



# **Advantages and disadvantages of international contract manufacturing**

The opportunities for Finnish companies in Russia



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<p><b>Abstract</b></p> <p>The thesis is aimed at helping business structures in Finland to find out better ways for producing goods. The research was executed for Finnish companies' interested in doing business in Russia (with Russia), for companies which are looking for suitable conditions to produce goods. The research problem is defining the advantages, disadvantages and opportunities for Finnish companies to perform toll manufacturing in Russia. The features of toll manufacturing agreement and implementation in Russia as well as impact of contract manufacturing on countries are discussed.</p> <p>The qualitative method of research was chosen as the most appropriate. The theoretical framework for the thesis covers the questions of contract manufacturing practice in general, and toll manufacturing in particular, their advantages and disadvantages, especially for Finnish companies in Russia, the regulation of toll manufacturing in Russia, Finnish-Russian economic relations. The empirical part is based on the case study method, the cooperation in toll manufacturing between Finnish concern PKC Group Oyj and Russian AEK Ltd was researched. The data was collected through interviews with companies' representatives, observations and reports on activities, statistical information.</p> <p>An undeniable advantage is the geographical proximity of countries in addition to perfect logistic itineraries between Russia and Finland and transport corridors both in Russia and Finland. However, Russian customs rules and rough roads may put companies at a disadvantage.</p> <p>Russia and Finland have comparatively similar cultures, a long history of intercommunication between neighbouring countries, stable economic relation, existing experience of other Finnish companies which present on the Russian market – all these factors can make working in Russia easier.</p> <p>Ordering customers may find better managerial solutions for optimising business, reducing costs, increasing profits, expand markets, and, if domestic sources remain more expensive than foreign, the Russian market is opened for them. Russian monotowns or special economic zones in Russia would be perfect places where to start. Placing orders, the hiring firms contribute to processing economy (increase in GDP, taxes, etc.), provide employment (especially women and youth). At the same time, they contribute to the economy of their residence, because the taxes from their earnings are usually paid at place of the company's residence or main activity.</p> <p>There are only a few companies from Finland practising toll manufacturing in Russia, so it is difficult to evaluate performance and outcome yet. At the same time, there are some localized production in Russia, but finished products are aimed at Russian market.</p> <p>Russia is looking for reduction of technological gap in the production of high-tech products in the electronic sector and creation of serial production. There is also a need to utilize idle capacities in existing Russian industries. Companies can have advantages of the untapped Russian market potential especially in case if production and further distribution will be targeted for consumption within Russia or in CIS countries. There will be demand for world class products on the Russian unsaturated market, especially if disposable income grows. It might be to Finnish companies advantage to locate close to customers. A combination of different methods of operations may also be considerable advantage.</p>			
<p><b>Keywords</b></p> <p>Outsourcing, Contract manufacturing, Toll manufacturing, Low-wage economy, Cooperation between Russia and Finland</p>			

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## INTRODUCTION

International cooperation allows us to expand our markets for both goods and services. From the late 1800s to early 1900s, accelerated world migration and enhanced communication technologies facilitated unprecedented growth in international trade and investment. Reduction of transportation and communication costs and their improvements were a key part of the growth. One of the most important phenomenon of the 20th century has been the international expansion of industry. (Waters, D. 2009, 52.)

My interest in international contract manufacturing arose during my studies and previous work experience. My plan for the future is work in the sphere of international business, I am especially interested in Russian-Finnish economic relations, taking into consideration growing interest to Russian market and good economic cooperation between Finland and Russia. I would like to discover the main drivers for companies to move business and industries around the world.

The thesis is aimed at helping business structures in Finland to find out better ways for producing goods. The research was executed for Finnish companies interested in doing business in Russia (with Russia), for companies which are looking for suitable conditions to produce goods. The research problem is defining the advantages, disadvantages and opportunities for Finnish companies for contract manufacturing, and toll manufacturing in particular, in Russia and finding out the best schemes to arrange it in Russia. The research objectives to ascertain existing conditions and experience of practising contract manufacturing and toll manufacturing in Russia, advantages, disadvantages, the features of toll manufacturing agreement and implementation in Russia as well as Russian economic environment and lines of Russian-Finnish economic cooperation. These questions are discussed.

The qualitative method of research was chosen as the most appropriate for this thesis. The research obtained data using observations, interviews, statistical information, text from books, magazines and Internet resources. The research will focus upon an existing practice and determining advantages, disadvantages and opportunities. It will identify situation-specific development and recommendations. The results of research will be applied in business activities. The theoretical framework for the thesis covers the questions of contract manufacturing practice in general, and toll manufacturing in particular, their advantages and disadvantages, especially for Finnish companies in Russia, regulation of toll manufacturing in Russia. The material was gathered from books, magazines, statistical information, Internet resources and interviews. The empirical part is based on the case

study method. The cooperation in toll manufacturing between Finnish concern PKC Group and Russian AEK Ltd was researched. The data was collected through interviews with companies' representatives, observations and reports on activities, statistical information. The outcome of that cooperation was described regarding to research objectives.

### 1.1 Toll manufacturing scheme

There is a wide variety of application schemes of outsourcing and contract manufacturing. One of the variations of contract manufacturing is toll manufacturing, or toll processing. They are two relatively similar forms of supply chain management. Both of these manufacturing options involve outsourcing production processes to a third-party company. In toll manufacturing, however, the ordering customer is sourcing or providing all of the raw materials. (Sierra Coating Technologies LLC.) In English such materials are called "part provided", "toll material", "give and take material", "customer owned raw materials", "customer-furnished raw materials", "materials supplied by customers" (Multitran.ru; Osakwe, Ch. 2008, 559)

In this case the ordering customers have title to the raw materials, components and processed products as well. The finished goods are returned to that customer without any change of ownership taking place. The customers for such services may be entirely separate companies or companies within the corporate group. Ordering customers control the cost of raw materials provided, they are responsible for supplying the correct components to the toll manufacturer in a timely manner. Goods for processing in international tolling differs from operations when goods sent abroad for processing and sold to the processing economy or to another economy (but not to original economy) (Statistics Department International Monetary Fund. 2004)

In toll manufacturing, one company, the ordering customer, provides raw materials (or semi-finished goods) to a third-party – toll manufacturer (processor), who will then provide facility, particular equipment and organizational models for processing its raw materials or semi-finished products for a fee – or toll. Processor does not distribute and does not market finished products. Applying this method, the ordering customer only has a variable cost of manufacturing without the financial investment in equipment, facilities, and employees. With toll manufacturing, the ordering customers may develop their own exact product they foresee, without the time and capital investment to create an in-house production operation. (Sierra Coating Technologies LLC.)

Similar to toll manufacturing, contract manufacturing has an ability to provide customers with ways to save both time and capital - it is their most strategic advantage. This offers the customers a fast and effective method to complete their products with minimal investment and a made-to-order supply program. Both involve creating a supply chain vendor for a branded, private label or custom-made product. The manufacturers are responsible for making the product with exacting adherence to customer specifications and meeting the delivery time requirements. Products that are normally unique, custom engineered, made exclusively by the manufacturer for the contracting firm and are branded as such. The high quality level is also achieved through strict adherence to industry standards and the certification of production processes.

Term "toll" in business environment means a fee for using any kind of material processing service. A long time ago "toll" was a portion of grain taken by a miller as a compensation for grinding. (Your Dictionary online) In those days the miller was a mechanic, but not a trader. His charges, the profits of his business, arose from the mechanical work performed by himself or under his supervision. For centuries the cost of the flour could be divided into two general factors: the price of the wheat and the charges of the miller for his services, which included the aid of the mill wright, interest on investment, the expenditures for repairs, improvements, insurance, and taxes. These additional elements were less in value than the wages of the manual labour which was used erstwhile, so the price of flour was lessened by introduction of improved machinery. The cash or wheat toll was based upon the laws or custom of an earlier time, before the sale of flour by distributors. For example, the general law of A. D. 1300 for the regulation of toll in England. The early settlers in America were guided in their legislation by the principles of this old law. (The Miller's Compensation for Making Flour. 2009)

Toll processing, or toll manufacturing, custom manufacturing, tolling, toll conversion is common practice now in the world and likely to become more prevalent at the present time, especially within multinational companies. This method is used within industries such as pharmaceuticals, chemicals, metals (rolling, galvanising etc), aerospace, automotive and computer and semiconductor manufacturing (Statistics Department, International Monetary Fund. 2004)



## 1.2 History of international subcontracting

Subcontracting as a new type of an international cooperation got a start during the time when a question arose all over the world on a difference in manufacturing expenditures depending on labour costs in various countries. The question was associated with a pressure of an international competition. On this basis, the choice of a place for manufacture gained much importance. Thus, the labour cost is high in the USA, so it is not a surprise that this country was the first to understand the necessity to locate processing of raw material orders in those countries where such costs were lower. Other industrial countries followed the USA. In Federative Republic of Germany the placing orders for processing became active in the early 70s, after the significant increase in salaries level. Enterprises of the FRG used widely subcontracting in Portugal, Greece, Morocco, Tunis, Hong Kong, China. (Belova, I. 2000).

In 80-ties of the last century, the practice of international subcontracting was expanded due to opening of new world markets and the development of international economic relations in the period of a raise of world economy in North and Central America, Western Europe, East Asia. One of the contributed factors was a creation of a cheap international transport capacity. With the technological advances in communications subcontracting became even more accessible.

The reasons for a new wave of subcontracting widening in the early 90's was the opening of borders with the Eastern Europe, the economic expansion in South-East Asia, the foundation of the free trade agreement NAFTA, and also great increase in salaries and wages in highly industrialized countries. The political and economic reforms in countries of Eastern Europe led to the growth of contract manufacturing on their territories. Some companies relocated a big part of orders from Asia and EU countries to East Europe. Thus, the total exports of textiles and clothing was grown significantly in the Czech Republic, Slovakia, Hungary and Poland. (Welch L.S. at al. 2007, 169.) The East Europe countries were top-ranked as key players in global sourcing by 2008 together with India, China, Thailand, Brazil, Argentina, Costa Rica, Egypt, Tunisia, UAE and some others. Russia and CIS countries are among up-and-comers or emerging local providers. (Cavusgil, S., et. al. 2012, 497)

To date, almost all the major manufacturers of high-tech equipment in the world do not make their products fully in technical sense. Such firms as Cisco, HP, Dell, General Electric prefer not to have own production, but outsource and invest in original design

manufacturing and contract manufacturing. Nevertheless, their products are top sellers due to building a strong brand, focusing on development and sales arrangement. Companies, working in the other field, such as Nike and Reebok, no longer undertake any manufacturing on their own part as well. (Rusnak, A.; Welch, L, et. al. 2007, 181)

#### History of toll manufacturing in Russia

Toll manufacturing was implemented on the domestic market in the economic transactions in industries of the former USSR. This can be shown at example of the textile industry association that included cotton storehouses, spinning and weaving, and finishing plants. Wherein, raw materials suppliers paid manufacturers only for the actual work. (Belova, I. 2000).

In the late 90's enterprises began to experience a shortage of raw materials. It was mainly caused by the destruction of the vertically integrated manufacturing chains and the interruption of old structural bonds between the former USSR republics. This resulted in the lack of adequate capacity utilization and a decline in production. The companies were forced to make their first steps to independent activities. Perhaps, this situation most clearly appeared in the consumer goods industry, which became a pioneer in the use of the tolling schemes in the manufacture of wearing apparel. Russian sugar factories were also among pioneers of applying tolling schemes. (Belova, I. 2000).

Toll manufacturing was widely spread also in grain farming. Russia had excess capacity for the processing of cereal crops, but at the same time, underdeveloped agriculture led to the problem of forming the raw material base. Enterprises had shortage of working capital to create a reserve at the moment when the grain will be the most in-demand by customers (autumn). In addition, for the formation of large stocks of grain the enterprise must have developed storage system, which requires maintenance, so costs for grain storage was increasing, which led to increase in production costs and making product less competitive. These factors forced managers of grain processing enterprises to apply toll manufacturing deals. (Bogomolova, I. & Chochlov, E. 2006)

With the lapse of time both modes have spread - processing Russian raw materials abroad (outward processing) and foreign raw materials on the territory of Russia (inward processing). The term «tolling» («толлинг», in Russian) was often used by Russian media, though such international economic operation was officially named "processing of foreign raw materials" («переработка иностранного давальческого сырья», in Russian). In Finnish language it can be determined as "Tavaroiden jalostaminen ulkomailla". (Hatakka,

T. 2012) Active circulation of the term "tolling" in Russia was mainly due to the wide practice of this operation in the Russian aluminum industry.

An international tolling in metallurgy was first applied in 90's in aluminium production: alumina and bauxite were imported from abroad and were processed at Russian plants with further export of finished aluminium abroad. The Bratsk aluminium smelter was the first to apply such a deal in cooperation with the Trans-CIS Commodities - offshore company registered in Monaco. (Kurakov, L. & Kurakov, V. 2004). As a result of breakdown of supply chains after the collapse of the USSR the aluminum plants lost the sources of raw materials and were provided with its own raw materials by only 35-40%. At the same time the precipitous decline in demand for the metal began in domestic market due to the reduction of military orders, lower production volumes in civil engineering. The economic crisis of the early 90s could be a disaster for the aluminum complex; it was hard time for all Russian industry as well. The reduction in domestic demand was offset by growth in aluminum exports from Russia on the tolling basis. Russia became a big exporter of aluminum - its market share amounted to almost 13% in 1995. (Golovina, A. & Razletovskaja, E. 2000.)

To a certain extent tolling helped the aluminum industry to recover: the share of tolling in the total volume of primary aluminum production increased from 43.9 up to 89.4% during 1997-1999. Refineries did not own raw materials and did not pay import duties and taxes due to the tax benefits and benefits in the custom clearance procedure. Further savings were achieved due to the reduced rate for electricity. Ordering customers received high profits due to the high price on the finished aluminum and low-cost processing of raw materials in Russia. The drawback for Russian plants was that they could not set sales prices for the product and share the main part of the profit. (Public fund on perspective research "Bastion", 2001) At present the biggest aluminium companies entirely independent of the imports of raw materials, that meets the strategic interests of the country. For example, the Timan mine develops a rich deposit of bauxites in Russia. (Rusal. 2014.)

