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THE INFRASTRUCTURE AND TRANSPORTATION OPPORTUNITIES FOR
THE NEW SILK ROAD

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UUDEN SILKKITIEN INFRASTRUKTUURI JA KULJETUS MAHDOLLISUUDET

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Tämän opinnäytetyön tarkoituksena oli etsiä uuden Silkkitien infrastruktuuri ja kuljetus mahdollisuuksia erilaisten artikkelien avulla. Erilaisia logistiikka väyliä vertaillaan keskenään, jotta saataisiin käsitys uuden Silkkitien laajuudesta. Poliittisten suhteiden vaikutusta vertaillaan ja tutkitaan miten se vaikuttaa tähän projektiin.

Tämä opinnäytetyö oli rajattu suurimmaksi osaksi Venäjän osuuteen uudessa Silkkitiessä. Vaikka muiden maiden osallistumista ja projekteja on esitelty tässä opinnäytetyössä, Venäjän osallisuus on ollut pääasiassa. Tässä opinnäytetyössä oli käytetty mahdollisimman uusia lähteitä jotta saataisiin selville nykyinen tilanne ja tulevaisuuden suunnitelmat uuden Silkkitien tiimoilta. Teoria osuus koostuukin kokonaan englanninkielisten ja venäjänkielisten artikkelien antamista tiedoista.

Teoria osuus koostuu artikkelien tarjoamista tiedoista, ja se toimii pohjana tutkimusosion haastatteluissa. Tutkimusosio tarjoaa syvempää tietoa miten uusi Silkkitie mahdollisesti vaikuttaisi Suomeen ja miten Suomi voisi hyötyä siitä. Tutkimusosion haastattelut osoitettiin Pohjois-Karjalan kauppakamarin asiantuntijoille, Cursor Oy:lle ja Kymenlaakson Liitolle, joihin uusi Silkkitie vaikuttaisi tavalla tai toisella.

Opinnäytetyön sisältämä tutkimus oli laaja, mutta tavoitteet tietojen kartoittamiseen saavutettiin. Uusi Silkkitie tutkimus tarjosi uutta tietoa ja avasi ongelmakohtia ja mahdollisia ratkaisuja. Tutkimus selvitti monia epäkohtia ja tarjosi mahdollisuuksia projekteihin uuden Silkkitien tiimoilta. Tutkimus selvitti että uudessa Silkkitiessä on kaksi osaa jotka täydentävät toisiaan olematta riippuvaisia toinen toisistaan. Teoria osuudessa on myös esimerkki yrityksestä joka tukee uutta Silkkitietä ja sen tulevaisuutta. Tulevaisuudessa uudella Silkkitiellä on globaali vaikutus logistiikka- ja kuljetusalan yrityksille.

Opinnäytetyön sisältämä informaatio tarjoaa mahdollisuuksia kysyä kysymyksiä miten sitä voisi kehittää. Logistiikka yrityksille, jotka haluavat lisätietoa uudesta Silkkitiestä, tämä voisi tarjota hyödyllistä lisätietoa.

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The purpose of this thesis was to discover a new Silk Road infrastructure and transport possibilities from various articles. Various types of logistics routes are compared with each other to find the most profitable one and to gain an understanding of the scale of the new Silk Road. The impact of political relations are compared and studied how it affects this project.

This study was limited, for the most part, of the Russian share of the new Silk Road. Although the participation of other countries and projects are presented in this thesis, Russia's involvement has been the main point. In this thesis, new and current sources have been used in order to find out the current situation and the future of the new Silk Road and issues involved. The theoretical part consists entirely of information provided by English and Russian articles.

The theoretical part consists of the information provided by the articles, and it is the basis for the research methodology portion for the interviews. Research methodology interviews provide a deeper knowledge of how the new Silk Road might affect Finland and how Finland could possibly benefit from it. Research interview partitions are allocated to the North Karelian Chamber of Commerce experts, Cursor Oy, and The Council of Kymenlaakso with a knowledge of how the new Silk Road would have an affect one way or another.

The research in the thesis was extensive, but the objectives of mapping of the data was achieved. The new Silk Road provided new information and opened problem areas and possible solutions. The research explored many shortcomings and offered opportunities for the new Silk Road. The study explained that the new Silk Road has two parts that complement each other without being dependent on one another. The theory part has also example of a company that supports the new Silk Road and its future. In the future, the new Silk Road has global impact to logistics and transportation companies.

The information contained in this thesis provides opportunities to ask questions about how it could be developed. Logistics companies who seek additional information about the new Silk Road, this could provide useful extra information.

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1 INTRODUCTION

The aim of this thesis is to gather information and awareness to the new Silk Road. This thesis has no case company, thus it is only a research made by the authors own interest towards the subject. The thesis has gathered information in order it to be easier to get a holistic understanding to the infrastructure and logistics of the new Silk Road. The thesis will explain all the possible routes and how Russia is contributing to the initiative with its projects and views towards the development of the new Silk Road. To get a more wider angle to the thesis topic, interviews are held by the author to get a more extensive overview.

In the first pages of the thesis, the purpose of the thesis and topic is explained. The conceptual framework visualizes the study and helps to understand the topic. The theory part will open up the topic with sub chapters explaining in more detail the issues and findings in the new Silk Road. Also additional information of the subject is discussed.

The thesis' results focuses to analyse the overview of the thesis and the results gathered. The last chapters of the thesis summarizes the findings from the theoretical part and from the empirical part with brief discussion. It evaluates the thesis topic and concludes the research.

1.1 Purpose of the thesis

The purpose of the thesis is to raise awareness to different projects and changes that are taking place in the logistics and supply chains in new and ground breaking shifts in transportation and shipment industries. The thesis will explain and show new and different approaches to international goods transportation. The information is gathered from different and various internet sources and articles to form a general overview and to form an understanding to changes taking place. The changes have international and even global impact. In the theory part different issues and situations are explained. The thesis include an example of one company where Silk Road transportation has an important part.

The research offers basic knowledge to the infrastructure and logistics in the new Silk Road. This research will help to understand the general overview of the topic. It will discuss Russia's part in the initiative with politics and international relations having and weighing an important part.

1.2 Research questions and problem

The thesis problem is about to establish an understanding on the infrastructural road connections in Russia and between the collaborating countries from Russia's point of view. Also political decisions are looked up how they play their part in the initiative and development. This thesis is looked mostly from Russia's point of view.

The five research questions altogether form an understanding of the logistical situation in the new Silk Road initiative. It also offers an extensive overview to several issues/topics covered in the thesis, such as political relations and a comprehensive view to logistics.

RQ1: How is Russia developing its infrastructure in the Silk Road initiative?

RQ2: What transportation modes are used in the new Silk Road?

RQ3: What kind of logistical opportunities are used for the new Silk Road?

RQ4: How political relations between countries affect the collaboration?

RQ5: How will the other countries who are interested in participating to the new Silk Road will contribute?

The first question explains how Russia will develop its current infrastructure in order the Silk Road to be profitable and worthwhile. The second question explains the different transportation modes to be used in the Silk Road and what would be the most valuable to the initiative. The third research question's aim is to explain the opportunities that the Silk Road will offer and how the Silk Road will form its current logistics and infrastructure. The fourth research questions is about the political relations between the collaborating countries and how it will affect the relations and the collaboration and the formation of the Silk Road. Finally, the fifth

question is about international interest to the Silk Road. It covers international interest to the whole initiative and its future continuum.

All the research questions are covered in the theoretical literature review. The empirical data will open some of the questions in more detail and also answers the question if the new Silk Road has place in Finland, and if so, how it will affect Finland's logistics industry.

1.3 Conceptual framework

Figure 1 is the conceptual framework of the thesis. The conceptual framework explains and visualizes the infrastructural and logistical topics mostly from Russia's point of view. All are covered in the theoretical part of the thesis. The empirical data also adds more information to the topics of the conceptual framework and answers questions in more specific and detailed way. The conceptual framework encapsulates the infrastructure opportunities of the new Silk Road, what transportation modes are used, and are to be used, how the road transportation is connected to the infrastructure, and how political relations affect the international collaboration. All these topics are interconnected to each other and in order to get the general overview, all these “steps” are explained to get an understanding to the infrastructural and logistical opportunities in the initiative.

