gelderland uit te breiden (infrastructurele effecten → betere bereikbaarheid)? Of bent u tevreden met de verbinding vanuit Duisburg naar China?
11. Welke voor- of nadelen zouden door een uitbreiding van de verbinding kunnen ontstaan (economisch → lagere kosten, aantrekkelijkheid, meer banen, structurele veranderingen)? Waarom precies deze?
 - a. Spelen verschillende sectoren een rol met betrekking op eventuele voor- of nadelen?
12. Zou een uitbreiding het imago van Gelderland (voor bedrijven) kunnen beïnvloeden? In hoeverre? Waarom, waarom niet?
 - a. Welke rol kunnen de media en de politiek hierin spelen volgens u?

13. Wat zou u bij een uitbreiding van de provincie of andere overheidsinstanties verwachten?
Welke rol zou de provincie moeten spelen volgens u?

Appendix V: Interview guide Frans-Paul van der Putten

Risico's en kansen

12. In een gesprek met de provincie Gelderland werd me verteld dat het Clingendael Instituut het Chinese 'One Belt, One Road' initiatief vanuit risico's en bedreigingen benaderd. Klopt dat? Hoezo?

13. Welke risico's en bedreigingen vormt OBOR voor Nederland? Hoezo?

14. Zijn er misschien ook kansen voor Nederland die van OBOR uitgaan?

Positie van NL

15. Hoe ziet u de positie van Nederland in het geheel van de Chinese OBOR strategie? Welke rol speelt Nederland/ zou Nederland kunnen spelen?

Overheden

16. In documenten gepubliceerd van het Clingendael Instituut wordt vaak gezegd dat Europa als één eenheid zou moeten reageren op het OBOR initiatief van China. Waarom denkt u dat?

- a. Speelt OBOR zich dus vooral op het nationaal niveau of zelfs op het Europees niveau af?
- b. Wat zou dan de rol van provincies zijn? Of zouden die überhaupt een rol hebben? Hoe kunnen provincies het beste op OBOR inspelen of is dat überhaupt mogelijk?

Economie

17. Zijn er economische effecten voor Nederland die van OBOR uitgaan? Hoezo zijn deze wel of niet belangrijk?

- a. Welke rol spelen verschillende sectoren hierin?

Milieu

18. Wat betekent zo'n project voor het milieu? Hoezo is het wel of niet belangrijk naar deze effecten op het milieu te kijken? (geluid, lucht, landschap, gezondheid)

Bereikbaarheid

19. Wat is het belang van het treinspoor van China via Duisburg naar Rotterdam in termen van bereikbaarheid voor Nederland (vooral voor Nederlandse bedrijven)?

Provincie Gelderland

20. In het gesprek met de provincie kwam verder naar voren dat de provincie Gelderland graag meer involveert zou zijn in het OBOR initiatief.

- a. Zou een uitbreiding van het spoor van China naar Duisburg tot naar Gelderland zinvol zijn volgens u? Hoezo wel of niet?
- b. Welke effecten zou dat met zich mee kunnen brengen voor Gelderland (specifiek voor bedrijven)?
 - Betere bereikbaarheid?
 - Economische voordelen?
 - Imago van de regio?

Meer dan economie

21. Het wordt ook vaak gesteld dat OBOR niet alleen over economie een handel gaat, maar nog veel meer omvat, zoals uitwisseling van ideeën en cultuur etc. Wat denkt u hierover? Hoezo speelt dat wel of niet een belangrijke rol?