In the mean time, toll manufacturing is used in other sectors of Russian metallurgy: in gold and silver refining, manufacturing of copper, nickel and cobalt. International tolling are also used in the Russian consumer goods industry (for example, textile, fabric, garment accessories are brought to Russia for cutout, sewing, trimming), aviation industry, chemical, pharmaceutical industries, electronics industries, agriculture (for example, in the production of compound animal feedstuff), food industry (sugar cane for sugar production and other). Sea-crafts, different equipment, machinery, aircraft engines are brought to

Russia for maintenance or repair job. Partner countries are Germany, EU Baltic countries and others. (Legal base Consultant Plus (a).) Even so, the implementation of international tolling schemes is rather moderate now in Russia. The customs policy and formalities are too strict and complex, undeveloped economy also has impact.

It is not easy to find existing Finnish companies using toll manufacturing in Russia at present. According to Finnish-Russian Chamber of Commerce, the practice of toll processing when finished products are brought back from Russia to European countries, is not popular idea among Finnish companies at all. Despite low labour costs in Russia, there could be such problems as quality control difficulties and risk for potential loss of technology. Generally infrastructure is not always good enough. The interest from Finnish companies is minimal. They also have prejudices of Russian quality, logistics etc. However, there are some localized production in Russia, but finished products are aimed at the Russian market. Tarmo Suomalainen, Finnish-Russian Chamber of Commerce, mentioned that until lately it has been cheaper to produce in places like China and India. Only recently, after a strong devaluation of rouble against euro and dollar Russian manufacturing became competitive. Presumably this still is a new idea. He believes that ideal places for toll processing would be industrial parks close to Finnish-Russian border such as Vyborg area, Karelia etc. (Suomalainen, T. 2016).

## ECONOMIC BASIS OF TOLL MANUFACTURING

There are valid reasons for a firm to take a decision to enter into a contract relationship with a toll manufacturer instead of building an in-house production operation to produce their own finished goods or purchasing.

### 2.1 Advantages of toll manufacturing for customers

For an ordering customers advantages may include the following reasons.

- a) To reduce production costs due to manufacturing in countries with low labour cost. The production cost can be also lowered by using a toll manufacturer with a very modern, efficient production operation. Growing international competition forces companies to apply all possibilities and price advantages offered by processors.
- b) To compensate for lack of production capacities, technical capability or effective technologies on the customer's existing facilities or in the country; or lack of funds for the purchase.
- c) To avoid the capital investment for equipment, facilities, personnel and training required to build an effective manufacturing operation. Small capital risk.
- d) To avoid maintaining a processing establishment, there are no equipment-related maintenance expenses.
- e) Whereas the build an own manufacturing operation is eliminated, the time required to get the new product to market decreases significantly.
- f) To take advantage of a toll manufacturer's superior knowledge and experience base, especially if an article is difficult to produce/extrude/fabricate/ properly.
- g) Keeping special know-how in country of origin in case if ordering customer has its own know-how.
- h) To maintain and maximize brand exclusivity by controlling all phases of product manufacturing, setting up own quality requirements, instead of private labelling an existing product.

i) To approach the target market and find an appropriate location when production should be near company's clients, especially in food industry, but not only.

For example, Flextronics International Ltd launched a new production plant in Ukraine in 2012. The reason for that was the strategic orientation to Europe and Russia. The new plant has the most advanced equipment; it produces consumer electronics, medical, television, media equipment and more. (UA-reporter.com.) Flextronics International Ltd. – company from Singapore, a huge contract manufacturer of electronics with facilities in many countries, it has client companies such as Microsoft, Alcatel, Siemens. (Flextronics International Ltd.)

j) Possibility to utilise local factors of production.

k) To guarantee confidentiality. Toll manufacturing arrangements are often confidential, in that the customer does not want to reveal the actual manufacturer of the article to his own end-customers. (Global Business Briefing. 2008).

l) To avoid obtaining additional permits: safety regulations, certification are already in manufacturer's place.

m) No need extra floor space at own site.

n) Quick turnaround and predictable costs.

o) Motive to move "dirty" production to third countries; motive to save on environmental payments and environmental control costs;

p) Possibility to evade trade barriers.

q) Economies of scale.

r) Expansion of activities while implementing foreign investments, opening of new foreign markets.

s) Toll manufacturing arrangements allow companies to move goods around without transfer of legal ownership.

## 2.2 Advantages of toll manufacturing for processing companies

The economic reasons for manufacturers include the following:

- a) Utilization of production capacity; making bigger profits by downloading idle capacity.
- b) Lack of working capital for the independent acquisition of raw materials; debts and unavailability of credit aid.
- c) Inaccessibility or limited access to the market of raw materials, special requirements to it, which can only be provided by ordering customer.
- d) Avoidance of the risk of holding stocks. Under toll processing the stocks (of semi-processed goods) remain with the customer.
- e) Reduction and control of working expenses.
- f) The need of preservation of jobs or increase in jobs at processing plants.
- g) Since there is no change of ownership of goods for processing, taxes are not paid from this materials by processors. Scrap, faulty goods, remains, even some wastes are usually sent back to the ordering customer, the processor does not face with the problem of its storage, disposal, recycling or other treatment. At the same time processor must safeguard the raw materials and final products. He is liable for neglect of customer's materials and own omissions.
- h) As a rule, the toll agreement may last several years. The manufacturer will know that it will have a steady flow of business until then and estimate profit.
- i) No activity and expenditures on procurement of raw materials/components and sales, finding marketing outlets, no marketing for finished goods, no market research (if does not have other business operations). For example, in case if retailers order some products, they determine designs and styles which match the needs, preferences and trends of the retailer's target market. If the retailers run the marketing process, manufacturers may not necessarily understand market situation and consider required product adaptations. (Welch L.S. at al. 2007, 175.)

### 2.3 Disadvantages of toll manufacturing for processing companies

The model of contract manufacturing and toll manufacturing, in particular, is beneficial for both the customer and the manufacturer at many points, however there are also disadvantages.

In case if manufacturer specialises on production only for the other companies within tolling agreements, totally without own end products, it causes increasing dependence of the business operation on the order givers. It makes the enterprise vulnerable, does not allow to make much demands and to propose terms of contracts for processing. Additionally, unsteady supply of raw materials may increase production costs, for instance, in a part of terms of pre-commissioning costs. The worst case scenario if permit is not renewed by customs bodies, the idle period may occur.

In order to comply with customs regulation there is a need of security of payment of customs duties, taxes, usually in form of bank guaranty or depositing, like in Russia. It means that money is taken from business circulation and remain at authorities' accounts until exporting of goods. In case of bank guaranty, there is a need to pay charges to the bank.

Processing companies may not have activities and expenditures on procurement of raw materials and sales, marketing, on the other hand it can be considered as downside. Thus, the companies are not full-fledged market participants, they are not able to influence the size of the offer and product range. The lost opportunity of using market instruments to improve profitability and level of yield is one of the most significant negative sides. Manufacturers cannot be an active participant in the market without ownership of goods. They cannot create own stable sales policy. (Bogomolova, I. & Chochlov, E. 2006)

The companies are not engaged in the building and promotion of their own brand, but provide the image of a stable and competitive firm, losing opportunity to gain power at market. Kapferer (2008, 12-13) considers that a brand is an idea embodied in product, services, places and/or experiences. The product or service, along with the people at points of contact with the market, the price, the places and the communication, give a chance for a brand name to affect the market. Therefore, brand management means winning power through making the brand concept more known, more bought, more shared.

Thus, Nike and Reebok do not have any manufacturing on their own part, but invest in marketing, design, research and development and distribution, which makes difficult to for subcontractors to become a competitor. (Welch, L., et. al. 2007, 192)



## 2.4 Disadvantages of toll manufacturing for the customers

When deciding about contract manufacturing, the company should weigh the benefits and associated risks, because production outside of the company does come with many risks attached. Language barriers, cultural differences and need to establish relations with the authorities, sometimes overcome protectionist measures, understand legislation and business practice, especially if work starts from the ground up in a new country. For instance, when Finnish concern PKC Group opened subsidiary in Brazil in late 90-ties, it took much time to adjust to new realities such as differences between European and South American cultures. The biggest problems were in understanding of local customs policy and protectionism concerning import. (Kulju, M. & «PKC Group». 2004, 186).

Ordering customers face organizational, coordination and supply-chain questions. Finding a good partner can be difficult. Time and resources when trying to find partner can be underestimated. Different bases, objectives and expectations of partners may cause problems. There is also a risk that processor develops as competitor for its customer or reach too dominating position. There are many companies specialising on consulting on outsourcing in general and toll manufacturing in particular for their assistance in the world. They can also provide information about processing a specific type of material. (Custom Milling&Consulting Inc, li and Fung, The Outsourcing Institute etc.)

When looking for a partner and facilities, the customers may face such problems as lagging technology, outdated equipment, no upgrading or modernization in the given industry or low labour productivity in country of processing. There are not many well suited and acceptable processing plants and facilities in Russia and in other developing countries. Quality control could be more difficult if processing company is independent. Survey of the use of outsourcing reveals the importance of control measures, loosing of operational control was mentioned as a major issue at outsourcing relations. (Daniels, J., et. al. 2009, 710)

The placement of its own production in developing countries can be done through the creation of subsidiary processing plant and its development. If company buys out already functioning foreign company, it will give the best possibility to control production and markets, possibility to react quickly to changing market circumstances, to generate highest potential profits. Establishing a production unit usually is more popular among governments than exports. On the other hand, it is the most requiring and time spending form of operation. It will require more resources, high costs and higher risks, especially country risk caused by developments in national political and legal environments.

Authorities can impose constraints on corporate operating methods in production, marketing and distribution areas. Governments may impose embargoes that restrict trade with certain countries. However, non-tariff measures, which have the effect of restricting trade between nations, are not applied to goods for processing, as a rule. (Union Customs Code, article 256; Customs Code of the Customs Union, article 239) War, revolution, terrorism may have serious consequences for international firm. Preferences and guarantees for foreign investors are fixed by the Federal law on foreign investments in the Russian Federation, dated 09 July, 1999 № 160-FZ (as of 5 May 2014).

Specific country risk regarding to Russia, is regulatory, legal, and corporate governance environments remain weak. Ambiguous regulations and laws together with unpredictable enforcement may complicate local operations. Bureaucracy burdens business and impedes the development of a more diverse and competitive economy. (Doing business with Russia. 2005, 56, 58) Russia ranks high among countries with corruption; paying bribes is wide spread practice. Counterfeiting and crimes is also a problem. (Cavusgil, S., et. al. 2012, 209-210)

As it was seen from the history overlook, the companies were driven by low production cost. However, the cost cannot be considered as a key factor and it is not always constant, it may vary. Cost may arise in case if partner does not have required knowledge, and there is need of training and, possibly, equipment at the expense of the customer. The price for inaccuracy in assembly process of manual insertion of singular components is great. These weaknesses will not always be noticeable prior to the establishment of the contractual relationship, as well as low productivity. (Welch L.S. at al. 2007, 185).

Any outsourcing scheme leads to distinct transaction cost for facilitating the strategy - searching, contracting, evaluation, controlling, transportation and logistics. That may exceed the transaction cost of having the activity directly under management's in-house control. (Welch L.S. at al. 2007. 187). Managers have to balance operating and logistics costs. For example, handling of reverse logistics by hiring companies should be also included into cost. Some materials have to be collected and brought back for recycling or for safe disposal, such as dangerous chemicals. (Waters, D. 2009, 20)

Transportation connections, distance and timely delivery play important role in choosing processing location. Not every company has ability to deliver from plant nearby, and timely delivery becomes curtail. For example, Nokia's subcontractors were unable to shorten delivery times when rapid growth was in market demand for its mobile phones in 90s. It caused Nokia problems in respecting its exports commitments. (Welch L.S. at al. 2007,

173, 185). Interruptions in the supply line can cause havoc if company uses JIT or lean manufacturing. Many products are still cannot be subcontracted because of high transport cost per unit of value of the product.

Long lead times may give risk of poor performance, more complex chains, uncontrollable costs, unsatisfactory working relationships and make the management of subcontracting more difficult. Shift in consumers' demand also matters. Some customers prefer to buy goods which produced domestically, or were produced in the West, without unethical practices, for instance. Demand sometimes forcing companies to return back home. For all that reasons firms from USA and European countries have started recently to move away from Asia.

Thus, the mass relocation of Finnish companies to China is coming to the end, the Finnish channel "Yle" informed last year. Loosing economic interest in production in China currently is caused by the long delivery times combined with their unreliability, costs for transportation, poor availability of electric utility, corruption and cultural differences. China attracted companies by low labour cost, cheap components and a huge sales market. Wages in China have increased, but the quality cannot be guaranteed at all times. Some firms are falling victims of information leaks wherefore suffer to sustain losses. Inflexibility of production in Asia is a big problem for companies. For example, it was needed to inform Taiwanese partners about the future colour of Jopo bike in a period of a few months prior, and it was not always possible to change it. In Finland, the color can be changed faster and easier. (Yle Uutiset. 2015)

During recent years, many of those Finish companies which had production in China, have begun returning back to Finland: "Valtavallo" (LED lamp production), "Helkama" (bicycles production), "Karhu" (sportswear, footwear and sports equipment manufacturing), "Turun Sinappi" (mustard production), "Biolan" (environmental products), "Elcoflex" (electromechanical components production) and others. (Yle Uutiset. 2015)

Looking for better business opportunities, companies should consider many factors and risks. Cost reduction and increase in revenues may be achieved rather by effective supply chain management in a whole, as most companies presume. (Daniels, J., et. al. 2009, 698, 694)

## 2.5 The influence of international contract manufacturing on advanced countries

If retailers or other marketers use foreign subcontractors it means that they are not using local manufacturers. Capital that is invested abroad creates new jobs in the country of manufacturing and not in the investor's country. The impact appears in a change of industry structure and employment, creating pressure on domestic manufacturers. As a respond the latter may start lobbying activity with government representatives to restrict the inflow of subcontracted products. (Welch L.S. at al. 2007, 175) Thus, clothing industry has been heavily protected both through tariffs and through import quotas in the USA. Apparel production is labour-intensive, technology is relatively simple, for which reasons high-wages economies have a strong comparative disadvantage. (Krugman, P., et. al. 2006, 222)

Other reaction may be seen in changes in production system. In order to reduce cost and become more price-competitive with imports, manufacturers extend automated process and use robots, apply innovations. Wages comprise the minor part of overall costs in automated process, they may reach only 2%. It turns to be useless to outsource in remote places with low labour cost and move away from main markets. (Waters, D. 2009, 200)

Thus, Finland promotes itself as a good destination for manufacturing, willing to attract customers. Finland announces that "...the manufacturing sector is creating opportunities in a diversity of industries and high-tech ecosystems, for often surprising reason." (Finpro ry) The reasons are productivity, which is 4,5 times higher than in the low-cost country. This also influences the time factor. Developed and diverse range of industries, from metal to digital, networking may give advantage to customers. Finland located close to top players in their business sector. Finns have know-how, hard-working engineers and are able to fulfil the entire process, from initial design to product commercialization. Goods are tested and put under trial manufacturing in cooperation with research institutes and other expert companies. Finland considers that labour in manufacturing should be viewed in qualitative perspective: professional integrity, dedication to learning and a positive work ethic are everyday values in Finland. Among other things, Finland is second most transparent country in the world. (Finpro ry)

One more option for local manufacturers is developing their own foreign sources of supply, thereby further contributing to the growth of international subcontracting. (Welch L.S. at al. 2007, 176)

## 2.6 The impact of international contract manufacturing on low wages economies

While choosing a place for processing the customers conduct a comparative analysis of a wage level and processing conditions in these countries. In turn, developing countries create a favourable environment for attracting foreign investors. Contract manufacturing contributes to processing economy by increase in GDP, by tax payments. At the same time, the hiring firms contribute to economy of their residence, because the taxes from their profit usually are paid at place of company's residence or main activity.