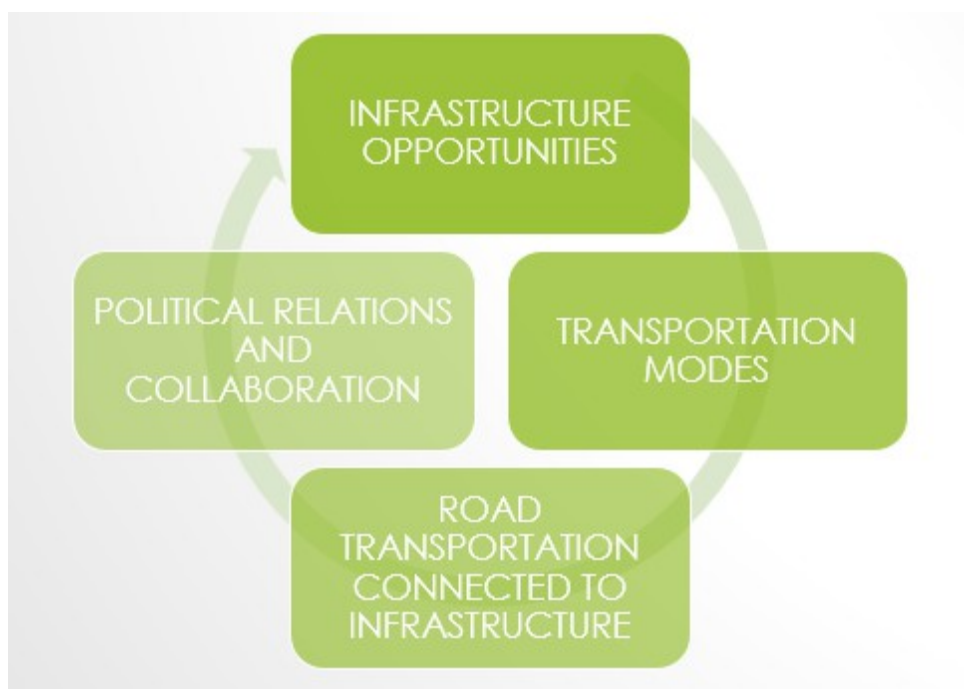


Figure 1. Conceptual Framework (Made by the author 2017)

1.4 The structure of the thesis

The thesis has two parts in it. The first is literature review, the theoretical part, where all research questions are answered in the area of infrastructure and logistics. Although the thesis is mainly from Russia's input in infrastructure and logistics, it also covers other countries' contribution and development to the Silk Road. The second part is the empirical data. The empirical data contains interviews. In the theoretical part, the information is focusing on covering the literature. All the issues related to the topic are answered. The empirical part has interviews from the North Karelian Chamber of Commerce, Cursor Oy, and The Regional Council of Kymenlaakso.

The whole thesis have six parts in it in total with handful of subsequent chapters explaining with more in detail the issues and answering the research questions. The first part introduces the topic and all the information needed to gain the information, such as research questions, research problem, conceptual framework. It also gives full overview to the infrastructural and logistical opportunities in the initiative in

Russia and in international manner. The second chapter is about the theoretical information and data gathered from various sources. It discusses the infrastructure and logistics which are needed to the new Silk Road in order to developed and further expand. It mostly discusses Russia's opportunities in the Silk Road initiative as well as international and also global opportunities. Political issues are also important in an initiative with several countries contributing into it, and how possible conflicts are covered. The scope of the thesis topic is covered in full in the theoretical part of the thesis. The third chapter is research methodology, where interviews are held and the answers studied. It explains the collection of data, analysis of data and it also covers the scope and limitations of the thesis. The fourth chapter covers the results gathered from the empirical data. The fifth chapter summarises the results and concludes the findings with brief summary of what was the research about and what was found out in order to give a general overview of the thesis topic. The sixth chapter is about the recommendations and suggestions for further issues and questions. It explains if the new Silk Road would work in Finland, and what opportunities would Finland have in the initiative. The last chapter concludes the thesis with final words from the author and author's own opinions toward the topic.

2 LITERATURE REVIEW

2.1 Russia's logistical opportunities in the Silk Road

Russia and China are preparing documents to the projects for the new Silk Road and Eurasian Economic Union. Sergei Lavrov (Russia's Foreign Minister) has pointed out that the project is not just between Russia and China but rather all who are interested, and are open to access, are more than welcome to participate. Sergei Lavrov has said that all the principles and conceptual framework are yet to be developed, and these limits help to specify the outlines, if they are sufficiently well-developed. (Website of Trans Info News 2016)

The new Silk Road will open opportunities for Europe and Asia in transportation and logistics. The “One Belt, One Road” (also known as the new Silk Road) initiative is particularly great opportunity for both Europe and Asia in the fields of transportation and logistics. The new Silk Road also offers development opportunities for the transport and logistics systems in various countries, not just in Russia. The new Silk Road offers cooperations, for example in logistics and in distribution of goods. Few countries (Lithuania and Belarus) have already executed projects in the fields of logistics and transport. Also possible expansions in the Silk Road are being talked about. The road initiative is shaping the world and modernizes the Silk Road with politics, culture, and commerce. It is not just connecting countries, it creates networks between countries and continents.

It is highly important that companies along the Silk Road would participate, because for it to be profitable, in long-term, it needs transport companies with their own goods for export. The new Silk Road is about infrastructure and creating new opportunities in doing business globally. The new Silk Road can be also used to transfer resources, and even energy, it can also transfer humans, as humans are also a resource. The new Silk Road can open ways to transfer workers from one place to another in a fast and economical way.

There is Hyperloop being developed to be built through Russia. Hyperloop Technologies Company is considering to construct a “new Silk Road” via Russia from China to Europe. Hyperloop can also transfer cargo containers from China to Europe, according to co-founder Sherwin Pishavar of Hyperloop Technologies. Hyperloop is discussing with Russia, in the long-term, for the possibility of Hyperloop being integrated in to the new Silk Road. Russia has said to work on the implementation of the Silk Road cargo Hyperloop. The President of the Russian Federation, Vladimir Putin, has said to support the Hyperloop project. The financial support has not been covered in the Hyperloop project meeting between Russia and Hyperloop Technologies.

Hyperloop Technologies transport project is a businessman Elon Musks concept. Hyperloop is planned to carry passangers through pipes under a low pressure (near vacuum), and it can reach up to 1,200 kilometres per hour in speed (Website of RNS 2017).

In the new Silk Road there is two segments respectively, railway transport being the first part in the “One Belt, One Road”, the second is the Maritime route which goes through China to the Indian Ocean. The new Silk Road is not just an economic belt, but it also includes maritime (maritime Silk Road), known as the sea based component. The purpose in maritime Silk Road is to connect coastal countries of Southeast Asia, the Middle East, and East Africa. But the main Silk Road is situated between continental states along the Eastern Europe and Central Asia. All this means that the infrastructure is being developed and re-developed and it includes railways, roads, pipelines, and ports. The transportation of goods by sea can take up to 40 days when reaching Russia. For the new Silk Road, this is an opportunity to prove itself. The new Silk Road would save atleast of one month in transportation time, and the costs would be 80 percent less when compared to air cargo.

The cooperation between the countries located along the way of the Silk Road present a much shorter and cheaper corridor. Before the new Silk Road can function properly, all the logistical weaknesses must be solved (meaning for example, all the possible technical problems and bottlenecks). Also delays must be taken into consideration. The reasons for possible delays can be many, like lack of payment by

customer. This can delay the train schedule for days. The new Silk Road primarily transfers goods, for instance clothes, fabrics, and other materials. It also can create energy transfers between countries along the Silk Road. The road has many networks, for example railways (high speed), highways, pipelines, fiber-optic cables, and ports.

2.1.1 Costs and time comparison

Costs and time comparison between railway and maritime transportation:

- Railway: It takes about 10 – 15 days to transport containers from China to Europe. The costs are approximately 5000 US dollars.
- Maritime: It takes about 40 – 60 days to ship containers from China to Europe. The costs are approximately 350 – 500 US dollars per container.

