This expert report has been prepared by Economic Research Institute at the Bulgarian Academy of Sciences, in connection with the initiative of the President of the Republic and the Embassy of Japan for a Bulgaria-Japan Business Meeting on February 5th, 2020. It presents an analysis and assessment of the opportunities and prospects for Japan’s investments in Bulgaria, in particular:

- Main trends in Japan’s investments in the EU Member States from Central and South-Eastern Europe (CSEE) are studied and outlined to identify the specifics of Japan’s investments abroad by countries, sectors, productions, forms, in which they invest. In this way, a targeted approach is introduced, tailored to the specifics of these investments.

- A historical overview is presented – the successes of trade and economic cooperation in the area of investments, in order to outline how the good practices and experiences in the past would support future investments from Japan in Bulgaria.

- A critical review of the comparative advantages of investing in Bulgaria is presented along with an identification of those, that are important to Japanese investors.

- Studied is the current European regulatory framework for foreign investments in order to identify the opportunities and policies that could support Japanese investors in Bulgaria as an EU Member State.

-Outlined are important strategic priorities of the Bulgarian economy in regard to the development of innovations, information technologies and green economy, in order to direct the interest of Japanese investors towards them.

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Identified are the opportunities for using the local raw materials through Japanese investments in Bulgaria, as well as the potential for waste processing and circular economy.

Determined are sectors and productions where the capacity and interest of the Japanese investors coincide with the opportunities and advantages of the Bulgarian economy.

Identified are economic sectors and productions of mutual interest to Japanese investors and Bulgarian business.

Attracting investments from Japan would have a significant national economic effect in implementing the strategic long-term priorities of the country. For the Bulgarian business, this would expand the economic space to high technologies and partnerships with Japanese companies and the access of Bulgarian goods to the Japanese market. For the Japanese economy and investors, expanding the economic space to Bulgaria would have a strong positive effect, including increasing their presence on the EU markets.

JEL: O23; O24; O25; O53

I. JAPAN’S INVESTMENTS IN CENTRAL AND SOUTH-EASTERN EUROPEAN COUNTRIES

1. Japan’s direct investments in European Union Member States

- EU-Japan Economic Partnership Agreement (since February 2019) provides wide opportunities for expanding the trade and investment relations between the EU and Japan, and in particular for the growth of the investment relations between Japan and Central and South-Eastern Europe, particular Bulgaria.

- In 2018, mergers and acquisitions of European companies by Japanese companies increased in number and value. Japanese companies have free funds (estimated at 800 billion EUR), which suggests that they will continue to expand the investments abroad, provided the economic and political environment is favourable.

- Japanese investors are interested in innovative productions, their focus of importance being particularly on the political, institutional and macroeconomic stability of the country hosting the Japanese investments.

- Though the main destinations for Japan’s foreign direct investments (FDI) are the Western European EU Member States and Russia, in recent years, Japanese companies settle permanently in the countries of Central and South-Eastern Europe (CSEE) by investing in infrastructure projects and efficient productions. This highly stimulates the increase of the role of Bulgaria as an attractive investment destination for Japanese investors.

Attracting FDI from Japan has been for years, and continues to be, important for Bulgaria. The economic and investment relations between the two countries have developed with different intensity over the years, but the Japanese companies are preferred foreign investors in Bulgaria because of the quality and type of investments they do.
After 1979, Japanese companies have been increasing their investment activity abroad, thanks to the liberalization of the investment regime in Japan towards the search for natural resources to provide raw materials for the Japanese industry, especially metals needed for the development of electronics, fine mechanics and equipment. Japanese investors realize significant FDI also in high-tech and efficient productions.

Years ago, European companies faced trade barriers to exports to Japan, which hindered their competitiveness. As a result of the EU-Japan Economic Partnership Agreement (since 01.02.2019), the trade barriers restricting the EU exports to Japan are lifted. The EU-Japan trade agreement removes the following restrictions for mutual trade: eliminates duties and other trade restrictions; introduces clear rules for cooperation in global trade and rejects the attempts to increase protectionism. Also in force is the EU-Japan Strategic Partnership Agreement, a bilateral framework agreement that increases partnership and provides a common framework for improving political and sectoral cooperation, as well as for joint actions to overcome the regional and global political and economic shocks and challenges.