### 2.6.1 Employment, and download the idle production capacities

Subcontracting has a positive impact on countries with low labour cost mainly in the field of employment and download idle production capacity. As soon subcontracting creates work places, it induces developing countries to create special conditions for attracting foreign customers for processing.

For example, the official unemployment rate in Russia was 5,2 % of all economically active population, but it can vary from 6 % to 10 % in some federal districts (September 2015). (Federal State Statistics Service. 2015(a)) The largest number of unemployed in Russia – the young people. The unemployment rate among young people aged 15-24 was 15.1% in 2015. The prevailing job opportunities for them - engineering and technical positions, blue-collar jobs and IT. One of the objectives of Russian "Strategy-2020" is creation of new modern workplaces. "We expect that investments, including foreign ones, will lead to the creation of new modern jobs, well-paid, with good technology," - says Mr.Korovkin, Russian Academy of Sciences, member of the expert group of "Strategy-2020". (Strategy 2020)

Surveys show that through the help of subcontracting the new workplaces are created in countries with the unskilled young women with insufficient qualification who can work efficiently. This group is preferred by reason of relatively great willingness to work, high productivity if performing simple operations, relatively high work discipline, limited mobility and low wage requests. (Belova, I. 2000.)

Creation of workplaces for women could contribute to the protection against discrimination based on sex and age. Despite the fact that women now make up a large part of the population of Russia, employment of women, their work positions, work conditions and wages are significantly worse and lower comparing to men. There are no systematic countermeasures against women discrimination in Russia (Sokol, Y.) At the same time, any

discrimination in employment is unlawful: the Labour Code of the Russian Federation contains respective provisions in articles 2, 3, 132. However, a significant part of Russians perceive discrimination as a norm. Gender stereotypes are strong in relation to the representatives of various professions. Age discrimination is also wide spread: the labour market is actually closed for those people, who has 5 or even 15 years left before retirement. (RIA Novosti. 2013)

The shady employment is also a problem in Russia. 15 million people, or 20% of the economically active population, have cash-in-hand jobs, hidden wages and working without lawful employment currently. This phenomenon is the consequence of the backwardness of many branches of economy and reduction of the small enterprises. (Bashkatova, A. 2015; RBK, 2015.) Unregistered employment relationship very often appears at the initiative of an employer, an employee accepts because there is no other alternative. Women less often than men agree to work without a contract because the legal employment allows them to receive social benefits and paid maternity leave. There are no control over working conditions, control of the quality of produced goods and services in the informal sector. (Kutaev, Ш. 2007; Newsru.com. 2014.)

Bringing in and boosting the modern processing production works, where would be possible to find employment for unskilled applicants or with elementary vocational education, but with availability of on-the-job training, for women and youth will have a positive impact on the situation of unemployment and its structure. Companies with ethical behaviour or their subsidiaries will make contribution to protection from labour discrimination and shady employment.

The more processing companies and ordering customers seek for increase in volume of output, the more GDP grows, as well as the tax base in the region. Contract manufacturing can be build up rapidly and affect the recipient economy. For example, Poland's exports of textiles and clothing was increased significantly, stimulated by the growth of subcontracting in 90ties. (Welch L.S. at al. 2007, 169) However, it can mean much dependence from foreign companies and from advanced economies.

## 2.6.2 Integration into a country of processing

Direct investments into to the country of manufacturing can be realized through establishing there an own enterprise, a plant for processing. Quite often this leads to an application of new technologies and modernization which positively influence economic development of the nation. Thus, manufactor can start producing similar goods according to a new technology that can be further supplied to the domestic market of the country. Experience of the Eastern European countries shows that the implementation of contract manufacturing practice often leads to the development of national industry sectors, which able to produce raw materials. (Belova, I. 2000.) Contract manufacturing may also open markets in advanced countries for the other goods of processor. This is a good opportunity for toll manufacturers to overcome disadvantage of not being a full-fledged market participants and start using marketing instruments and build own brand.

The inflow of foreign capital or placing orders for production creates and boosts production sites that can contribute to general industrialization of a country.

As an example of integration and industrialisation of country of processing we can put case of Finnish concern Elcoteq Network Oy<sup>1</sup>, - the electronics contract manufacturer and electronic manufacturing services provider. It was one of the market leaders who established series production enterprise in Russia, its subsidiary. Elcoteq Network Oy started toll manufacturing in Russia in 1997. The plant for assembly of electronic circuit boards and cables for telephone stations was the most advanced, high technology in Saint-Petersburg at the moment of launching. Elcoteq had been producing goods exclusively to foreign markets under the customs procedure of inward processing until 2001; the subsidiary company did not pay customs duties and taxes. Components were supplied from Finland, all the end products were exported. Elcoteq had over 40 clients including Husqvarna, Ericsson, Nokia, Philips. Later the company offered its world-class services to Russian firms and designers on Russian market. Elcoteq bought land and erected a plant in Saint-Petersburg in 2005. The total area of the plant amounted to 15.5 thous. m2. (REGNUM. 2005; Citywalls. 2013; Rusnak, A.)

However, in order to optimize its business Elcoteq decided to sell the Russian manufacturing facilities. The plant (subsidiary) was sold to the Russian company Optogan in 2010. The plant was completely ready to commencement of operation. This acquisition allowed Optogan to accelerate project to produce solid-state light sources and full range of

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<sup>1</sup> The company ceased to exist in 2011.

LED products in Russia. The deal was extremely attractive for Optogan, as the quality of the production site and its infrastructure met the highest international standards of electronics production. Elcoteq has invested more than € 30 million in the construction of industrial buildings and infrastructure, which included: automatic climate control systems, compressed air systems, industrial gases, vacuum; integrated power systems; computer network; automated storage systems for particularly sensitive components and more. (CNews. 2010)

The Finnish company, initially aimed at foreign market, further developed the plant and production for Russian market, contributing to Russian economy. The plant, which was built by foreign investor, with appliance of modern technology, had become an exceptional base for starting Russian industry branch development, facilitated the launch of production of original Russian product. Purchasing an existing complex gave advantage to the Russian company. Optogan did not invest time in design and development of new plant and technology, but was able to start production for the Russian market instantly. It would not be easy to find existing complex of such level in Russia without previous input of Elcoteq Network Oy.



## DOING BUSINESS IN RUSSIA

### 3.1 Characteristics of the Russian industry

Currently Russian industry consists of mining and extractive industries producing coal, oil, gas, chemicals, and metals; weapons and military machinery manufacture; aircraft building, aerospace production; electric power generating and transmitting equipment; shipbuilding; electric engineering, pulp-and-paper production, automotive industry, transport, road and agriculture machinery production, medical and scientific instruments; processing precious stones and metals. (Federal State Statistic Service. 2016.) Chemical industry, metallurgy, mechanical engineering, hydrocarbon production, foodstuffs industries, production of different kinds of vehicles, crafts are the most developed industries in Russia.

There are about 7,6 thousand chemical production enterprises in Russia. The industry is developing rapidly, with innovation and use of emerging technologies, which leads to an increase in output. The technical equipment was changed, the product quality increased. The chemical industry includes: chemical feed-stock mining industry (extraction of raw materials), base chemistry (salt industry, mineral fertilizers etc.) and organic chemistry production (ethylene, methanol, synthetic resin, chemical rubber and fibres and plastic materials.) and its processing (tyres, plastic products etc.). Chemical production enterprises, as a rule, located close to raw material resources bases: the upstream materials for chemistry are natural gas and oil, natural salts, apatites, phosphorus compounds, sulphur and wood waste products. (Chemistry 2016)

Russia exports much mineral fertilizers, hydrogen nitride, chemical rubber and methanol. The share of exports of chemical products amounted to 7,4 % of the total in 2014. At the same time, Russian chemical industry is highly dependent on imports of various products. Import of chemicals to Russia was almost two times more than Russian export. The main products imported to the Russia - medicaments (the bulk), synthetic and natural rubber and crop protecting agents. (UTMAG. 2015)

Russian automotive industry began to benefit from an availability of disposable income of households, better internal management and protectionist policies in the beginning of 21st century. Domestic original equipment manufacturers refrained from importing components with the purpose of uphold the affordable prices for local consumers. However they did not succeed to update the quality level. Western car manufacturers are interested in

manufacturing cars in Russia considering unsatisfied demand, low labour cost, a vast resource base and the geographical location. (Doing business with Russia. 2005, 175.) With the continuous growth of disposable income, peoples' preferences will shift towards better quality and design.

Ford, Volkswagen, Skoda, BMW, Ford, Renault, Toyota, Chevrolet, BMW opened plants in Russia in 2000s. Renault-Nissan became a co-owner of Russian AvtoVAZ in 2008. Renault-Nissan used production capacity of AvtoVAZ as a part of cooperation between them. The deal provided the financial aid from the Russian government in exchange for their technology to AvtoVAZ. Even though the new models of cars were launched, modernization done, AvtoVAZ still has serious financial troubles. This was mostly due to recent devaluation of rouble. There are also Peugeot-Citroen-Mitsubishi, Opel, Kia plants at Russian territory. (RBK. 2009; Gazeta.ru. 2016)

The production capacities are not fully used by organizations for product output almost in every Russian industry sectors. Thus, the level of annual average production capacity use is quite low in manufacture of food products, manufacture of textiles, manufacture of non-metallic mineral products, manufacture of machinery and electrical, electronic equipment and transport equipment (data from 2013). For example, this level in manufacturing of paints, coating materials – 43%, chemical fibres and threads – 58%, in manufacturing forestry tractors – 19%, excavators – 12%, motor cars – 68%, bicycles – 67%, watertube steam boilers – 29%, in manufacturing of reception apparatus for television – 50%, in manufacturing of wood products -44% (for sawn timber) and 85% (for particle board), in manufacturing of cotton fabrics – 64%, wool fabrics – 29%.

For comparison, the biggest levels are in manufacture of paper – 81% and of paperboards – 77%, mining and quarrying – 61-80%, manufacture of steel - 84%, pig iron – 92%. (Federal State Statistic Service. 2015 (b).)

There is enough capacity to meet all demand. Even though capacity cushion allows for unexpected circumstances, it needs more investment, utilisations lower, but unit costs are higher. The risk of having resources that are never used is appear. (Waters, D. 2009, 244.)

Russian's economy remains dependent on oil and gas and a few other natural resources. Russian industry sometimes characterized as highly inefficient. Lot of equipment is in need of modernization. On the other hand, it has developed large manufacturing capacities, notably in machinery. Defence industries were converted to civilian use, and the Russian

Government is engaged in process to privatize state-owned enterprises. (International Business Publications. 2011, 36)

Russia experienced a reduction of the manufacturing sector of the economy, the closure of large industrial enterprises, which are unable to compete on market. For instance, the industrial production level was amounted to 80% in 2011 from the level of 1989 year. (Gurova, T., et. al. 2012.) Owners of industrial enterprises instead of modernization of production, which requires significant investments, prefer to increase productivity and profits by increasing the load upon the personnel, reducing in wages due to employment of low-paid foreign labor migrants from CIS countries. The level of wages in the manufacturing sector remains low. (Nekipelov, A., at al. 2013.)

Competition in Russian industry is not tight. Some Russian companies are unaffected by competition at all: companies of food industry, textile, wood processing, machinery-producing industries, electrical equipment production and metallurgy. However, there is a slight competition between Russian and foreign companies, because of undeveloped economic environment, where Russian enterprises do not have advantages. The level of specialization in production is rather low in Russia, for that reason country cannot carry on extensive foreign trade with final goods. (Strovskiy, L., et. al., 2013, 12-13)

The undeniable necessity is the change of the exports structure and its retargeting from resource-based constituent to export of processed products and high-tech products. There are obstacles such as outdated engineering capability, lack of domestic production of components, insufficient experience of high-volume manufacturing of high-tech products, poor penetration of modern industry standards, production processes and quality systems management, indolence of many business leaders, bureaucratic inflexibility, complicated financial matters, customs regulations. Russian market share in world production of high-tech products is negligible. Russia can compete only in space technology and services, combat aviation, nuclear powered technologies and some type of products of electronics industry. (Strovskiy, L., et. al., 2013, 473)

One of the national priorities - localization of production of high-tech medical equipment in Russia and the emergence of new technologies. There are a lot of X-ray equipment manufacturers; monitoring equipment, anesthesia and respiratory equipment, a simple ultrasonic devices and more are produced in Russia. At the same time, 80 % of medical equipment and nearly 100 % of high-tech medical equipment is imported. In 2009, the assembly of high-tech medical equipment - computerized tomography scanners and ultrasonic scanners was launched in Russia by General Electric Healthcare together with

CJSC "Medical Technologies Ltd". The equipment has a Russian interface arrangement, which is convenient for users, the demand is very high. It was also planned to produce components domestically. CJSC "Medical Technologies Ltd" - one of the leading Russian developers and manufacturers of medical equipment. Russian medical equipment market is underdeveloped, but potential for growth is high. (Budget.ru. 2011)

The Russia's strengths are in inventions, designing and engineering which were earlier and ongoing now, the high educational level of the population, combined with a relatively low salary level. The main problem has always been - the transition from the developmental prototype to the high-volume manufacturing. (Rusnak, A.; Cavusgil, S., et. al. 2012, 496) At the same time, the bedrock of activities of contract electronics manufacturers is just series production by orders of designers and developers, who will be able to dedicate more time and money in development and sales. Series production also serves the objectives of reducing the costs by increasing the number of produced items.