2.2 Transportation and infrastructure

Image (below) shows that there are infact three different routes in the new Silk Road and China has also stated that. The first is a route that goes through Mongolia and Russia to Germany. The second route passes Central Asia. And the third is a maritime route. The maritime Silk Road means mainly South East Asian region. This is because China has ports where cargo ships have direct path to destination ports. The new Silk Road wants to exploit and develop the neighbouring countries and to have a “diplomatic” relationships and thus have a geographically wide area for doing business. This wide area enables increased transport volumes. It also enables for European companies to export their products to new markets. It provides a growth in European economies. The image (below) does not show different train corridors in the main land area of Eurasia. It is an illustration of the scope of the project. There are routes for trains and more routes are being developed. (Website of CKGSB Knowledge 2015)

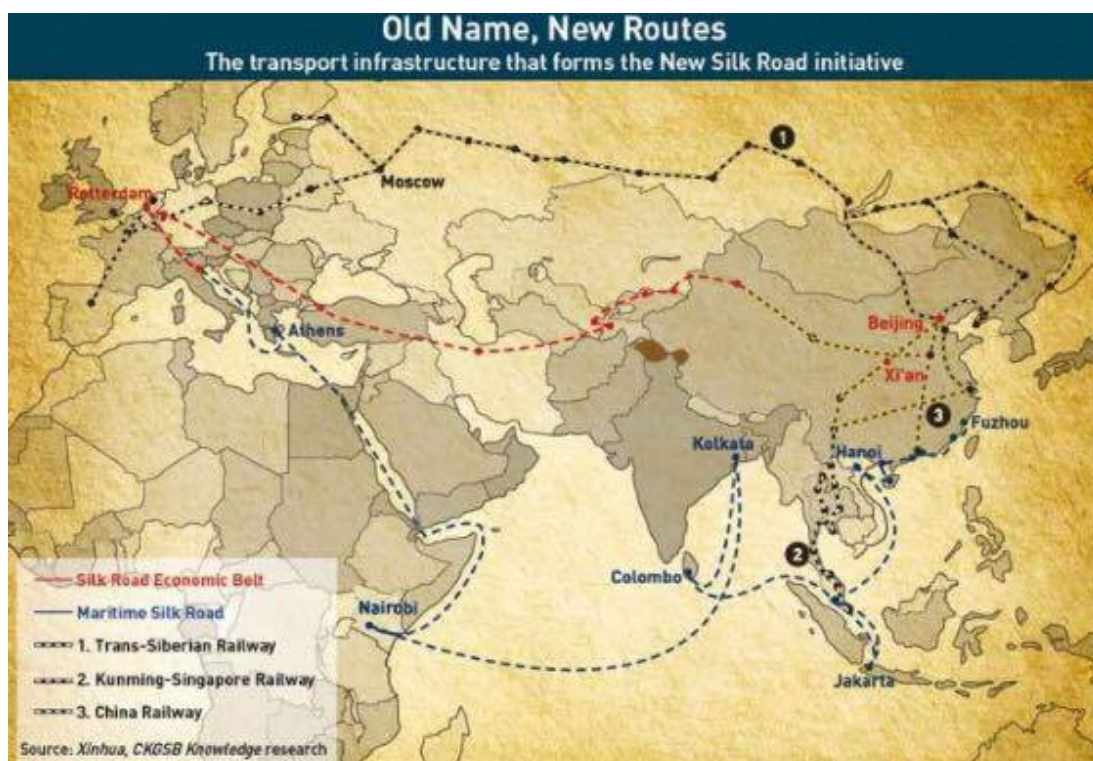


Figure 2. Infrastructure scope of the new Silk Road (Website of CKGSB Knowledge 2015)

The new Silk Road and its implementation is the largest international infrastructure project in a recent history infrastructurally. The initiative itself has already been started from the beginning of 2017. Basically, the new Silk Road connects Europe, Russia, and China into a belt by railway. As the network grows, naturally new routes and corridors are being created and stretched further. The project acquires construction of a transport corridors. The length of the corridor is 8,400 kilometres and it will cross the territory of Kazakhstan, Russia, and Belarus. Western Europe is said to be connected to the road by 2023. (Website of VentaLife 2016)

The main transportation mode is train due to the fact that it is fast and relatively cheap. For goods that need to be fast in the markets, such as apparel, the Silk Road offers fast corridor. Also goods with high-value, for example automotive parts and electronics, the Silk Road is favourable option when compared to maritime transportation.

If this infrastructure initiative is successful, it is said to change the face of logistics in global manner. This would enable to save time on the road. Some calculations have

been made and the results are that transporting goods from China to Europe would take about 11 days. For the train connection, in an 11,000 kilometre long path, there are terminals for trains planted along the Silk Road for easy transfer.

Today the majority of freight traffic is carried out by sea route through the Suez Canal (between Europe and China). The sea route can take between 40 – 60 days and it is about 24,000 kilometres in length. The sea route, compared to the new Silk Road, can provide a high level security and more importantly, and compared to the current sea transport time, it will reduce the time of travel at least ten days. Currently the majority of freight traffic between the European Union (EU) and China are transported by road due to the fact that the transferred products are with added value and gravitating to transport by road.

Russia's part in the route segment is 2,200 kilometres in length. The starting point of the transport corridor is said to be situated in Orenburg, Russia. The highway will also cross cities of Kazan, Nizhny Novgorod, and Moscow. The end point has the access to the ports of the Baltic Sea and Barents Sea, Saint Petersburg and Murmansk. There are already been built number of sites (Website of Ventalife 2016).

There should be emphasis placed on multimodality. This basically means that there should be several infrastructure objectives. This could offer choice of options to the customer for different transportation routes, where the most convenient would be chosen.

The new Silk Road initiative would be beneficial addition to the construction of railroads with several directions. There is already planned implementations and some are already being implemented, for example terminals. There are construction of new terminals already started.

Russia's participation is playing an important part in the initiative. Russia has already planned and worked out the route that will go through Russia. In the whole Silk Road initiative, Russia and China are in close cooperation and play an important role.

The new Silk Road is vast and enormous project when talking about land development and maritime transportation. Also cyber infrastructures, minerals, and energy are included into it. Russia has signed commercial contracts with public and private sectors with China. Also political deals have been signed with China as well

as with countries and continents along the new Silk Road. The new Silk Road is massive and its circle reaches Rotterdam, the port of Quanzhou in Fujian, Kenya, Egypt, and Europe.

Because Russia and China have several partnerships developed, the new Silk Road is a natural cooperation between the two powerful countries. The two countries share a 4000 kilometre border.

The new Silk Road connects three continents to its circle and creates huge network. The new Silk Road consists from land transportation routes and corridors as well as sea routes. This was the case in the ancient Silk Road as well.

The maritime route start from Quanzhou in Fujian. Then it continues to southern ports in China. After that comes the Malacca Strait. Malacca Strait is a narrow water area in between Sumatra and Malay Peninsula. Malacca Strait connects the Indian Ocean and the Pacific Ocean (connects east to west). It is about 850 kilometres in length. After the Malacca Strait the maritime Silk Road goes to Kuala Lumpur and after that to Kolkata. After Kolkata the sea route continues its way across the Indian Ocean and heads to Nairobi. Then it goes to the Horn of Africa. The European borders are reached from the Mediterranean before it stops in Greece and then continues to Italy. The maritime route is about 22,000 – 45,000 kilometres long (depending on the destination). For shipments (single container) the average transportation time is approximately 18 – 21 days. (Brugier 2014)

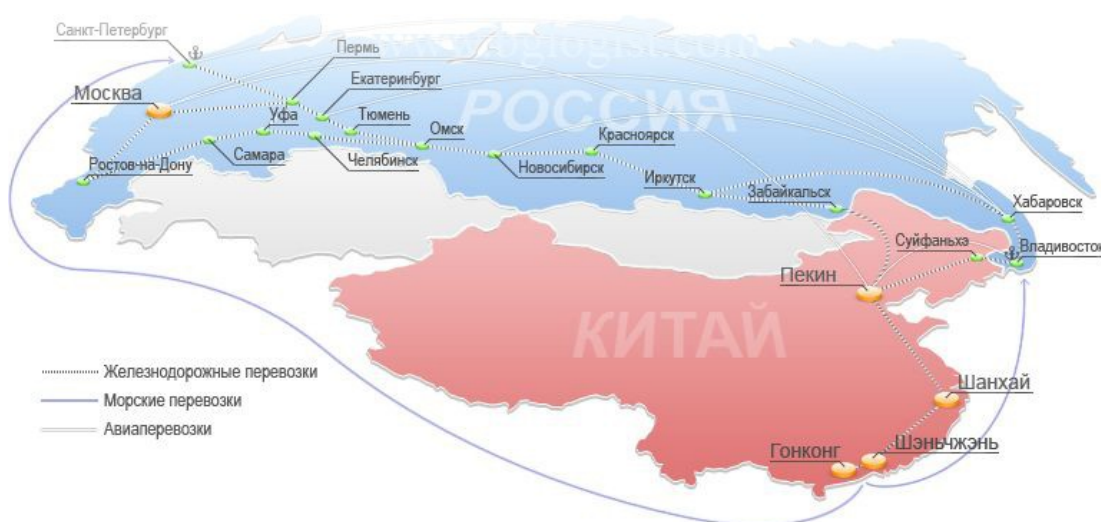


Figure 3. The new Silk Road (road, sea, air routes) (Website of BG Logist 2014)

Russia has the power over the Arctic region in Eurasia. The trade authorities with industrial and political authorities in Russia are creating trade corridor, which includes maritime, energy, and industry and this corridor is connecting Europe and Asia.