The devaluation of the ruble and import-substitution policies have the potential to affect the transfer of electronic production to Russia, especially in segments such as telecommunications equipment and industrial electronics. There are opportunities for the realization of complex projects that require highly skilled personnel in Russia. Deepening of assembly concerns niche or unique products with special features, though the production of standard components is profitable in hundreds of millions of pieces for the global market. (Kuzmina, E. 2016) The Russian telecommunications market became mature several years ago, and it keeps on developing. There had been a boom in cellular telecommunications segment. The biggest operators upgraded their equipment, expanded product lines, diversified services and captured new markets. (Doing business with Russia. 2005, 147.) About 5 millions TV sets a year was produced in Russia recently. The main manufacturers are Russian subsidiaries of LG, Samsung, Philips, Rolsen, Vestel, Rubin. (TV sets production in Russia. 2012)

However, some Russian enterprises with good prospects had facilities for the assembly in Asia. Only recently the assembly in Russia became cheaper because of the devaluation of the ruble. Thus, ruble depreciated against the Chinese yuan almost in two times during the period from March 2014 to February 2016. For instance, the Russian Design Bureau "Datacom" which produces, in particular, dashboard cameras and automobile radio, revealed that the production cost of assembly in Russia 20% lower than in Taiwan. The faulty goods rate fell from 3 to 0.5% during the period less than a year after the transferring of assembly to Russia. The labor productivity is 2.5 times higher in Russia, at

the same time labor costs per worker is three times lower than in Taiwan. "Datacom" also was able to reduce logistics costs and save on import customs duties. (Kuzmina, E. 2016)

Other Russian engineering company, VOCORD, which develops systems of video surveillance and telecommunication solutions, is outsourcing from Russia now. Russian partners assemble some branching points and boards according to VOCORD's drawings. Company's representatives studied the Russian assembly market and discovered that the quality of the Russian products is not inferior to foreign analogues, but much cheaper. (Kuzmina, E. 2016)

During the period from 1996 to 2010, Russia defined several Federal Action Programmes related to industrial policy, science and technology development. The solutions such as the attraction of foreign investments and creation of joint ventures for the licensed production was proposed as the practical implementation in the most of these documents.

According to the present Concept of long-term socio-economic development of Russia till the 2020, among the priorities of foreign economic policy are the promotion of export and achieving global competitiveness of the manufacturing industries and services, including:

- promoting the establishment in Russia production of finished goods with foreign participation;
- engagement of advanced foreign technology and foreign investment in manufacturing industries for their technological modernization and increased competitiveness;
- encouraging the cooperation between Russian and foreign companies, which have access to foreign markets;
- development of infrastructure of border areas, taking into consideration the needs of the economy of the neighboring states. (Concept of long-term socio-economic development of the Russian Federation. 2008, part 5)

Russia is interested in relationship development with EU countries and cooperates with EU in fields of energetics, outer space exploration, chemistry, metallurgy – where Russia has competitive strengths. (Strovskiy, L., et. al., 2013, 29)

## The special economic zones in Russia

Some ideas and objectives were partially realized in the creation of special economic zones on the Russian territory. The special economic zones have special juridical status; the business and trades laws differ from the rest of the country. The special financial policies regarding investing, taxation, trading, customs are applied. Additionally, companies may be offered tax holidays, aid grants, governmental preferential loans, lowered rate for renting premises. (Federal Law № 116-FZ, 2005.)

The special economic zones are aimed at the development of high-tech industries, import-substituting production, tourism, new-product development, the enlargement of transport and logistics systems. The special economic zones will stimulate trade growth, will allow to increase foreign investment, investment projects, to create workplaces. The model was adopted from experience of China, where the same practice was started in 1970s. (Trushko, M. 2013.)

Special economic zones are divided into industrial developmental zones, technical-innovation zones, port areas, and touristic zones. The variety of industrial products are manufactured within the industrial developmental zones (in Lipetsk, Pskov, Samara, Sverdlovsk regions and in some others). It can include zone of one industry branch, zone of one enterprise, export-production zone, and industrial park. Placement of production in industrial zones can increase the competitiveness of products at the Russian market by reducing expenditures. The priorities of industrial production zones are motor cars manufacturing, construction materials, chemistry and petrochemistry, household appliances and retail equipment.

The residents of technical-innovation zones were granted over 350 inventions patents. The production and services of residents are in demand on world market. The buyers for their production are the biggest world companies - Boeing, Airbus, Apple, and, among the partners – Philips, Samsung, IBM, Nvidia. (Trushko, M. 2013; Russia. Special Economic Zones.) The private investment in the special economic zones reached 99.5 billion. rubles in 2013. The total production in there was grown by 88% in 2013. There was increase in workplaces by 40% during the year 2013. (Ministry of Economic development of the Russian Federation. 2014)

Russia's federal special economic zones host over 300 investors from all over the world, such as General Motors, Yokohama, Cisco, Isuzu, Rockwool, Abb, Bekaert, Ford, Novartis, Nokia Siemens Networks. (Trushko, M. 2013; Russia. Special Economic Zones.) Russian

company GS Nanotech has worked its way up from an assembly of memory chips to design and manufacture of its own data processing machine SiP Amber S2, during 2012-2014. GS Nanotech is Russia's one of the most rapidly growing R&D and production centers with team of the high-qualified and experienced engineers. GS Nanotech manufacturing facilities are located in the special economic zone in Kaliningrad region. (GS Nanotech [www.gsnanotech.com](http://www.gsnanotech.com); Kuzmina, E. 2016)

Russia belongs to developing economies, some experts predict growing potential of emerging economies, especially BRICs countries. (Daniels, J., 2009, 218-221)

### 3.2 Measures of economic policy and legal basis for toll manufacturing in Russia

The international toll manufacturing mechanism it is processing of customer-furnished raw materials in compliance with the requirements of customs procedure called "inward processing" or "processing on the customs territory".

The legal basis for performing the international processing on the territory of the Russian Federation consists of:

#### 1. International agreements and treaties such as:

- The International Convention on the Simplification and Harmonization of Customs procedures (Kyoto Convention), updated in 1999. (Specific Annex F)

Russia has acceded to the Kyoto Convention and it came into force for Russia in 2011. There are 103 Contracting Parties to the Convention including Belarus, Kazakhstan, EU countries. (World Customs Organization.)

- The Customs Code of the Customs Union.

Russia is a member of Eurasian Customs Union (EACU) - an economic integration between Russia, Belarus, Kazakhstan, Armenia, Kyrgyzstan. Eurasian Customs Union provides unified customs territory, so the customs territory of the Union comprises the territories of that countries. The member states develop economic integration and remove all customs borders between each other. Member countries impose a common external tariff on all goods entering the Union and they frame the common trade policy and customs regulations, including the Customs Code of the Customs Union. The legislation of member states can also be implemented unless otherwise established by the Customs Code of the Customs Union. (Eurasian Economic commission.)

2. Laws of the Russian Federation, for example,

- The Federal Law on Customs Regulation in the Russian Federation №311-FZ of 27 November 2010. (as of 01.01.2016)
- The Federal Law on the principles of state regulation of the foreign operations №164-FZ of 8 December 2003 (as of 13 July 2015)
- Civil code of the Russian Federation and other laws.

3. Secondary legislation of the Russian Federation such as administrative orders.

4. Contracts or agreements between parties.

Parties of international contractual agreement are free to choose applicable law both for the contract as a whole, as well as for individual parts of it. If applicable law is not chosen, then, the national law of processor is applied, according to Russian Civil code. (Articles 1210, 1211)

Measures of economic policy applied to toll manufacturing vary depending on the national law. However, their common feature is that goods for processing are not subject to import customs duties and commercial policy measures (non-tariff measures) on the recipient country's territory, under the term that finished goods will be exported. Such general rules are applied, for example, at the territories both of the European Union and Russia for inward processing. (Union Customs Code, article 256; Customs Code of the Customs Union, article 239) Non-tariff measures may include quotas, export restraint, embargoes, licensing, technical measures, standardisation, restrictions and more.

In order to attract foreign customers, many countries impose additional tax benefits. When goods for processing are brought to Russia, in addition, they are not subject to VAT and the excise tax, if products of processing are re-exported within specified deadlines. Products of processing are not subject to non-tariff measures when re-exported. Moreover, Russian VAT is levied at rate 0% on processing services. (Customs Code of the Customs Union, articles 4, 249; Tax Code of the Russian Federation, articles 151, 164, 185)

The only suspension system is used in the Russia when procedure of inward processing is applied. It means that the goods are initially under full conditional exemption from the payment of import customs duties, taxes and without the application of measures of non-tariff regulation. For that reason security to Customs should be provided before using this procedure. It could be bank guaranty, pledge of property, sponsorship or depositing. The



Customs Code allows to change this customs procedure to the other one, prior to the expiration of the processing. If applicant chooses, for example, procedure of release for domestic consumption (finished products and the remains are not re-exported), the import customs duties and taxes must be paid retrospectively and interest money as well. (Customs Code of the Customs Union, articles 239, 249-251; The Federal Law №311-FZ, articles 137-146, 227.)

Other countries may use the drawback system, when duties and taxed are paid and later refund when the end products are exported. In that case, it is not required to provide advance security to Customs. (European Commission.)

Presuming that, the aim of importing goods is their processing, goods must not be used for other purposes, and its utilization and settlement is limited, they are not in free circulation in Russia. They hold the status of foreign goods and are placed under customs control from the moment of crossing the border. (Customs Code of the Customs Union, articles 96, 110.) Customs bodies have right for surveillance and keeping records of goods for processing. Term of processing may not exceed three years. Foreign goods may be replaced with equivalent goods - goods of the Customs union in some cases (under the permission of customs authorities).

Processing operations may include, for example, refining of goods under which foreign goods lose their individual characteristics, manufacture of goods (installation, assembly, disassembly and fit); repair (restoration, replacement parts). Product yield should be estimated. Operations for processing of goods does not include, for example, the use of foreign product as aids in the process; copying and distribution of information; growing animals or the cultivation of plants; operations to ensure the safety of goods in preparation for their sale and transportation. (Customs code of the Customs Union, article 241)

Some substances are prohibited for processing in Russia. These include undenatured ethyl alcohol; ethyl alcohol and other spirits; acyclic alcohols; biodiesel and mixtures thereof with codes 2207, 2208, 2905, and 3826 of the Common Customs Tariff of the Customs Union. (Enumeration of goods.)

Also, goods originating from the customs territory of member state of the Customs Union cannot be placed under the customs procedure for processing on customs territory of Russia, because they are not considered as foreign. (Legal base Consultant Plus (b).)

Any applicant, the resident entity of the Customs Union, may obtain the permit on the terms of processing issued by Customs office. In case if there are many actual manufacturers are expected, all of them must be mentioned in that permit. Besides, the possibility of identifying of foreign goods in the products of their processing should be provided: taking samples, photograph, use of existing labelling, serial numbers, affixing of seals, stamps, other markings etc. Waste and scrap generated from processing (if suitable for further commercial use) must be placed under another customs procedure, usually, re-export, same as the remains.

The monetary penalty or even seizure of goods for processing can be applied in case of violation of existing rules. (Code of Administrative Offences, chapter 16) The applicant (declarant) is responsible for the compliance with legislation.

### 3.2.1 The main features of toll manufacturing agreement

From a legal standpoint, the toll manufacturing agreement is a contract for work (*"locatio conductio operis"*, in Latin), where one person undertakes to perform or execute a particular piece of work, and he promises to produce a certain specified result. This person is called the conductor (*operis*). (Zimmermann, R. 1996) This kind of relations was set in Roman law, now they may be called "contract of hiring work", or "Contract of Independent Contractor Work", - where one party, contractor, undertakes to perform specified work commissioned by the other party, customer, and deliver its result to the customer, while the customer undertakes to accept and pay for the result of work. This definition can be found in article 702 of the Russian Civil Code, ("Договор подряда", in Russian.) (Osakwe, Ch. 2008, 556) In Finnish language it means "urakkasopimus" (Fagradiants, I. 2006, 570.)

The obligations concerning work performance is creation of a thing; or rather to make something than to give something, as in contract of supply. Performing work is aimed at certain specified result which has tangible, actual, physical, material form. At the moment of concluding a contract the thing which is going to be handed over is not exist yet, it is destined to be manufactured. The specified result of work and its material form allow also to distinguish the contract for work from the pure service contracts. (Valjavina, N., at al. 1997, 304)

The Russian Civil Code provides varying rules for contract for work, depending on title of materials. For example, the contractor is liable for failure to safeguard the customer's materials, but he is not liable for their accidental loss and damage. The cost of material

losses in this case is for the account of customer - the owner of materials. The cost of accidental loss and damage of the result of work done before its acceptance by the customer is for the account of contractor. (Civil code, article 705)

The price of work includes the compensation for the contractor's expenditures as well as his fee (toll). It could be volume or time based payment in money. Payment in kind may not be the best choice in international practice, because of customs rules complications and difficulties with their distribution by manufacturer.

Toll manufacturing agreement may include any other elements, than pure contract for work. According to freedom of contract, the parties may conclude a contract which contains elements of different contracts complemented by law or other legal acts (mixed contract). (Civil Code, article 421) Toll manufacturer can, for example, provide additional services such as product engineering; inventory services: warehousing cataloguing and tracking of raw materials; shipping: to expedite shipping of finished goods to secondary end users; customer service, including customer service representatives. It cannot be ruled out that toll manufacturer supplies the part of raw materials for processing, if agreed so.

International toll manufacturing scheme has features which allow to classify it as international contract, or cross-frontier operation: goods are crossing border; the one party is foreign; the transaction currency is foreign, relative to other party. There are could be other classifications and vision, because there is no precise definition in law. (Kanashevskiy, V. 2010, 1-47)

### 3.2.2 Measures of the trade secret and intellectual property protection

Ordering customer, besides of making manufacturing orders, may transfer process of production or other intellectual assets. The licensing of proprietary trade secrets, know-how, processes, data and materials to the toll manufacturer opens risks of teaching a third party to copy proprietary processes and allowing the third party to access valuable know-how. The lack of protective laws or effective countermeasures against misuse in BRIC countries may heighten these risks. (Practical Law Company. 2013; Cavusgil, S., et. al. 2012, 226)

The definition of a trade secret and the protective measures can vary depending the legislation of each particular country and international treaties as well. The difficulties can occur when enforcing contracts and other legal rights in the manufacturer's jurisdiction.

The Practical Law Company suggests that the London Court of International Arbitration or arbitration in Geneva can be considered as an arbitral forum for a Russia agreement. (Practical Law Company. 2013) However, international legal disputes can be extremely expensive and inconvenient. Dispute resolution provisions in contract can specify either the customer's national court or manufacturer's national court as the forum. (Jimenez, G. 2012, 67)

In order to mitigate risks for the potential loss of trade secrets and the enablement of a new competitor, the customers should use the practical and institutional measures in toll manufacturing agreements and arrangements.

Before entering into any toll manufacturing transaction, the selection of the prospective manufacturer should be done in accordance with due diligence process. This may include background checks of the manufacturer's senior management, audits, study of the manufacturer's supply chain, trading partners and business references from them, if possible. (Practical Law Company. 2013)

The toll agreement can be provided for a limited initial term with a new partner. Provisions should include making renewal terms at the company's discretion, requiring non-compete covenants, a right to terminate for convenience, adequate trademark protection, specifying means for dispute resolution.

Lawyers advise to use protective measures in internal control such as centralized oversight when supervisory responsibility and signing authority are delegated to one member or a core team of company management. Where internal treatment cannot be used, the customer company may seek for its personnel themselves or delegates to work in the manufacturer's facility.

The less manufacturer personnel has access to trade secrets and technological assets, the more safe they remain. If possible, it can be beneficial to allocate different phases of the process to different manufacturers or separating the process into different phases within a single manufacturer's organization. The company can require that separate teams of employees and management personnel work on each phase, and that internal firewalls prevent the spread of information between the teams. Confidential information should be provided at as-needed basis and deleted from the manufacturer's systems after use. (Practical Law Company. 2013)

### 3.3 Toll agreement in action: cooperation between Finnish concern PKC Group Oyj and AEK Ltd, Russia

*Since the electric wiring of a car is deeply in carbody, the ordinary customer notices it seldom. But if it happens that electric wiring does not work, it cannot go unnoticed.*  
*Timo Saukkonen, «PKC Group»<sup>2</sup>*

A positive example of collaboration in the field of contract manufacturing, more specifically, the scheme of international processing of raw materials under tolling agreement, will be shown further on the example of cooperation between the Finnish concern PKC Group Oyj and its owned subsidiary - Russian limited company AEK Ltd.

PKC's story begins with Pohjolan Kaapeli Oy, a subsidiary of Nokia, establishing a wiring systems factory in 1969 in Kempele, Finland. Through the long period of its history, merges and acquisitions, PKC Group operates now in two business areas: electronics and wiring systems for both passenger cars and commercial vehicles. (PKC Group. History. [www.pkcgroup.com](http://www.pkcgroup.com)) Doing the wiring systems business PKC Group designs, develops, manufactures and integrates tailored electrical distribution systems and related architecture components, vehicle electronics, wires and cables especially for trucks and buses, light and recreational vehicles, construction equipment and agricultural and forestry equipment. In addition, PKC develops and manufactures electrical cabinets, power packs and electrical distribution systems for leading rolling stock manufacturers. The Group's customers are globally operating Original Equipment Manufacturers (PKC Group. Corporate Responsibility Report 2015, 3)

Name "PKC" derives from "Products", "Know-How", "Customers" which reflects values of the company – quality products, high professional qualification of personnel, satisfied customers. (Кулю, М. & «PKC Group». 2004, 182).

Besides know-how in technology, the success of PKC Group is based on effective relation with partners. During the early years, company gained two significant customers: Saab (Saab-Valmet and Saab Scania) and Volvo (Volvo-Auto Ab), that brought the growth and success of the company for the future. Rapid growth of business started in 90-ties, when

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<sup>2</sup> (Kulju, M. & «PKC Group». 2004, 5).

company adopted innovative mindset and work simplification. (PKC Group. History. [www.pkcgroup.com](http://www.pkcgroup.com))



IMAGE 1. Electrical distribution systems. PKC Group Oyj.

At the end of 2015, PKC has facilities in 11 countries including Brazil, China, Estonia, Germany, Lithuania, Mexico, Poland, Russia, Serbia and the USA. Revenue is 908 million euros in 2015. Wiring systems business represents 93.2% of PKC's revenue. Gross capital expenditure is 38,1 million euros, EBITDA excluding non-recurring items 63,9 million euros. (PKC Group. Corporate Responsibility Report 2015, 36)

PKC had approximately 20 000 employees in 2014 which is almost 4 times more than in 2010. (PKC Group. Key Data. [www.pkcgroup.com](http://www.pkcgroup.com)).

Cooperation with Russia was commenced by the «Carhatec Oy» company - a subcontractor of the «PKC Group» in Soviet period, in 1991. At that time the production of harnesses was started in the rented premises of 50 m<sup>2</sup> using the labour of three workers. The location of the production plant was well-chosen near the Russian-Finnish border, on the territory of the Russian city Kostomuksha, Republic of Karelia. The goal of the firm «Carhatec Oy» was the establishment of its own enterprise, the goal was achieved in 1993. The new Russian company «Karhakos» Ltd started the production of harnesses for Scania and Volvo. (Kulju, M. & «PKC Group». 2004, 255)

As far as manufacture and staff increased, premises did not meet the necessary requirements anymore, it was decided to build a modern plant in the city of Kostomuksha. The Government of Karelia supported this project. It took 10 months to build the production plant from green field in 2001. It is one of rare cases when a foreign investor constructs a plant for carrying out processing operations on the territory of Russia. (Kulju, M. & «PKC Group». 2004, 258) In 2002, a new Russian company, AEK Ltd, was established and later it was merged with Karhakos Ltd. Both of these Russian companies became a part of the Finnish concern PKC Group in 2003. Carhatec Oy was also purchased by PKC Group. (Viitasaari, J. 2003)

As the vision of PKC Group is the preferred supplier in electrical distribution systems for transportation industry globally, the company always strives to correspond to it. In the age of intense price competition the company's executives thought about redeployment and new structure in the beginning of 21 century.

Harnesses and cables manufacturing is a field where hand work is needed, it is labour-intensive. Manufacturing of harnesses and cables in Finland became low-return. That was the reason of starting subcontracting in Russia and also in Estonia, - countries where labour cost is lower. Whereas the company's goal was to be a competitive partner in terms of price and quality, it was decided to engage regions with low level of expenditures. Market competition was strong: "...Our main rivals are working in Ukraine, Rumania, Hungary, China etc. We are reaching competitive advantage and growth now and we will seek it as we go forward by virtue of plant developing in Kostomuksha..." , - Mika Kari, one of the PKC Group's leaders, said about AEK subsidiary. (Kulju, M. & «PKC Group». 2004, 212, 219, 225-226)

New models of harnesses for Volvo and other clients were planned to produce in Kostomuksha, Russia. Harri Suutari, CEO of PKC Group, always stood for economic rationalization. He said that «...we can achieve significant economy on expenditures deriving from distribution and production if we center all processing chain in one place". He supported idea of investment in placing more productive capacity and extension of AEK's production plant in Kostomuksha. (Kulju, M. & «PKC Group». 2004, 218, 227).

At present, the main activity of the Russian company with foreign investments AEK Ltd is manufacturing of electrical distribution systems, harnesses and cables, wiring and electronic components for trucks, agricultural and forestry equipment.

### 3.3.1 Operations at AEK plant

According to the tolling agreement between one of the concern's companies «PKC Eesti As», Estonia and AEK Ltd, Russia such components as wires, cable grips, terminals and connectors, plastic granules are supplied from an Estonian town Keila to the AEK's factory in Kostomuksha for manufacturing wire harnesses. Supplied components, as well as final products are in the ownership of PKC Group, who is also arranges sales and distribution. AEK only provides processing services (manufacturing) and gets a fee, or toll for it. (Romanova, Rimma 8 October 2015)



IMAGE 2. The wiring harness at AEK. Photo by author.

Wire harnesses manufacturing process includes cutting and crimping of wires, soldering, molding, isolation, assembly, testing, quality control, packaging. A harness is a unit that mainly consists of wires, terminals on the ends, a cable grip in which wires are inserted, and insulation. One harness may contain from 10 cm to 3 km of wires. For example, a finished harness may be installed under a facia panel at an automobile plant.

Customs bodies use photography and take samples and prototypes of supplied components in purpose of customs identification. For example, analogous plastic granules are not produced on the territory of Russia, so it is impossible to replace them with local equivalents or counterfeits. During manufacturing process the plastic granules are being melted for making PVC insulated wires. (Egorov, Dimitri 06 October 2015).

The wiring is being manufactured to an order for a certain motor vehicle, it is a custom-made product. PKC Group designs and develops models of harnesses which are assembled



at AEK's plant in accordance with the instruction for certain vehicle. Quality is the main priority for the company. The acceptance rate of faulty goods is calculated according to Parts Per Million (PPM): amount of faulty goods divided by finished goods and multiply by 1 million. The less PPM rate, the better the performance. One PPM means one defect/event in a million. Many customers measure quality performance using PPM, the rate should not be lower than 50 PPM or 0.0050%. Quality of finished goods is checked in a laboratory. Quality control begins when the components arrival at the factory, and continues until the final production testing. Contractor's product must exactly answer specifications and quality requirements of a customer. Employees get the job training, which is obligatory, and they take a qualifying exam. They also undergo safety knowledge assessment. AEK plant is certified in accordance with requirements of the ISO 9001 quality standard as well as the ISO/TS 16949 quality standard for the automotive industry and ISO 14001 - environmental management. (Maslova, Vera 08 October 2015)

Arrival of components, their ordering, distribution and consumption are handled by a WiseTime system, which is partly owned by PKC Group. Operations planning managers are in charge of orders handling; their task includes well-timed shipping products to the customer. Production planning is a converging point between PKC Group and AEK plant. The delivery of material to the plant is planned as closer as possible to the time of its demand (dispatch) in order to minimize warehousing. The goal – is no more than 10 days from the moment of arrival of components to the plant and their dispatch. (Maslova, Vera 08 October 2015)

The absence of one kind of components can stop the entire production. The plant uses a sequential manufacturing process. Thus, assembly lines are installed in such a way that each section is in charge of a certain part of work (one batch of components is being treated), at the next line section – the other one. It is impossible to carry out each stage of the operation without the readiness or preparedness on the previous one. Manufacturing and assembling begins with cutting at special machine-tools. Next stages are crimping of wires, isolation, marking of terminals and connectors, cables. Prepared wires are collected and placed on racks. Assembling is the most important stage when separated cables are gathered in bunches, equipped with a duct, and threaded through the loom on the assembly table above a drawing. Finished harnesses are being tested. Those, that pass the test, are packed and are stored till further shipment. Harnesses that fail the test go either to scrap or rework.

All of the line sections are located in a line to escape turnings, flowing around, bending and any extra movements. As a rule, a master-binder of harnesses is doing almost the same

actions and procedures of associated part of manufacturing and he/she is responsible for one line section. Therefore, high productivity is achieved by means of a smooth flow of actions, mastering the skills, improving of acquired skills. A beginner does the same operations much slower. If novel products are being adopted, the employees are given the new tasks and training. The modernization of harnesses also requires the design and development of new components, contract for their supply, and, sometimes, the supply of equipment for their manufacturing. (Maslova, Vera 08 October 2015)



IMAGE 3. At AEK's plant. Wires on reels as raw materials. Photo by author.

When calculating the yield of the product the process losses, the components, the time allowance for manufacturing are taken into account.

Manufacturing and order delivery process runs so smoothly that the plant works without idle periods. Workload depends on the numbers of orders. The clue to a successful flows arrangement are timely planning and forecasting based on current customers' requirements (quantity of products, delivery times). It is also necessary to take into account plant's hours of operation and upcoming holidays. As it is known, holidays in Russia do not coincide with ones in Finland or EU. This means that before upcoming Russian holidays, it is required to increase a production rate and to produce larger quantity of goods in order not to reduce or stop deliveries to European countries where are no

holidays at the same dates. On the contrary, during holidays in EU the shipment of components are suspended, so they should be preordered.

Most part of inactive days fall on the beginning of January when New Year and Christmas are celebrated in Russia. Employees are on public holidays for more than one week. This is preceded by long Christmas holidays in EU in late December. As a result, December and January is the most tense period. Public holidays should be considered while dealing with other operational issues.

Finished products are dispatched usually 5 days a week. It means that trucks with goods cross the customs border every week day, therefore the work with the customs office takes place every working day. If a customs clearance is needed at weekends or public holidays, it is also possible, but demands an additional adjustment.

Transportation is performed by and at the cost of PKC Eesti, Estonia. Usually products are delivered in recyclable packaging or reusable tare such as pallets or reels. PKC Group aims to reduce the environmental impact of manufacturing. (PKC Group. Corporate Responsibility Report 2015, 26-27)

Finished goods are sent back to the order-giver to the concern's main plant in Keila, Estonia. When harnesses brought back to Estonia, the import customs duties and VAT must be paid according to legislation of the European Union and Estonia. The processed products may be released for free circulation in European Union with total or partial relief from import duty. (The Union Customs Code, Article 259)

Scrap resulted from processing (it contains copper and other substances) is also sent back to the order giver. It is done in accordance with the customs procedure of re-export. The amount of scrap is estimated as tens of tons per year. (Egorov, Dimitri 06 October 2015).

Finished goods (harnesses) are distributed from Keila to companies - customers of the PKC Group concern. Quality control conducted at AEK plant, guarantees that customers will get perfect quality production.



IMAGE 3. Treated wires placed on racks, AEK Ltd. Photo by author.

The most important customers of PKC Group are the car manufactures that operate worldwide: Volvo Truck in Sweden (wiring for trucks and road-building machinery); "BRP" in Rovaniemi (wiring for snowmobiles and all-terrain vehicles); German company "Hermanns" that owns a factory in Finland (wiring for headlamps); John Deere in Joensuu (wiring for tractors); AGCO corporation (wiring for tractors and agricultural vehicles). AGCO products are sold through five core brands: Challenger, Fendt, GSI, Massey Ferguson, and Valtra (AGCO corporation. [www.agcocorp.com](http://www.agcocorp.com)).