The transportation opportunities in the new Silk Road are vast, to say the least. It can reach several countries, for example the new Silk Road has reached as far as England. At the beginning of 2017, first freight train came from China to London, England according to news from United Kingdom. The city of Yiwu in Zhejiang Province reports from January the 3rd that the train of the new Silk Road has crossed 12,000 kilometres. It was a two week long drive from China to the English Channel. In its journey, the train went across the territories of Kazakhstan, Russia, Belarus, Poland, Germany, Belgium, and France on the English Channel to London, England. It was reported that the first train carried fabrics, clothing, and household goods. China is planning to open a regular and direct rail link of goods to Europe. This is because rail transportation is cheaper than plane, and it is approximately two times faster than the sea. China is planning that the composition will operate in this route atleast once a week (Website of BelTa 2017). China has expanded its rail transport to Europe in the framework of the new Silk Road because it will create a niche for cheaper and faster transport. The new Silk Road corridor would be beneficial for China. The reason is that China desires common economic space. In one common economic space, there would be a single tariff barrier from China's borders to Europe, and China sees that as beneficial for the trade. (Website of Trans Info News 2017)

China is planning to open a new corridor that would track the old ones. Also Ukraine has been interested that the new corridor would pass its territory, named “the Iron Silk Road”. Ukraine would open with China a direct railway line that would go through Georgia, Azerbaijan, Kazakhstan, and the Caspian Sea, bypassing Russia. (Website of South China Morning Post 2016)

China finances most of the infrastructure projects. The size of the project with all the trade lines combined is approximately 65 countries with combined population of 4,4 billion. The new Silk Road can establish new partnerships and develop already

established ones through export of energy in Central Asia, the Middle East, and Africa.

Because the Silk Road initiative is a vast and huge project, it also means that even though all risks are being analysed, but due to the size of this project this also means that not all the risks are being supervised nor even figured out yet. (Website of BG Logist 2014)

2.2.1 Transit corridors

There have been discussions about the transit routes/corridors, and the analytical report of the International Discussion Club “Valdai” wrote that there would be three groups of transit corridors from Western China to Europe.

- The northern route, which is considered of being the most promising, and it is already being prepared. The northern route goes through Kazakhstan, Russia, Belarus, Poland, and Germany (Trans-Siberian line).
- Then there is sea route which path includes routes that pass through the territory of Kazakhstan and it also uses the Caspian Sea ports for transit to Turkey.
- And finally the southern route. The southern route bypasses the territory of Russia through Kyrgyzstan, Uzbekistan, Turkmenistan, Iran, and Pakistan with access from the Indian Ocean to the Persian Gulf.

The different sections of the new Silk Road develop different areas with transportation infrastructure. The main corridor in the Silk Road is the northern route (Kazakhstan, Russia, Belarus, Poland, Germany) and it transports goods from Western China. The northern route is 10,800 kilometres long and it takes approximately two weeks from China to reach Germany. The average transit by Silk Road is anywhere in between 14 – 18 days for block trains. (Website of Regnum 2016)

The experts have said that redirecting customers from the usual delivery by sea to land transit might be troublesom. But the focus should be on attracting the potential transit countries to join for the modernization of the Silk Road's infrastructure. Also

other matters, taking into consideration, the importers should have the right to choose the most advantageous path length. Minor down side would be that not always the goods pass through the corridor.

The southern route corridor, where the railway tracks do not pass Russia means that the corridor bypasses Russia and goes below the Caspian and Black Sea all the way to Turkey and then to Europe. The southern route corridor is also interesting because it allows the new Silk Road to be connected directly to the Middle Eastern markets.

The path that the Silk Road would have in Russia is a long railway route, and it will have an interest when transporting small objects with high-value. Nowadays the usual transport for high-volume mass-produced goods go by sea to Europe. The new Silk Road would make it possible to start transporting high-volume mass-produced goods through Russia to Europe by train.

The most beneficial route in the new Silk Road for Russia would be the northern route. This would be beneficial to Russia's own economic development. The European Union (EU) stands as an interest for Russia, because the EU is the main cargo destination; also because the EU is Russia's largest trading partner. Although there is sanctions towards Russia, The EU still remains an important partner. The largest EU trading partner for Russia is Germany.

2.2.2 Direction of ways, customs, tariffs

The main direction of ways is already been evolved for the delivery of goods from the countries of East Asia, South-East Asia, Central Asia, Russia, and Europe. These routes are developed to work as well to the opposite direction. In addition, the workload of seaports are increased by double what they are now.

In the Silk Road there is two routes that go through Russia. Russia would prefer that all the routes would go trough its territory. This would have a competitive advantage and also strategic advantage.

For the initiative, important point would be to accelerate the procedure of customs borders. There is a notion of “single ticket”. This means goods that are passing Kazakh border can cross borders of the other countries too without customs handling.

This would speed up the delivery process. The reason why Kazakhstan would be the place for getting the “single ticket” is that the Value Added Tax (VAT) rate (at 12%) is the lowest among the countries of the Customs Union. This would be beneficial for importers to undergo the taxation procedure in Kazakhstan. For the new Silk Road, Kazakhstan would need to work on and solve problems with tariffs if Kazakhstan would be the place for the “single ticket” due to the low VAT rate. But all ambiguities can be overcome along the way. (Website of Logistics Management 2016)

It would be necessary to reduce the transportation tariffs. This would have a competitive advantage on the existing routes through Russia. Russia's territory's existing logistics have already been established. Ports of Novorossiysk and Saint Petersburg are ready to send the goods to Europe. There are also well-developed logistics infrastructure in the European part of Russia. This attracts cargo flows to its territory.

It is also important to have well-trained staff, and Russia has it in the field of transport and logistics. In Saint Petersburg alone there is about 500,000 people working in the transport and logistics areas. In a staff related regard, the active work is being covered. Eventually all the experts in these areas will be prepared and trained.

Not all the costs are figured out yet and the rationality of the implementation of the project is yet to be proved. For example currently there is no information available for the costs for state and road repairs.

The new Silk Road initiative still needs to be arranged to countries' legislations and to their customs service. (Website of The Siberian Times 2016)

2.3 Opportunities in the infrastructure

The new Silk Road compared to the original one, which began around 207 BC – 220 AD, is developed by the largest trade and transportation organizations in the world. This opens opportunities of almost one billion US dollars in transportation by rail and by road. The new Silk Road would be equipped with modern day technologies

used in surface transportation. All the current technologies now available for the new Silk Road would enable to transport goods in just days, compared to the weeks, and even months, that they currently do by ocean transport.

There have been discussion that the corridor between Europe and China would open in the next ten years. The corridor would have the “power” to reduce delivery time and costs in freight by two weeks or more (compared to the sea transportation).

Because the new Silk Road reaches the Middle East, for example Afghanistan, this means that instabilities would occur in some areas. The “One Belt, One Road” (OBOR) would have a securing and stabilizing effect on the unstable areas.

The “One Belt, One Road” transports goods with high-value in a decreased time when compared to the current sea transport (although it is cheaper, it is considerably slower compared to train). It is also affordable, and thus it is an opportunity for many businesses. (Website of Combined-Transport 2017)