Emphasising the importance of supplier relationships, the CEO of John Deere stated: "We've been pretty demanding on ourselves and others, but I'm confident ... that by working together to aggressively reduce costs, increase quality, and improve delivery time, they've become stronger businesses, as well as stronger Deere suppliers. Like us, they too need a great business in order to sustain long-term success." (Daniels, J., et.al. 2009, 712)

Most factories that buy wiring from PKC Group are located in various parts of Finland. Therefore, as goods cover the unnecessarily long distance through the city of Keila, the traffic route could be shortened if there were a hub in Finland. PKC Group together with AEK Ltd have been planning to create such a centre in order to improve the logistics process and develop a supply chain.

Taking into consideration that the period of inward processing on the customs territory of Russia may not be greater than three years, AEK Ltd obtains a new permit on the terms of processing issued by Karelian Customs office at the end of each processing period. According to Mikko Orenius, general manager of AEK Ltd, getting the next scheduled permit at the appropriate times and being in balance are among the essential factors of the company's operation environment. In current times the personnel copes with these tasks successfully. The general manager supposes that the volume of output is not sufficient and he hopes to increase it. The average turnover for the year is about 10 million EUR in wire harnesses manufacturing. (Orenius, Mikko 06 October 2015)

Whereas AEK Ltd does not have title to the components and finished goods, it is fair to say that AEK Ltd sells labour. The cost of finished goods (harnesses) comprises about 60 % of the cost of components and about 40 % of the labour costs. Insignificant part of the cost consists of other material expenses, layout of workspace, taxes. Under the contract the order-giver pays for a service according to time spent on manufacturing: EUR\hour or EUR\min. The periodic inventory checks take place on the plant conducted together with order-giver. PKC receives timely information on the financial condition of AEK. (Romanova, Rimma 08 October 2015)

The general manager identified the manpower shortage among the challenges. The plant employs about 700 people, most of whom are women - master-binders of wiring harnesses and cables. The situation is that nearly 10% of women employees continuously are on maternity leave. In addition, Russian legislation provides long leaves (annual principal paid vacation, annual additional paid vacation, sick leave, exam preparation leave etc.) Therefore it is always necessary to solve a problem of manpower deficit. (Orenius, Mikko 06 October 2015)

In the interview to author, workers said that they are satisfied with the wages and the work schedule. Among the benefits of working for AEK Ltd they mentioned an opportunity of employment without previous work experience, benefits and compensations according to the Russian Federation labour code, perks, job security, cleanliness and warmth. The company compensate the commute (provides a bus), partially compensates for the price of meals in the canteen. There is a well-equipped medical station at the plant where employees can visit a doctor for free, undergo physiotherapeutic procedures or have a massage. Workers believe that conditions of work or the work arrangements might be worse at other enterprises, it is not easy to find this kind of conditions of work without special education or previous experience in Kostomuksha. More than half of the workers have been working at the plant for more than 10 years.

As the women state themselves, such kind of job, - tying wiring harnesses and cables, has not popular appeal for men because it is monotonous. Women cope with tying much better. A worker must have a good memory, patience and concentration.

Conditions of work at AEK Ltd correspond with existing norms of the labour law of Russia. Collective bargaining agreement provides additional payments, bonuses, guarantees and compensations. Company's special funds are spent for cultural and recreational activities, health recreation events, vaccination. One of the collective agreement's section is dedicated to youth policy, working with the young personnel. The system for the implementation of proposals of employees is developing and improving in order to maintain quality. The company has set up a trade union. (Karelia official.) AEK Ltd was listed as socially significant organizations of the Republic of Karelia in 2008-2009. (Romanova, Rimma 08 October 2015)

### 3.3.2 Working in Kostomuksha – the mono-industry town

The manpower shortage does not relate to the negative appeal of being an employee of AEK Ltd, but deals with the situation in the city of Kostomuksha in general. During several years an unemployment rate in the city is less than 2%. In 2015 the rate of registered unemployment in Kostomuksha reached 1,3 % of all working-age population. (Voevodin, G. 2015.)

Kostomuksha is rather an exception when comparing unemployment levels nationwide. The official unemployment rate in Russia was 5,2 % of all economically active population (September 2015), but it can vary from 6 % to 10 % in some other federal districts. (Federal State Statistics Service. 2015 (a).)

However, it should be noted that Kostomuksha belongs to regions of the Extreme North, where the retirement age is lowered because of the harsh climate impact. Women reached the retirement age at 50, men at 55, so the older-age population was not considered as the employable population.

Kostomuksha is a prosperous city with the population about 30,000 people, which is located in the North of Karelia. City was built in the 70s of the last century and was fully oriented on the maintenance of Mining and Processing Integrated Plant (iron ore production). Remarkably, building of the city and the plant was carried out in cooperation with the Finnish construction companies; it was the largest project of the Soviet-Finnish cooperation. (YleTEEMA)

Kostomuksha was designed as a single-industry town, or company town, such practice has been pervasive phenomenon since the Soviet period. In such cities a significant part of the working population is employed in the one giant industrial company (city-forming enterprise), therefore it impacts radically on employment, on infrastructure and social problems. For example, as a result of the modernization and reorganization of the Mining and Processing Integrated Plant in Kostomuksha (now - open joint-stock company "Karelsky Okatysh"), the released labor force, – workers have to search for a new job. That was the problem a few years ago.

On the other hand, in recent decades a good many other enterprises were established in the city. Considering their annual growth, it can be affirmed that there is a high demand for labor in Kostomuksha. Thus, 926 businesses and organizations (by 01.07.2015) and also 1238 self-employed entrepreneurs (by 1.01.2015) were registered on the city territory according to the reports on socioeconomic development of Kostomuksha urban district. (Official site of Kostomuksha urban district.)

However, it is stated in these reports that there is a decrease in the number of employees in large and medium-sized companies. This is due to the processes of optimization and modernization of that business, AEK Ltd is among them.

The average monthly wage at large and medium-sized enterprises reached 49068.0 rubles<sup>3</sup> and exceeded the average wage in the Republic of Karelia by 30.8 % (January – June 2015). The percentage of young people aged 16 – 29 amounted to 30.6 % and women – to 50.0 % among the registered unemployed (June 2015).

It is concluded in the reports that the city possesses sufficient labour resources to ensure the long-range economic development. Nonetheless, a number of strategic initiatives is demanded in order to stabilize and raise the amount of the working population.

The following major critical risks have been detected:

- the decrease in the quantity of working-age population is expected.
- the aging of the city population has been recorded.
- insufficient job offering at city enterprises.

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<sup>3</sup> About 786 euros (as of July 2015, <http://www.kurs.metrinfo.ru/kurs/2015-7-1/>)



There are chances to solve the problem of manpower deficit if companies undertake an active recruitment campagne. As it was shown above, there are quite big percentage of unemployed women and youth –the potential employees.

### 3.4 The outcome of applying international toll manufacturing scheme by PKC Group Oyj and AEK Ltd

#### **From the perspective of the Finnish concern "PKC Group" the advantages of processing in Russia as follows:**

1. The lower labour costs in comparison with the EU countries. However, it is more expensive than in some other developing countries.
2. Geographical proximity of Kostomuksha and Russia as a partner in the whole. An order giver and its customers are relatively close to that region. Proximity of borders. Appropriate transportation connections.
3. Presence of own manufacturing capabilities – the plant and the land.
4. The possibility to control activities of the Russian plant, subsidiary (the product quality, the production process etc.).
5. Import of components to Russia for processing followed by export of refined products to other countries, do not require the payment of Russian import duties and VAT. Measures of non-tariff regulation are not applied as well.

#### **Among the disadvantages are:**

1. Changes in the Russian legislation and in a political situation are the main risks for both, an order giver and a contractor (processor). They can lead to a disruption of supplies, idle time or even work termination in the worst case scenario.
2. Accepting such working scheme demands estimation of all possible costs. They include transportation expenses, reverse logistics, which an ordering customer is in charge of; payment of VAT and customs duties when bringing back to the EU countries, productivity level and so on.



3. Taking into consideration that it is difficult to find suitable modern production, equipment and technologies in Russia, it is likely that it will be necessary to make investments in a factory or a production line, to establish a company. All this requires large placement of funds, effort and time. Thus, concern "PKC Group" had the greatest expenditures in its history which were invested in the development of the plant in Kostomuksha (Kulju, M. & «PKC Group». 2004, 258).

4. In case a foreign enterprise wishes to start an own plant for processing purposes in Russia, this will demand building relationships with the local authorities. Timely obtaining of permits for processing and the documents is crucial.

5. The necessity of transportation of tons of scraps and residues and determination of further use, recycling or disposal.

It is also necessary to consider the employment situation in the region, special aspects of the Russian labour legislation and public holidays. The work schedule must be planned properly. Probably, a substitution to absent employees must be found. As it was mentioned above, if majority of workers are women, some of them can be on the maternity leave. Besides, if region belongs to the zone of the Extreme North, for that reason women have the right to have a shortened working day and work not more than 36 hours per week. The regional salary coefficient and rated increase should be added to wages and salaries for employees working the zone of the Extreme North. Moreover, Russian legislation provides the right of various kinds of leaves for all employees: an additional leave for people who work in the Extreme North and equivalent territories; a study leave if an employee is enrolled in an educational institution. Under such circumstances an annual leave of an employee can have duration from 2 to 5 months in a year. Also, the reimbursement for travel expenses to vacation destination is provided. (Labour code of the Russian Federation, Chapters 19, 50)

It is also necessary to take into account hours of operation of a partner's plant in order to ensure continuous supply.

**From the perspective of the Russian AEK Ltd the advantages could be also determined.**

1. Due to the fact that AEK Ltd does not buy raw material, does not sell it, the fluctuation of the Russian currency, fall in the exchange rate, does not influence the number of deliveries and transactions with a foreign partner. In this regard, the currency risk is small.

2. Scrap and faulty goods are exported back to the order giver. Hence, AEK Ltd does not face with the problem of their storage, disposal, recycling or other treatment.

3. Accounting for the enterprise is quite simple. The production is economical. The production cost of finished goods consists mainly of wages expenses. (Romanova, Rimma 8 October 2015).

4. The experience of cooperation with the PKC Group in processing on the customs territory for foreign clients generated idea of manufacturing harnesses for Russian domestic market, in other words, processing for domestic consumption.

Thus, a few years ago it was decided to branch out a new workshop at the AEK Ltd plant and to run a production of harnesses for the "Volvo Group Russia" plant in the Russian city of Kaluga. Volvo plant in Kaluga is the first foreign manufacturing of goods-carrying vehicles in Russia, which was launched in 2009. Volvo and the authorities of the Kaluga region signed the investment agreement with investments in the project over 100 million euros. Today the Volvo factory in Kaluga is the most advanced enterprise in the Volvo Trucks system of plants in the world. (Volvo Group Russia, <http://www.volvogroup.com>; VolvoVostok, <http://volvovostok.n4.biz/>)

Foreign components for harnesses are imported to Russia from the EU and are processed at the AEK Ltd plant in Kostomuksha. Further the finished goods - harnesses, are sent to the Volvo plant in Kaluga. The components are owned by PKC Group, which also controls the quality.

This new activity allowed to expand production at AEK's plant, to increase turnover and profit, to provide jobs and also make contribution to Russian domestic industry and economy.

### **Some complications of the toll manufacturing practice were determined also.**

1. Strict control from customs authorities and securing of payment of customs duties, taxes (depositing and bank guaranty).

2. Storing and handling of components and final product should be well organised, because the manufacturer is obliged to use them thriftily and prudently. (Civil code of the Russian

Federation, article 713.) Risk of storage disorder or damage of goods should be minimal, company should provide proper conditions for that.

Besides, an arrangement of wage system was indicated as a practical suggestion. Successful organizational management, a high rate of productivity and uninterrupted supply require conditions, which match day-to-day realities of the enterprise's work process in the optimum way. The wage system at the plant can serve as an example. Currently, piece work system is used at the factory. Workers are paid a fixed piece rate for each unit produced regardless of time. It opens possibilities for productivity growth. Thus, during the period when the company paid a fixed monthly wages to the workers, the quantity of produced goods was much lower. Therefore, workers are interested in manufacturing more products if it leads to an increase in their wages. An application of the piece-work bonus system at the factory resulted in the 30% productivity growth.

For Russia and city of Kostomuksha the positive aspects are that the AEK plant provides work for the local residents, especially women and youth, and pays taxes to the budgets of different levels.

As it was stated above, supplied components and finished goods are owned by PKC Group. Therefore, AEK Ltd does not buy components and does not sell, but only provides processing and gets revenue from it. From this revenue (and from other operations as well) it pays wages to employees and domestic taxes.

AEK Ltd pays the following taxes, as provided for by the Russian legislation:

- Transport tax
- Land tax
- VAT (from the other operations, than international toll manufacturing)
- Corporate income tax
- Corporate property tax

The Government of Republic of Karelia had introduced tax incentives for organizations that carry out manufacturing of electrical machinery and electric equipment: the rates of corporate income tax and corporate property tax are reduced. (The Law of the Republic of Karelia of 28 June 2010 №1398-ZRK)

According to the provisions of the Budgetary Code of the Russian Federation, taxes are allocated to different budgets. Thus, VAT is transferred to the federal budget of the

Russian Federation at the rate of 100%. The transport tax and corporate property tax are transferred to the budget of Republic of Karelia at the ratio of 100%. The land tax is transferred to the urban district of Kostomuksha at the ratio of 100%. Personal income tax from workers' wages is transferred to the budget of the urban district of Kostomuksha at ratio of 15% and to the budget of the Republic of Karelia at the ratio of 85%. (Budgetary Code of the Russian Federation. Articles 50, 56, 61.2)

There are also other advantages for the city of Kostomuksha. Thus, the interest of the Finnish concern in the processing on the territory of Russia brought in Kostomuksha a new manufacturing plant. It revived the economy and improved the situation in this single-industry town. Today Kostomuksha is on the list of single-industry towns (monotowns) that have the risk of worsening socio-economic situation. (Government Executive Order of July 29, 2014 №1398-r.) In such conditions the role of AEK as socially significant organization becoming more important.

There are 319 monotowns in total in Russia in which inhabits one tenth of the country's population. Economy of those towns is dominated by a single industry or a company: the most part of the city budget usually is funded by them. People rely on the city-forming enterprise for jobs. Personnel reduction takes place quite often due to modernization, operational outage or closing-down of the company if industry is dying. Currently the socio-economic situation is unstable in most of these towns (Kuzmin, V. 2015.)