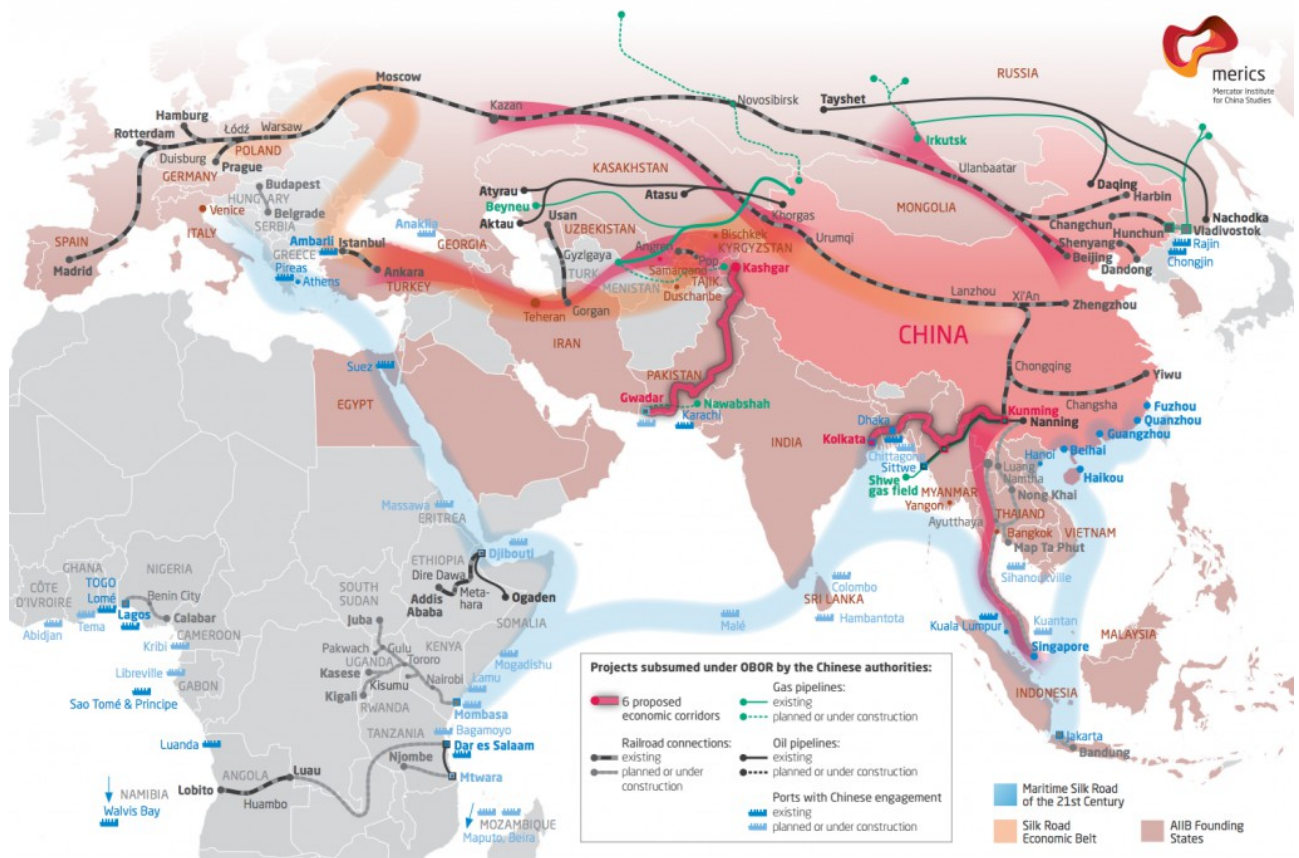


Figure 4. “One Belt, One Road” projects (Website of Combined-Transport 2017)

2.3.1 Example: Hewlett-Packard Company

Hewlett-Packard Company is located in China in a technology zone and it is situated near the routes of the Silk Road. For HP the new Silk Road offers a quick and easy, and thus popular corridor for its products to reach Europe. HP electronics are packed into a railway container. Then they are transported via railway to west.

The new Silk Road decreases the process of transportation and time. Also financially in future it would be much cheaper option when compared to the transportation by sea. In the Silk Road there is interconnected railways and railway systems from China to Russia and to Europe.

Transport by train, and especially through the new Silk Road has enabled to reduce the stock financing for HP. This has a favourable effect for HP and to its cost savings and rate in product throughout. (Website of Combined-Transport 2017)

2.4 Political decisions and its effect

Important question is why are so many countries investing to the new Silk Road? First reason would be that countries along the new Silk Road want to have stable political position. Also economical growth has securing effect. The citizens along the Silk Road would have stable working places due to thousands of new job places created by infrastructure projects. The buying power increases and thus a wealth of a country.

It is important to understand that different countries have different practices in foreign policy. Although there are two powerful countries joined to the new Silk Road, it also means that respecting and balancing the relationships are crucial. There are differences in all areas, for example in politics and economics. Country's history plays an important part in the whole initiative as well. So, different approaches are important when politics are being discussed. (Website of Ranepa 2017)

The project is not exclusive for just selected participants. It is an open initiative where everyone who is interested to invest are welcome. In fact, it is what China is trying highlight and elicit. The Silk Road needs investments from Europe, Russia, and other countries with interest. International and global investments and partners are vital to the development and for its long-term success. The Silk Road is targeting the main European Union (EU) states of Germany, Italy, and France. For the Silk Road to work in long-term, the widening of the Silk Road is to be built in stages. This allows the contracts and agreements to be strong and durable.

Russia has a lot to offer to the new Silk Road, and with China and Kazakhstan they form “locomotives” to this initiative. The countries who have invested a lot of finances and time to the project are also important, but without Russia's interest the new Silk Road could not fully work. There are problems included to the whole initiative, but the most severe is international relations and politics. Not just the whole Silk Road with its logistics and transport corridors. (Website of OSW 2016)

The deals between Russia and China, and frankly with all the participants, have strategical and political meaning. The countries along the new Silk Road have opportunities to develop their own republics and to influence the development of the new Silk Road. The new Silk Road can have prosperous effects to the countries along the way. It can give a securing effect and it can help to strenghten the borders of the new Silk Road. In areas where there are political uncertainties, the new Silk Road can have a “conflict settlement” effect. For example guards can offer safety and security along the road. (Website of Europea Council of Foreign Relations 2016)

The new Silk Road is composed primarily from bilateral agreements between Russia and China. It is primarily an infrastructural integration. Railroads are important, if not the basis of the whole Silk Road. There have been negotiations with some thirty countries along the Silk Road, and the investments are huge. The Silk Road plan alone has gotten around 7 trillion US dollar investments, and investments to all the related projects have gathered around 25 billion US dollar investments. (Kobrinskaya 2016)

The new Silk Road does not have free-trade zones yet, but in time it is possible. In the free-trade zones, there are altogether approximately 3 billion people. There is energy resources and mineral resources. It can also access as far as the Middle East.

The new Silk Road has the power to create new job places. For Russia, it would be beneficial that Russian companies would participate to the supply chains in cross-border areas in Asia. The new Silk Road gets approximately 60 percent of Gross Domestic Product (GDP) from oil industry. The Russian Gross Domestic Product per capita would positively be doubling or even tripling. Joining to the Asian economy is an opportunity that would benefit Russia positively. (Website of Salvatore Babones 2016)

Some countries have agreed to participate to the “One Belt, One Road” project but for political reasons they are bypassing Russia's territory. This has nothing to do with economic reasons. Ukraine and Russia's tightened relations mean that Ukraine is bypassing Russia by building a road so that China would transport its goods through Ukraine. Relations are important between countries in the new Silk Road. It is not all about economical relations, but also political and even cultural. Historically, trading countries did not have large wars between each other because they were trading vital and all-important goods. War would mean bad business. (Website of Russian International Affairs Council 2013)

The political situations are a very serious matter in the whole Silk Road initiative. Uncertainties in politics can have an effect on the transportation schedule. It can delay transportation of goods and thus have a serious effect on the continuity of the whole system.

Poland acts as a door to Europe in the “One Belt, On Road” initiative. This is due to the fact Poland is strategically placed in between Russia and European Union. And because Russia and Poland are not in friendly relations this can be an awkward subject when thinking where the Silk Road would pass to European Union. (Kobrinskaya 2016)

2.5 How does Russia benefit from the initiative?

The new Silk Road can be greatly beneficial when talking about strengthening of the economies of neighbouring states. The new Silk Road would connect Asia, European countries, and Russia. The economic prospects for Russia, after the implementation of the new Silk Road project, would be beneficial and Russia's participation is necessary to the new Silk Road. The new Silk Road offers desirable trade, industrial, and financial environment. National, regional, bilateral, and global levels are the reason why Russia has invested to the new Silk Road. Russia and China's cooperation is strategic and mostly bilateral. For Russia and to its economy, the cooperation is about to strengthen its position politically and economically.

Kazakhstan already has fully developed transport and infrastructure which is needed to the new Silk Road. To its development, there is already 3 billion dollar investment done for the next two years. This investment allows the project to be ahead of its schedule. This is because some roads and ways can be build in a faster pace. Kazakhstan has already built approximately 1,250 kilometres of railways. This has reduced the path to only 1000 kilometres. This shows clearly that Kazakhstan is serious with the development of the new Silk Road and moving towards to the development of road infrastructure for the new Silk Road. Also Kazakhstan is interconnected to the Russian and Chinese railway network.

Russia would benefit from the initiative with increased speed of transportation of goods from Asia Pacific to Europe. This would be beneficial to not only Russia, but also to Central Asian countries. This is because Central Asian countries would earn monetary resources from both sales of goods and processing of sales of goods.