The Government of Russia takes measures to change the situation for the better and reduce social tension. Thus, it provides beneficial tax treatment for monotowns or the creation of the free economic zones there, encourages new productions and investment projects aimed at creation of new jobs, which are not related to the activities of the city-forming enterprises and improvement of infrastructure. For instance, in some monotowns it has been planning to build modern greenhouses to grow tomatoes and cucumbers. That is intended to compensate the lack of imported vegetables from European countries, as import-substituting measure. (Zykova, T. 2015)

According to the president of the Confederation of Labour of Russia, Igor Kovalchuk, one of the ways to solve the problem is retooling the existing enterprises in line with demand. "... this requires attractive conditions for businesses, which need to see some preferences before they agree to joint public-private partnership". (Alexandrova, L. 2013.)

Taking into account such state of things, it would be a good idea to consider possibility of attracting foreign investments and locating processing plants particularly in monotowns.

There are ten more single-industry towns and villages, besides Kostomuksha, in the Republic of Karelia. Six of them are in the most difficult social and economic situation: Kondopoga, Nadvoitsy, Pitkäranta, Pudozh, Muezerskiy, Soujarvi. All these cities are situated relatively close to the border with Finland. There are also many monotowns in the North-West of Russia. (Pulitzer Center on Crisis Reporting)

PKC Group is the Finnish corporation in which a discriminatory approach to the employment of workers and the use of off-the-books schemes in the labour relationship are unacceptable. The Russian subsidiary companies also follow these guidelines. The entrance of such enterprises with well-established values into the Russian market (creation of Russian branches) could be a solution to the problems of unemployment and assistance in employment of youth, people with disabilities and become a counterweight to the spread of shadow economy in Russia.

According to Corporate Responsibility Report, PKC Group adheres to ethical business practices, promotes fair labour and workplace practices and equal opportunities. PKC prohibits discrimination or harassment against any employee or applicant. Moreover, PKC reducing barriers to employment for those with disabilities. For example, at PKC's KTP subsidiary in Poland people with disabilities comprise 14.30% of the KTP workforce. (PKC Group. Corporate Responsibility Report 2015, 15) PKC is committed to conducting its operations in line with the ILO Core Conventions on Labour Standards and the OECD Guidelines for Multinational Enterprises. (PKC Group. Corporate Responsibility Report 2015, 20-22)

Matti Hyytiäinen, president and CEO of PKC Group Oyj believes that employees are the most important resource, PKC cannot be successful without them. "...on recent engagement surveys of our workforce, our employees provided feedback that our areas of strengths as a company included having a safe work environment, confidence in the leadership, strong commitment to quality and customer focus, along with an inclusive environment where discrimination or unequal treatment is unacceptable", - CEO emphasised. (PKC Group. Corporate Responsibility Report 2015, 6-7)

PKC maintains a zero-tolerance policy on bribery and corruption. No any of legal actions were taken towards to PKC for anti-competitive behaviour, anti-trust, and monopoly practices. A basic requirement is compliance with legislation, regulations and international norms. (PKC Group. Corporate Responsibility Report 2015, 18, 33)

The strong point also is that environmental impact of PKC's own operations is minimal. PKC Group aims to reduce the environmental impact of manufacturing by optimising deliveries, selecting recyclable materials or reusable tare and efficiently managing. PKC does not have monetary fines or any other sanctions for non-compliance with environmental laws and regulations. (PKC Group. Corporate Responsibility Report 2015, 35)

#### THE MAIN LINES OF ECONOMIC RELATIONS BETWEEN RUSSIA AND FINLAND

There are about 650 Finnish working companies in Russia, and the main part of them is concentrated in the North-West and Central Federal Districts. The main sectors of the Russian economy, in which Finnish investors are presented, the following: wood processing ("Stora Enso", "UPK-Kymmene"), chemical industry ("Nokian Renkaat", "Teknos", "Tikkurila"), food production ("Valio", "Atria", "Fazer"), production of building construction and insulation materials ("Paroc"), housebuilding, industrial and road construction ("YIT", "SRV", "Lemminkäinen"), and an energetic sector ("Fortum").

Nokian Renkaat launched a plant in Vsevolozhsk in 2005, - "Nokian Tyres".

Tikkurila gained leading position on Russian market already in 2006. About half of the Tikkurila's production facilities are located in Russia: it has four factories there. 75% of upstream material is imported, about 50% is from the local suppliers. Market share was 17% in Russia in 2012, Russia accounted for 32% of Tikkurila Group's revenue. Tikkurila is targeting to countries of East Europe as well. (Tikkurila. 2015)

There are about 2000 companies with Russian investments on Finnish market. Most of them is concentrated in the consulting sphere, trade, tourism, transport and logistics. (Russian Embassy in Finland)

Cooperation in investment is one of the priority guidelines in bilateral trade and economic relations between Russia and Finland. Finland is not among the biggest investment countries that are working with Russia, but it is the most important foreign investor in the energetic and forest-based sector. Finnish investors have already gained long-term experience of collaborative work with Russian partners, they know all the opportunities and requirements of the Russian market, Russian regional features.

As to the geographic focus, the bulk of accumulated investments from Finland are on the North-West region of Russia. This is the most dynamic developing Russian region. This region is the closest to Finland and, thereof, to the already acquired markets by Finnish firms.

As for the volume of accumulated Finnish investments in the Russian economy, the priority areas are: wood processing, manufacturing wooden products, pulp and paper production, publishing and typesetting, manufacturing of rubber and plastic products, construction, wholesale and retail trade, food production.

The Finnish investors' main areas of operations are still European countries - 80% of all accumulated Finnish investments, USA and Canada - 6,7%. Finnish investments in both Japan and China together are slightly less than in Russia: 2,2% and 2,7% respectively. (Ministry of Economic Development of the Russian Federation. 2014)

According to the Russian Central Bank, the volume of accumulated direct investments from Finland to Russian economy was 3,14 billion US dollars - 0,9% of total volume of foreign accumulated direct investments in Russian economy (January, 2015). A massive outflow of Finnish investments in amount of 334 billion US dollars was in 2014.

The Russian accumulated direct investments to the Finnish economy increased by 144 mln. US dollars in 2014. (Russian Embassy in Finland)

#### 4.1 Trade between Russia and Finland

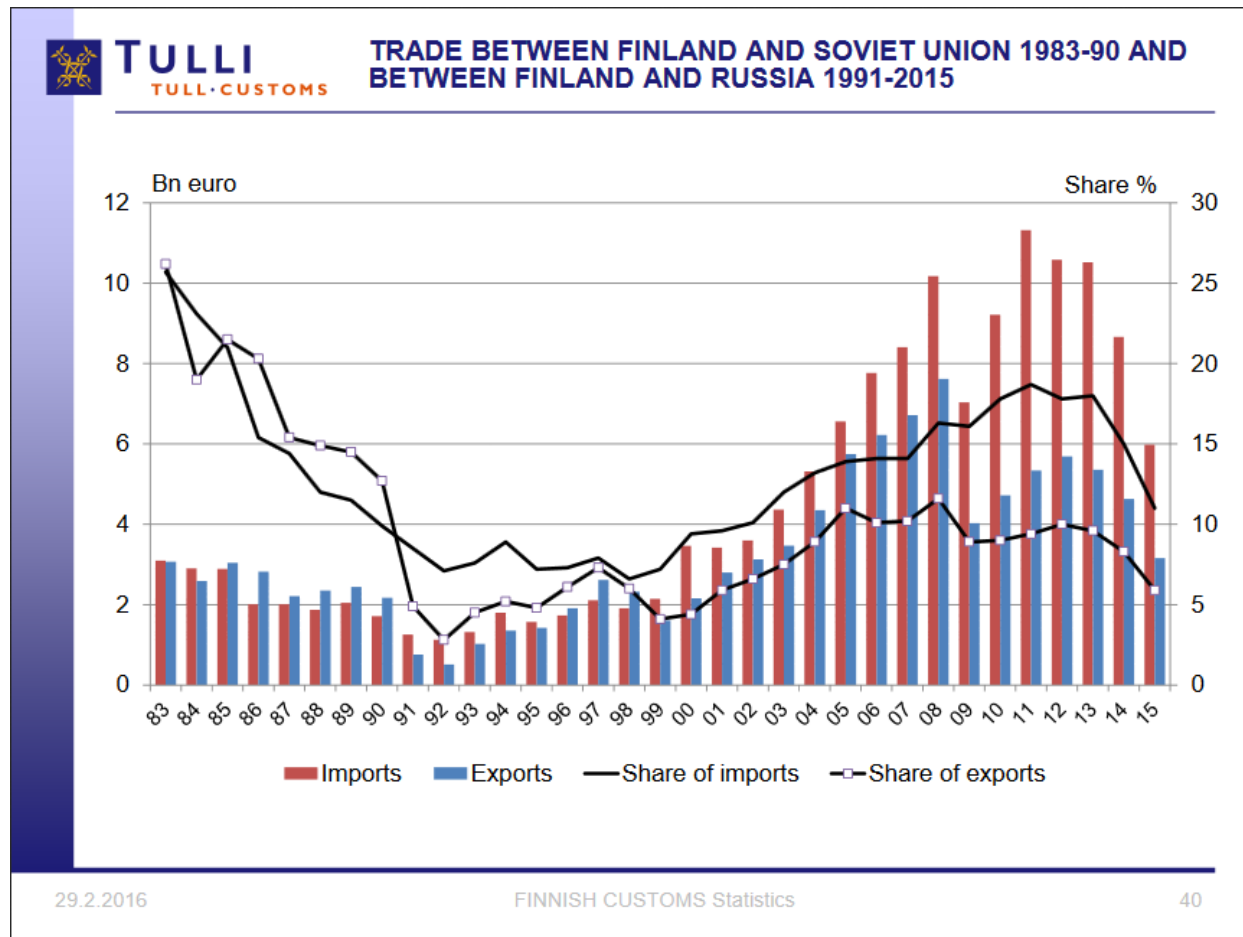


FIGURE 1. Trade between Finland and Soviet Union 1983-90 and between Finland and Russia 1991-2015. Finnish customs.

Trade between countries had been growing steady during long period, but only in recent years it decreased, which was caused by imposed economic sanctions between EU and Russia. (see figure 1)

As of year-end 2014, Russia was on the second place in the list of trade Finnish partners. Previously it took the first place and third place in 2015. (Russian Embassy in Finland; Finnish customs. 2016)

According to the list of importers of Finnish products, The Russian Federation took the third place in 2014 (8,3%) after Germany (12,0%) and Sweden (11,1%).

The structure of Finnish exports to Russia in 2014 was formed by machinery, equipment and transport (36,3%), chemical industry (20,4%), paper and cardboard (10,6%),



foodstuffs and agricultural raw materials (6.5%). (Russian Embassy in Finland.) As of year-end 2015, it slightly changed. (see Figure 2).

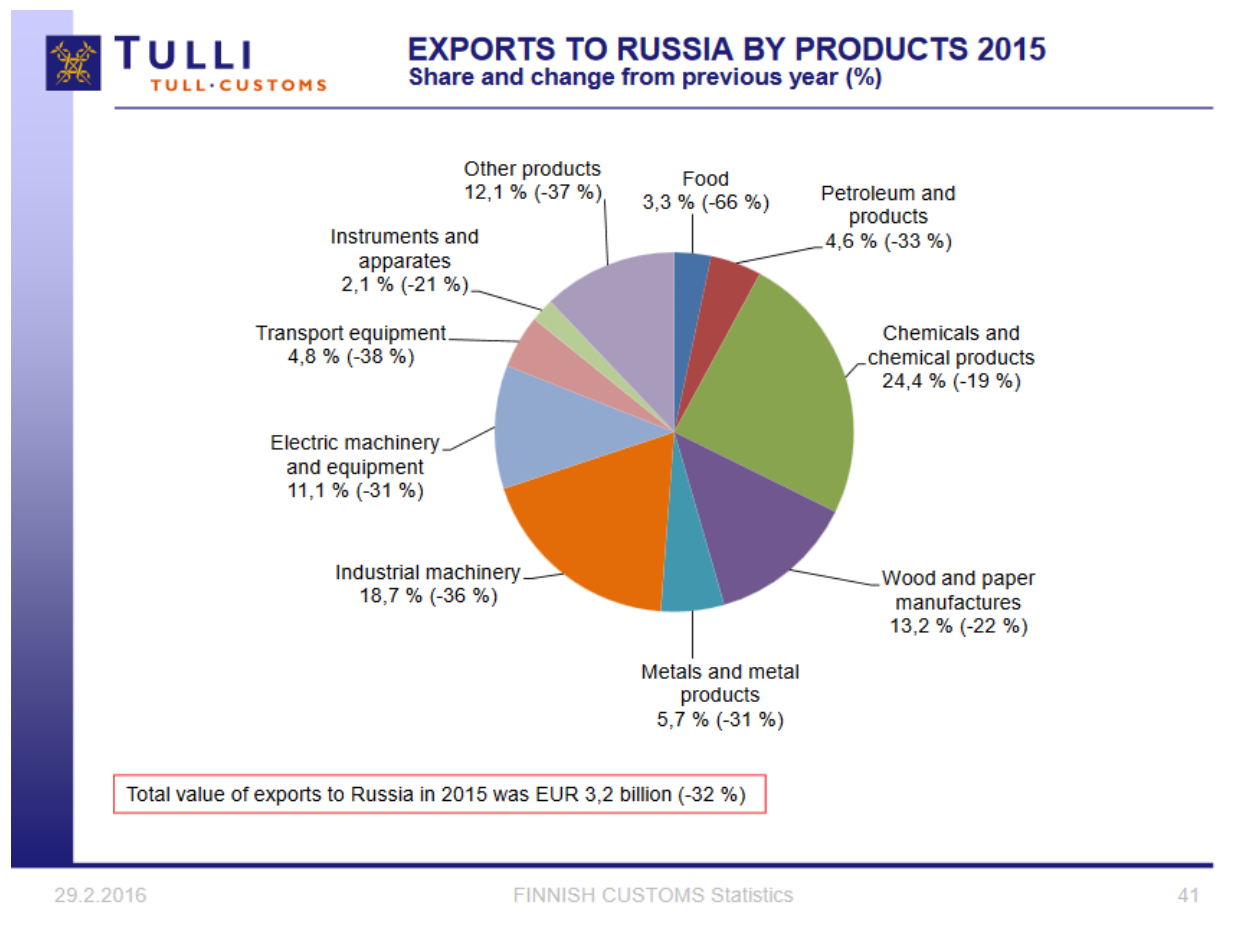


FIGURE 2. Exports to Russia by products 2015. Share and change from previous year (%). Finnish customs.