The development of unified infrastructure brings countries together in the manner of transport. When everything is figured out, meaning the traffic patterns, rates and costs, and costs for road and repairs. After that can the new Silk Road be formed. It needs investments from every country along the way of the new Silk Road and also from countries who are interested of taking part to the initiative. It would be beneficial to all participants (“win-win” situation).

As it has already been mentioned few times that the new Silk Road would enable to reduce both shipment time and costs between China and Europe. The regions, including The Central Asia, Caspian, South Caucasus, and Black Sea form a transit corridor. This specific corridor is strategically important between Europe and China. The corridor connects economies, people, trade, modern trans-Caspian trade and transit routes from Europe to China. It also encapsulates infrastructure network, harmonized customs, special economic zones, cross-border procedures among others by the route. The new Silk Road offers opportunities of strengthening energy alliances, and for Russia (Gazprom) this is an opportunity to sign deals with China (with China National Petroleum Company, CNPC). There will be also new pipeline to be built. The new pipeline is to be built from Siberia to China. The deal is worth of 400 billion US dollars for the next thirty years. It supplies 1,3 trillion cubic feet of gas per year (a quarter of China's current consumption of gas). Russia and China have an energy deal, and because China is using external energy sources, this is advantageous to Russia. China buys about half of its energy outside its borders. It is buying energy from Russia to its ever growing energy needs.

The countries along the new Silk Road, such as Kazakhstan, Uzbekistan, Turkmenistan, and Azerbaijan, all have gas production, and this fact is important in Central Asia. All energy production from the countries mentioned are transported via Gazprom pipelines, which are owned by the Russian National Gas Company. The member countries from Central Asia of the new Silk Road have integrated the infrastructures from the Soviet Union. (Website of Red Analysis 2016)

Russia has the capability to influence the Central Asian region. This gives the Central Asia a Russo-Central Asian network. Russia has a dominant influence in the whole Silk Road.

For Russia to benefit from the initiative, it needs China to invest and work as a source of investment to Russia. This is because Russia has blocked European money. This has to do with the sanctions towards Russia, and counter sanction towards Europe. European Union (EU) has shown some interest to the “One Belt, One Road”, but for now there have been indecisive answers. The Baltic countries have shown interest the most towards joining the new Silk Road. Otherwise the reactions have

been more or less divided. This has to do with the fact that Europe wants to keep its distance to Russia and to China and preserve competition between the two powerful countries. (Website of Red Analysis 2016)

2.5.1 Competitive advantage

The competitive advantage of the new Silk Road will be based on the implementation of speed, service, cost, and stability. For Russia, the new Silk Road means faster transportation of products.

The new Silk Road also has beneficial impact to mining. Kazakhstan has 12 percent of uranium resources, and it stands as the world's main producer in it. Russia has also developed its uranium refining industry. Taking into account of these two situations, Russia has integrated Kazakhstan's uranium production to its own nuclear industry.

The new Silk Road has a competitive advantage in a way that it increases and strengthens cooperation between Russia and China. Russia has more competitive advantage when compared to China. This is because Russia has cheap currency at the moment. Russia has also relatively cheap energy. Several countries and companies are building factories in Vladivostok due to low labour costs. This opens an export corridor to Pacific. Now it is relatively cheap for countries to export manufactured goods from Russia, thus making it competitive. Vladivostok has a free port that allows a cheap and competitive place to export.

For energy supply, China opens new market opportunities for low-value and increasing high-value goods, and thus needs to secure energy supply routes. (Website of Regnum 2016)

2.6 International environment

The new Silk Road initiative is widely international, even global. There is number of countries who are willing to join the new Silk Road initiative. And this is a positive event because the scale of investments are considerable. The Silk Road, the economic belt, would be Chinese more or less.

The new Silk Road is about creating alternative transport corridors between China and Europe in Eurasia. The fact is that the aim is to create and build up new economic partnerships in Central Asia. (Website of Rediff Blogs 2016)

Kazakhstan is a regional key player and the Chinese are interested of that. The new Silk Road has gathered high-ranking officials from China, ministers of the Baltic countries, the leaders of large transportation companies, and the representatives of railway companies. It is important to bear in mind that the ground shipping routes from China to the European markets are not yet determined, but there will be few.

Kazakh company KTZ Railways operates in China in 11 provinces. Between China and Europe there is daily unit trains, and the goal is to increase trade in surface transportation. Between China and Turkey there is 100 billion US dollar trade, and between Europe and China their goal is to get in to a 800 billion US dollar trade in surface transportation. To KTZ Railways this would be huge opportunity of growth in surface transportation. With the new Silk Road corridor this possibly would enable between 8 – 10 percent growth to KTZ Railways. Combining the markets of Kazakhstan, Azerbaijan, Georgia, and Turkey there is over 110 million consumers. Between these countries there is different solutions offered of integrated and customized supply chains.

The countries who are participating, who are “members”, to the new Silk Road have a lot of work to be done in a sense of making land transportation competitive. When talking about the realistic and actual traffic flows, the fact is that all routes are important in efficient logistics. The most important thing is to remember, in creating stable route, is the focus point in the new Silk Road in order it to work and be profitable.

For reducing costs and increasing the speed of delivery of goods, the logical solution would be transfer of production capacity in China more closer to the border of Kazakhstan. It could also be moved on the territory of the Central Asian Republic (this is what the Chinese leadership would prefer). The purpose of this would be solving the economic and social problems of the country's western provinces. Kazakhstan has the most extended section in the new Silk Road, so the greatest possible economic benefit must be extracted from their participation in the project.

Transport by itself does not bring benefits to anyone. Thus there must be value-added in order it to be a smart transit.

Kazakhstan has an important role in the One Belt, One Road project. Kazakhstan is the 9th largest country in the world and situated between Russia and China. That creates a valuable location geostrategically.

Kazakhstan has proved itself in the Chinese infrastructure project. It has pointed out a favourable investment climate and a growing economy. It is interesting that the idea of creating fundamentally new transport system for the delivery of Chinese goods was the push that pushed Kazakhstan forward. The new Silk Road will help and develop the transport corridor from China to Europe via Kazakhstan.

The international interest and attendance has confirmed that the corridor is an opportunity and it is a present matter in transportation and logistics community across the globe. Kanat Alpysbayev (Vice President of KTZ Railways) added that developing the corridor's freight infrastructure alone can have changing effect to the entire supply chain in the region. The improvements of the transportation infrastructure are under construction, due to local initiatives that could improve them. For developing the region, all infrastructure projects related to the region should be aligned to bring the attention to the logistics needed. The cargo transportation, nowadays mainly deep sea transportation, needs development. The cargo preference choices should have more attention drawn into, and this is where the Silk Road corridor is thought to have a positive impact. (Website of Logistics Management 2016)

Cooperation level is reached in regional policies between China and Russia. Now there is coordination needed to mold the balance in investment and trade. The fact is that the Silk Road initiative is both economical and political.

In the new Silk Road there is agreements, mostly bilateral agreements between Russia and China. Some agreements include the New Development Bank (The BRICS Bank), Shanghai Cooperation Organization, and Asian Infrastructure Investment Bank. Both of the countries have similar views towards the US and its global position. In the new Silk Road, Russia and China are partners who share opinions and agreements.

China has two cities where two routes start, Chongqing and Chengdu. These cities are located in China's high-technology zones. Now the routes have formed a network where Europe and Asia are connected.

Because the new Silk Road is multinational cross-border initiative, this means that there are different regulations on railway transportation. The new Silk Road covers huge land area. This means that different weather conditions must be taken into consideration. In every region, there is different conditions and specifications to follow. One major thing is the width of the rail. For this reason there is no “one train” going across the Silk Road. This is why containers are to be used, because it allows easy transfer from one train to another. It is also economical and safe way to transfer goods along the Silk Road.

Other current subject on today's businesses and their image and message is eco-friendliness. When talking about eco-friendliness, the Silk Road's railway transportation is much more eco-friendly to its counter part, sea transportation. There have been calculations and it shows that for carbon footprint savings are about 75 percent less by rail when compared to the sea transportation. (Website of Combined-Transport 2017)

2.6.1 International conference: “The new Silk Road – reliable connection between Europe and Asia

There have been several conferences organized about the new Silk Road, where the reliability of the initiative has been measured. The conclusion is that the new Silk Road would create a reliable and dependable connection between Europe and Asia. In an international Lithuania – Kazakhstan logistics conference the discussion was primarily about the logistical connections, and whether they would be reliable between Europe and Asia. This specific conference was the first act of actions taken towards the new Silk Road in the fields of direction and supply chain management in Asia – Europe – Asia. The conference “the new Silk Road – reliable connection between Europe and Asia” had valued participants, such as the Prime Minister of Lithuania, Algirdas Butkevicius. This points out that the new Silk Road is a serious and current initiative between several countries. In the conference, there were also

invitations sent to the Kazakh authorities of authorized traffic and transport. Other country who took part to the conference was Belarus. Also international and regional organizations, major transport companies, national companies, associations and other organizations, the Ministry of Transport and Communications of Belarus, Lithuania, and Kazakhstan were on the scene.

The purpose of the conference "The new Silk Road – reliable connections between Europe and Asia" was to collect and gather experts from the transport industry from Kazakhstan, Belarus, and Lithuania and to get acquainted with the latest achievements in the practice of logistics transport systems in their own countries. Also the discussion was about to exchange experiences of application of methods and techniques of logistics and development prospects for the development of transport corridors. One of the main topics of the conference was the new Silk Road and discussions of transport and logistics projects between Europe – Asia – Europe in the development of the Silk Road on the land area.

Conference "The new Silk Road – reliable connections between Europe and Asia" was an excellent opportunity to establish new business contracts with countries who are interested of the initiative. It was a unique platform to discuss the possibilities of joint transport projects between ready and current minded participants.

The international projects, concerning the new Silk Road, helps to connect European transport networks and Asian transportation networks, thus reducing delivery time. It also reduces costs in transportation for delivering the goods to Europe from Asian markets. (Website of Port of Klaipeda 2015)

3 RESEARCH METHODOLOGY

3.1 Reliability and validity

The information gathered to the literature part are from various sources. The sources are reliable and from reliable articles. Most of the articles are from news papers.

There are some sources from studies and essays from students and from reliable researchers. The sources are valid due to the fact that they come from international and well known news papers. The validity of the sources can be explained that the information gathered from the sources were similar between the various articles, so the contents were consistent.

The author of this thesis heard about the new Silk Road from an international lecturer from Poland. The topic was interesting and current in international scale. The author did not have any knowledge of the topic before, but gained all the necessary information to the topic from international articles when writing the thesis. The author had in mind that the thesis topic would somehow be about Russia. This is due to the fact that Russia in general is an interesting country and topic itself.

First, the author had to research about the topic from internet articles to gain a basic knowledge and to form a literature review to the thesis. This was necessary because in order to manufacture a valid empirical data, the author had to gather valid and reliable theory part. For the empirical data, the base knowledge came from the literature review, and this formed the base for the interviews in order to gather more extensive information.

The interviews are intended to North Karelian Chamber of Commers, Cursor Oy, and The Regional Council of Kymenlaako. These sources of information gave a more extensive and more comprehensive outline for the topic of the new Silk Road. The author chose North Karelian Chamber of Commerce because in Finland there is no information in media about the new Silk Road. And Cursor Oy and The Regional Council of Kymenlaakso, which have connections to Russia and to the “OBOR” initiative, were chosen because they can offer information that can be compared to the findings in literature review and form a debate for the whole initiative, and whether it could work in Finland. The interviews also validate the findings in the literature part.

3.2 Research methods

The thesis' research method was qualitative research. This means that internet sources were used. Primarily international articles, both in English and in Russian, were used to gather all the necessary information to form the literature review of the topic of infrastructure and logistics in the new Silk Road. Quantitative research method was not used in the thesis.

The qualitative research method was used because the thesis was research based. Internet articles and studies were used in order to gain the knowledge and information to theory part. Qualitative method was the most suitable for this thesis because the only information source came from reliable internet articles and magazines, thus making the qualitative research method the most suitable.

3.3 Collection of data

The collection of data in the thesis is done by reading various articles in English and in Russian and gathering all the needed and basic information to the topic of this thesis. The author reads various articles in a day (approximately 5 hours) and actively picks up the infrastructure and logistics information and combines them to a literature review. The primary data consist of the interviews that are used to gather information about the topic and give a more focused outline for the thesis topic. The secondary data, being the articles which form the basis. These two combined form focused and structured outcome. The data collection in this thesis is qualitative. The interviews are qualitative, meaning in a sense they confirm the information gathered. There is no quantitative data collection used.

The main data collection in the empirical data is interviews. The interviews form a structured collection, and they go well with the research aim for the thesis. It gives extensive and detailed information to support the literature review. It also can offer development for those who seek information.

The interviews are open end questions. The unstructured interview model is used because the information is extensive. In the interviews there are specific sections for

questions. These sections have themes where specific information is gathered. This is because broad answers give in-depth information. The answers from the interviews give, in the end, a direction to the conclusion of the thesis topic.

3.4 Analysis of data

The research problem was already decided before the writing of the thesis began. For this fact, in the research based thesis, the information was easier to collect and the literature review part formed with its sub-headings. The data for the research was easier to find, because the research problem was decided ahead of the writing.

The research questions were not studied with detail individually, rather they were answered throughout the literature review by giving broad and basic outline of the topic.

3.5 Scope and delimitation

The thesis focuses to the infrastructure and logistics side of the new Silk Road, and mostly it researches it from Russia's point of view. Although there are few countries taken into consideration from the development side. This is because Russia is not the only country developing and investing to the “One Belt, One Road” initiative. It is international and thus other counties' input is taken into consideration when conducting the research. In addition, politics are an important part in the initiative.

The main limiting factor in the thesis' literature review is that it is mostly studied and researched from Russia's side. This is due to the fact that otherwise the scope of the thesis topic would be too wide. It was the author's own decision to write the thesis from Russia's point of view to personal interest towards the country.

The other limiting factor is the geographical location of the initiative. Russia is the main player in the new Silk Road, thus limiting the selection of other counties participated. For this reason Russia, for the new Silk Road, was the most reasonable and suitable research subject.

Also the topic being and studying the infrastructure and logistics of the new Silk Road is limiting. In that sense, the literature review is easily gathered from various sources (mostly articles) and combined into a cohesive and well balanced ensemble.

The reason why the thesis topic is limited to only a certain part in the whole Silk Road initiative enables the author to form detailed questions. These questions are needed to the empirical data in the thesis.

4 RESULTS FROM EMPIRICAL DATA

4.1 Conduction of the interviews

The interviews were held on April – May 2017. The questions were open-end questions. The author asked questions of logistics and infrastructure matters in the new Silk Road. There were also few questions were Finland and its commitment to the new Silk Road were studied. The interview questions gave as broad as possible picture of the topic of the thesis. This gives a broad and vast understanding to the whole topic. The questions were based on the information from the theory part of the thesis. Finland's point of view was gained from the questions.

There are three interviews from three people. This was due to the fact the subject and project of new Silk Road is relatively unknown in Finland. It was relatively hard to find who to interview, and this narrowed down the scope of the interviews. But fortunately there are specialists in Finland who have heard of the project and were able to answer the questions. The people who participated to the interviews wanted to stay anonymous. The interviewed people work in North Karelia Chamber of Commerce, Cursor Oy and The Regional Council of Kymenlaakso. In the interviews, there were not special themes and the interview was not divided into themes. As a whole, the interview was constructed under the topic of the thesis title and the findings from the theory part. The interview questions are located in appendix.

The interviews were conducted after the methodology part of the thesis was finished. This was due to the fact that the thesis would progress logically, and there was no reason to conduct the interviews before the methodology part. The empirical part validated the findings of the theory.

4.2 Interview results

The answers of the questions from the three participants have been combined to give a thorough picture to the topic of the thesis and confirming the theory findings.

The new Silk Road in Russia, China, and Kazakhstan is very well known and a current matter. Russia is developing its own logistics infrastructure from own premises. China participates to the funding and financing. Russia has quite advanced logistical resources, for example in Kaluga. In Kaluga the moving of the containers to another rail gauge happens easily and quickly. In the last few years, Russian Federation has also taken concrete steps to promote Far East's economic and social development. The investment environment of the area and the betterment of the investment environment in the area, there have been several investment occurring, for example establishment of special economic zones. Russia is investing to the transport, communication transport, and energy infrastructure along the new Silk Road.

The other countries who have shown interest to the new Silk Road initiative can contribute by taxation and with investment support. Finland is also contributing to the new Silk Road by forming the Silk Road of Karelia. The Silk Road of Karelia has attracted a lot of interest in Northern Sweden and in Northern Norway. The media of Sweden and Norway are relatively informed about the new Silk Road and there have been some discussions also. The North Karelia Chamber of Commerce have been communicating with Sweden and Norway's counter parts and kept them up to date. With this joint communication, it enables more users on the route in the future. Also it is important to bring out own interests and strengths to the Chinese.