In the structure of the Russian export to Finland in 2015 the biggest part was petroleum and its products – 58 %, gas accounted for 10,4 %, chemicals and chemical products – 11%, metals – 3%. (Finnish customs. 2016)

The foreground of Russian-Finnish economic cooperation includes machine engineering (energetical, for shipbuilding, automotive industry, for pulp and paper industry), bioengineering, pharmaceuticals industry, medical industry (optoelectronics etc.), ships construction and marine facilities. All of these lines of cooperation involve industrial co-working and localization of production research centers in Russia. (Trade Representation of the Russian Federation in Finland. 2015)

## 4.2 The logistic facilities and main logistical itineraries between Finland and Russia

The Finnish-Russian border, being also the eastern border of the European Union, predetermines the further internalization of transportation of goods and passengers via the territory of Finland, which connects the EU with the CIS countries, the Far East region, South and South-East Asia. In recent years the transshipment cargo has played a significant role in the development of transport and logistics in Finland and has had a positive impact on strengthening of trade-economic relations between Russia and Finland.

The great economic potential of Russia and Finland, their territorial proximity, traditional intercommunication, including regional cooperation, the same size of a railroad track create favourable prerequisites for the onward growth of cargo-carrying communications between these countries.

Cargo transit through Finland to Russia is stable due to flexibility, operational efficiency and safety of shipments through the territory of Finland, as well as the efficiency of work of Finnish ports and the logistics system in whole. Experts estimate that up to 25% of imports in Russia are routed through Finland. (Trade Representation of the Russian Federation in Finland. 2012)

Special aspects of the transport and logistics market in Finland include the transit location of the country in transportation of cargo and passengers between the East and West (see Figure 3); economic dependence on foreign trade; long haulage distance; relatively low intensity of traffic flows in comparison with other European countries.

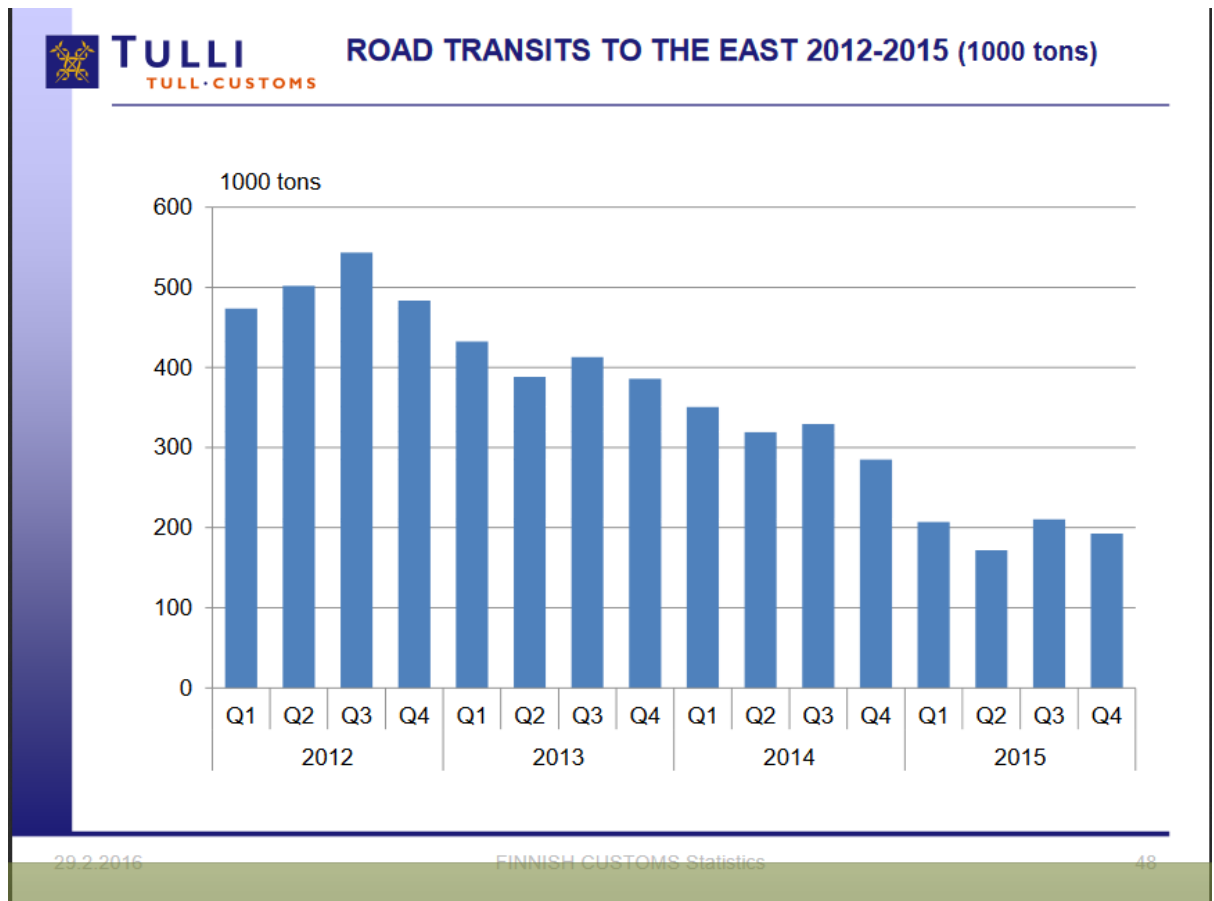


FIGURE 3. Road transit from Finland to the East 2012-2015. Finnish customs.

The Government of Finland puts a greater emphasis on its transportation hubs. In that context the project of the European Union - «Trans-European Transport Network», (TEN) arouses a substantial interest. South-West Finland and the Turku region play unique role in it as an important chain in "Nordic Triangle traffic corridor", which connects Helsinki, Copenhagen and Oslo with Saint Petersburg and the main logistics centres in Europe.

The E18 route is under development project. It is a section of a railway between Turku and the Vainikkala station on the border with the Leningrad region. Transport corridors, which connect EU Baltic States with the Central and Eastern Europe are also under development project. The project of a new road Copenhagen-Turku-Helsinki-Kotka-Vaalimaa (Torfyanovka)-Saint Petersburg is advantageous. This route crosses the South-West of Finland – one of the most economically developed regions of the country, which possesses a significant transport and logistics, industrial and innovative potential. Thus, this region holds a specific place in ensuring a passenger and cargo flow in the East-West-East direction.

In recent years Russia and Finland undertake measures to reduce transport costs, primarily by improving the interoperability of different means of transport, efficiency upgrading of a transport market and using information technologies. Since 2011 the cooperation in the

field of intelligent transport systems and information technologies has been carried on between the Ministries of Transport of Russia and Finland. One of the co-projects includes an intelligent transport corridor Helsinki-St.Petersburg. (The Trade Representation of the Russian Federation in Finland. 2012)

One of the focus areas of the Russian-Finnish economic cooperation is transport and logistical securing of bilateral trade and international through traffic: road construction, terminals, wayside infrastructure. Other focus area is projects concerning the development of transport corridors such as Trans-Siberian railway, the Northern Sea route. Cross-border traffic and border infrastructure is also under development and monitoring by Intergovernmental Russian-Finnish Commission. (Trade Representation of the Russian Federation in Finland. 2015)

For Russia the focus area is integration in the global transport system and realization of the through traffic potential of the Russian economy. Russia is aiming at improving competitiveness and attractiveness of the Russian transport corridors, and planning to redirect the trade flows between Europe and Asia to Russian transit routes. The connection of Russian transport corridors with transport systems of neighboring countries is also for the benefit of Russia.

Deepening integration with the global economy can be reached by creating the strong infrastructure connections with markets in Europe and the Asia-Pacific region through a system of international transport, in particular the Pan-European transport corridors and Euro-Asian transport corridors and, in the future, - through the Northern Sea Route. (Concept of long-term socio-economic development of the Russian Federation. 2008, part 5)

Cargo shipments between Russia and Finland are possible by almost all means of transport. The choice of international transport method has a direct impact on price, speed of delivery and risk of loss and damage. The various transport modes entail different forms of customs clearance.

### **Road transport**

The main destinations of international carriage of goods by Finnish roads are such countries as Sweden, Russia, Norway, Germany and Denmark. The share of Russian carriers in Finnish exports and through traffic towards the east direction amounts to about 85%. (Trade Representation of the Russian Federation in Finland. 2012)

### **Rail transportation**

The railroad truck's width coincides with the Russian one – 1524 mm.

The main commodities groups in the rail transport in Finland include forest products, wood industry products, products of petrochemical and metal industries.

Over the last years the cooperation between the concern "VR-Group" and "Russian Railways" has been being actively developed. In 2009 JSC "Freight One Scandinavia" was established - the joint venture of the concern "VR-Group" and "Russian Railways". The company is organising transportation of goods for commercial enterprises.

### **Water transport**

The annual volume of foreign trade cargo transportation by water transport in Finland reaches about 100 million tons, of which the share of Russian-Finnish traffic is approximately 15%.

The total amount of Finnish ports that also provide services for foreign trade is 49. The first-rate by flow of cargo among Finnish ports are the united port of Kotka-Hamina, ports of Helsinki, Kilpilahti, Rauma, Naantali and Vuosaari. The container terminal of the port Kotka-Hamina has a 15-meter fairway, which makes intensive shipping communications possible with Europe and the rest of the world.

In recent years the density of freight traffic on the Saimaa canal remains stable and amounts to 2 million tons per year. (Trade Representation of the Russian Federation in Finland. 2012)

### **Air transport**

There are 25 airports in Finland which ensure passenger air services. The annual density of air freight traffic and post-carrying traffic is about 160 thousand tonnes. (Trade Representation of the Russian Federation in Finland. 2012)

## CONCLUSION

Finnish companies doing or outsourcing manufacturing business in Russia may have almost all the advantages and disadvantages which were distinguished above. An undeniable advantage is geographical proximity of countries which may help to shorten deliveries and save shipping cost. Additionally, there are perfect logistic itineraries between Russia and Finland and transport corridors both in Russia and Finland, which give access to any place in the world by any means of transport. Competition between Russian and foreign companies comparatively weak, because of undeveloped economic environment, where Russian enterprises do not have advantages.

On the other hand, Russian customs rules, bureaucratic inflexibility, complicated financial matters, undeveloped economic environment, poor penetration of modern industry standards, lagging technology and quality system management and, also, the rough roads may put companies at a disadvantage. Taking these factors into consideration, a Finnish company may need to invest much in production facilities or establish a subsidiary in Russia, which is more risky than outsourcing from independent foreign company. Non-investment subcontracting may involve far lower cost and commitment and it is faster to implement.

Many Finnish companies working in Russia have good revenues and sales at local market. At the same time, there are only a few companies from Finland practising toll manufacturing in Russia, so it is difficult to evaluate performance and outcome yet.

It would be a good idea for Finnish companies to favor Russia as an alternative to China and reconsider their location. Working in Russia would be easier taking into account comparatively similar cultures, a long history of intercommunication between neighbouring countries, stable economic relations between them, sharing experience of other Finnish companies which present on the Russian market. Finnish companies currently invest more in Russia than in China, as previously noted.

Ordering customers may find better managerial solutions for optimising business, reducing costs, increasing profits and expand markets, and, if domestic sources remain more expensive than foreign, the Russian market is opened for them. Russian monotowns or special economic zones in Russia would be perfect places where to start. Placing orders, the hiring firms contribute to processing economy (increase in GDP, taxes, etc.), provide employment (especially for women and youth). At the same time, they contribute to economy of their residence, because the taxes from their profit are usually paid at place of the company's residence or main activity.

Russia supports export orientation of business, establishment production of finished goods with foreign participation in Russia. It promotes also creating the infrastructure connections with markets in Europe and the Asia-Pacific region. (Concept of long-term socio-economic development of the Russian Federation. 2008, part 5)

Considering that the Finnish companies may bring for processing to Russia raw materials and components for high-tech industry, communication facilities, electronics, or automotive industry, or machinery, or chemistry industry, it would be the effective method of modernization of respective spheres and, also, integration into Russian economy. Chemical industry, foodstuffs industries, machinery manufacture and production of different kinds of vehicles, crafts are in steady development in Russia, and their production capacities are not fully used.

Coming developed contract manufacturers to Russia can reduce the technological gap in the production of high-tech products in the electronic sector, and, alongside with that, they can involve Russian developers, designers or Russian inventions and engineering, which will bring mutual benefits. Russian developers and designers – country's strengths, they currently are restrained by existing, often obsolete technologies and element base. This will allow to combine the strength of traditional Russian ingenuity and the basic science with modern industrial technologies of serial production of a given quality.

The presence in Russia the world-class contract manufacturers is able to give a strong impetus to the development of the respective segments of the industry, especially the Russian high-tech industry.

Most likely, Finnish companies will face difficulties, risks and obstacles at Russian market, which were mentioned above, they will put much effort, especially, acting as first movers, like PKC Group Oyj. On the other hand, those who does not afraid to break new ground and accept challenges will gain first-mover advantage and future success.

They may utilize not only the idle production capacities, but, also, gain the all advantages of the untapped Russian market potential especially in case if production and further distribution will be targeted for consumption within Russia or CIS countries. Certainly, there will be demand for world class products on the Russian unsaturated market, especially if disposable income grows. Russians prefer quality products. Considering that there are many car factories on Russian territory, the products for automotive industry also may be sold effectively. It might be to Finnish companies advantage to locate close to customers.

Russian legislation provides other preferential customs procedure for that – “processing for domestic consumption”: materials are imported to Russia, processed and released for free circulation in Russia. A combination of different methods of operations may also be a considerable advantage.



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FIGURE 2. Exports to Russia by products 2015. Share and change from previous year (%). Finnish customs. Finnish foreign trade 2015. Figures and diagrams.



FIGURE 3. Road transit from Finland to the East 2012-2015. Finnish customs. Finnish foreign trade 2015. Figures and diagrams. [web publication]. 29 February 2016. [accessed 10 March 2016]. Available from:

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