The collaboration needs to take political relations into consideration, because the effect is always in the background in cross-border joint projects. China has strong

interest to increase the trading with European countries. To Europe the land route goes through Russia. In that sense, it can be seen that China's interest is in balancing Russian- European relations. Meaning that, China's interest is not in the bad relations between Europe and Russia, rather in good relations. Global political swings will reflect the project, but at the level of everyday work, normal collaboration will continue as it is. However, the desire of all parties is to move forward and develop the collaboration. Due to the sanctions, Post-Ukraine sanctions have directed Russia more to the east.

The new Silk Road would be beneficial to Finland, in particular Karelian branch. Every transport and trading that will focus on Finland is beneficial to Finland's economy and employment. The new Silk Road and its routes are being developed in many directions and Finland must be involved in the development by providing a fast and reliable route between western Europe and China. The sea freight to China can take up to 6 – 8 weeks and even longer. This is because sea freight costs (price of oil) are being reduced by slowing ship speed. Train freight from Northern Karelia to North-West China lasts about 10 days and it brings savings as capital is released faster to the circulation. For now, train freight and transportation by train is about three times more expensive when compared to sea freight. When the cargo volumes are increasing the prices will decrease naturally.

The new Silk Road would have beneficial effect to Finland's business industry. Finland has many kinds of exports and imports to and from China. The rail link will be a major competitive factor that will shorten the delivery times and increase demand. The new Silk Road would bring more competitiveness and would create new businesses in Finland. For manufacturing industry the new Silk Road would offer alternate and fast routes to China and to Asia.

The new Silk Road would strengthen rail road logistics in Finland without major changes in logistics infrastructure. The rail link/connection would increase railway transport, thus contributing to the road traffic burden. There is hardly any need for changes in the main traffic route (although need to improvements) but connections with Sweden and Norway need to be developed. This is because Sweden and Norway are seen as a potential users of the route through Finland.

The new Silk Road has competitive advantages, and for Finland the most competitive advantage is a “short” journey and a shorter transport time compared to Central Europe. Container from Kouvola to Central China will have to travel approximately 10 – 12 days when a ship from Finland to China needs more than 30 days. This, of course, only applies to certain categories of products, as the ship will remain the most advantageous mode of transport and the volumes are multiple compared to the train. In comparison to the sea transport, train route offers fast transport to Asia/from Asia.

As for now it is difficult to predict whether the new Silk Road would be more cost efficient compared to the road transportation currently both in Finland and in Russia. It is difficult to estimate price levels, but financially it could offer some relief. This is strongly dependable on tariffs. Transport in Finland has, in some cases, been costly and expensive compared to long journeys to Russia and Kazakhstan. With the rail transportation racing competition, this is changing luckily.

From Finland's point of view rail traffic would be the most suitable due to its competitive advantage. This is because the same track gauge with Russia and Kazakhstan requires only one transshipment in the shipment of China at the Kazakhstan-China border. In addition, there is a need for cross-border loading between Poland and Belarus on the route of Central Europe. For Finland containerization/container transport would be the most suitable transportation mode.

For Finland, there is need for some additional constructions for the infrastructure, such as extending the container terminals. Also up to 800 – 1000 metres long trains need wide handling yards. In addition, Niirala requires x-ray equipments to containers. Also northern route trains need about 13 kilometres in addition to its electrification. There is a planning of work, at the Kouvola Rail-Road Terminal, currently in progress. There is required for 1100 metres long trains an increase axle loads and handling capacity. Also investing to ports is important and required.

The Karelian Silk Road project has been proceeding with good speed forward. The flow of goods has been estimated to be exported 1300 containers a year. Regular container train will increase the demand for freight transport. Finland and Russia's

customs are working together with the project and its fulfillment with their own actions towards it.

If Sweden and Norway want to join to the Karelian branch, the flow of goods are settled with those involved. The new Silk Road initiative has had positive reflect to Finland, and city of Tornio hope to have new logistics center.

Train transportation growth in Niirala (as a border crossing) has bright views towards the whole initiative. Stora Enso started in September 2015 container transports across Niirala to Russia, across Kazakhstan to Central China. In 2016, there were 18 container trains (with 80 wagons, all in all 160 containers). In the Karelian Silk Road conference, there were discussions that there is a need for businesses in Finland to export 1300 containers a year to China. And from China to the Scandinavian countries about 14000 containers imported. The new route offers good opportunities for expanding and streamlining business operations. There have been also negotiations with operators from Norther Finland and Sweden to link/connect trains to the region through Niirala to China. The Silk Road project has solid support from the Finnish and Russian customs leaders.

The development of the Far East can potentially have a growing effect to Russia's transit traffic volumes between Asia and Europe. This can have a reflection and an effect to Finland, and across Finland to other Nordic countries. North Karelia as a part of Finland, and Finland as a part of Europe, must be able to be part of a large and evolving Eurasian network of transport and infrastructure. For Finland, it is important to anticipate indirect impacts in the interlinked and increasingly network ready Eurasian continent.

5 SUMMARY AND CONCLUSIONS

To conclude this thesis, the aim was to increase information about projects in international extent, especially the new Silk Road project. The thesis will hold inside logistics and infrastructure issues in the new Silk Road and gives a platform to those interested. The thesis is mainly about Russia's own interest and development in the

logistics and infrastructure. The empirical part confirms the theory findings where interviews were held to gain more information. The empirical part also discusses where Finland stands in the new Silk Road and whether the new Silk Road would have foothold in Finland.

The empirical part and the information gathered were from three different sources. All three people participating to the interview were from different corporations, from North Karelia Chamber of Commerce, Cursor Oy and The Regional Council of Kymenlaakso.

The author of this thesis was surprised that the new Silk Road project was so international and even global. The scope of the Silk Road project was wider than though by the author, due to the fact that the author of this thesis had no previous information about the new Silk Road.

6 FINAL WORDS

The author ended up with this thesis topic from a visiting foreign lecturer from Poland. The lecturer talked about the new Silk Road and its international manner. It was interesting due to the fact that Russia is participating to the Silk Road project. This is because the author of this thesis is interested all things related to Russia and wants to gain as much as possible information.

This thesis helped the author to have an understanding of the new Silk Road project as a whole. Now the author has the basic knowledge of the subject and the development in it.

The construction of the thesis lasted about between 3 – 4 months. To this thesis, the author spent all her free time writing and conducting the thesis. The newest and the most current sources were sought and used to write the theory. When deciding the topic for the thesis, it was not problematic due to the author's own interest towards Russia and to the new Silk Road project.

Writing the thesis, it was no stress free experience but also it was not relatively difficult either. All the needed information was easily found in English and in

Russian from various sources. It took all the free hours from day to conduct the thesis but in the end it was educational and worth it.

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APPENDIX 1

1. How is Russia developing its infrastructure and logistics in the new Silk Road?/
Miten Venäjä kehittää omaa infrastruktuuria ja logistiikkaa uudessa Silkkitiessä?
2. How other countries who are interested in participating to the new Silk Road can contribute?/
Miten muuta maat, jotka ovat kiinnostuneita osallistumaan uuteen Silkkitiehen, voivat vaikuttaa?
3. How political relations affect the collaboration?/
Miten poliittiset suhteet vaikuttavat yhteistyöhön?
4. Would the new Silk Road be beneficial to Finland?/
Olisiko uusi Silkkitie hyödyllinen Suomelle?
5. How would the new Silk Road would affect Finland's business industry?/
Miten uusi Silkkitie vaikuttaisi Suomen elinkeinoelämään?
6. Would the new Silk Road change Finland's logistics infrastructure?/
Muuttaisiko uusi Silkkitie Suomen logistiikka infrastruktuuria?
7. Is there competitive advantages in the new Silk Road?/
Onko uudessa Silkkitiessä kilpailuetuja?
8. Would the new Silk Road be more cost efficient compared to the current situation in rail/road transportation both in Finland and in Russia?/
Olisiko uusi Silkkitie kustannustehokkaampi kun verrataan nykyistä tilannetta raide-/tiekuljetuksessa Suomessa ja Venäjällä?
9. What transportation modes would be the most suitable for the new Silk Road from Finland's point of view?/
Mitkä kuljetusmuodot olisivat sopivat uudelle Silkkitielle Suomen kannalta katsottuna?

10. Is there need for additional infrastructural construction in Finland? / Onko tarvetta infrastruktuurin rakentamiselle?