The EU-Japan Strategic Arrangement (as of 01.02.2019) gives Japan the opportunity to operate in a single open economic space, which consists of 1/3 of the world economy. More than 90% of the EU exports to Japan are duty-free, and with the full implementation of the Agreement, 97% of the European goods will freely enter Japan. Annually, EU companies export to Japan goods for nearly 70 billion EUR and services for 28 billion EUR. European Union is preferred FDI destination abroad for the Japanese investors in order to enter the European Single Market. The accumulated FDI from Japan in the EU reach 300 billion EUR. The EU foreign direct investments in Japan are 1.6% of total FDI realized by EU-28 outside the EU, while Japan’s FDI in EU are 4.1% of its total FDI. Negotiations between the EU and Japan continue for the resolving of disputes over standards and investment protection. The goal of both the EU and Japan is to converge the positions on mutual

10 The change in the regulatory regime of Japan, i.e. The Foreign Trade Control Law, the Foreign Capital Law, which have limited the expansion of Japanese companies abroad, contributes to the Japanese companies entering the markets abroad.

investment protection and to create a stable and secure investment environment in Europe and Japan.

Japan’s FDI in Europe, Eastern Europe and Western Europe, 2010-2018 (million USD)

Since 2010, Japan’s direct investments in Europe have increased, and the main destinations of Japanese companies are the developed economies in Western Europe. In Eastern Europe Japan’s FDI register a smaller increase. Japan’s FDI are highest in Germany and the United Kingdom.

Main destinations of Japan’s FDI accumulated in Germany and the United Kingdom, 2010-2018 (million USD)

Among the Eastern European countries, the largest Japanese direct investments are realized in the EU Member States of Central Europe (Hungary, Poland, Czech Republic and Slovakia), which have significant economic potential and efficient productions, as well as in Russia, which is a source of energy and natural resources. The interest of Japanese investors in the CSEE region has increased since 2014.
2. Advantages of Central and Eastern European countries for the implementation of Japan’s FDI

For the Japanese investors, the CSEE countries have the following advantages: developed industrial base, qualified labour force, trained management staff, a favorable geostrategic economic position as part of the European Single Market, relatively well-established infrastructure – roads, railways, electrical powers, etc. The programs for FDI promotion that provide tax relief, duty-free import of equipment, employment incentives, advanced information and telecommunication relations and other benefits, as well as lower labour costs than in Western Europe, also encourage the Japanese investors to locate on the Central European markets. The labour costs per unit are lower in Bulgaria and Romania compared to those in the Central European countries (Hungary, Slovakia, Czech Republic, Poland).

3. Significant Japan’s direct investments in Central and South-Eastern European countries

Japan is Hungary’s main Asian investor and Hungary is Japan’s main investment destination in Europe in 2018 (IBM-PLI Global Location Trends 2019). As of 2019, in Hungary operate 170 Japanese companies with 35 000 employees. Japanese companies import in Hungary innovative technologies for the production of goods with medium and high added value and contribute to the development of the scientific research in the country. About 300 Japanese companies, with 40 000 employees, operate in Poland. About 1/3 of them are in the manufacturing sector – from machine-building and equipment to manufacture of food products and business services. Since 1993, in the Czech Republic are implemented 130 Japanese direct investment projects with a total value of over 5 billion
USD and are created 28 000 jobs. Offices, manufacturing plants, R&D equipment and facilities have been opened by 250 Japanese companies in this country. The goal of the Czech Republic is to attract Japanese direct investments in innovative productions, especially in productions with high added value like biotechnology, nanotechnology and ICT. As of January 2019, in Slovakia operate 64 Japanese companies. Japan provides substantial financing to Slovakia as grants (415 million JPY), technical cooperation (1.49 billion JPY), loans for construction of highway, large infrastructure projects (11.1 billion JPY). In Estonia operates MBK Co. Ltd., a Japanese trade bank, which participates in real estate trading in partnership with Estonian company BitOfProperty (BOP). The Japanese bank will work with the Estonian Cryptocurrency Stock Exchange Angoo Fintech. Japan focuses also on non-EU countries, supporting their transition to a market economy. Japan Bank for International Cooperation (JBIC) opens an investment fund in Serbia to support the development of the economic relations between the two countries. Japan expands its investment relations with Ukraine. Discussed are Japan’s FDI in infrastructure projects in Ukraine. Financial support of Japan to Ukraine amounts to 1.8 billion USD in 2014-2019.

A large part of Japan’s FDI for the CEE countries is in the manufacturing industry, in particular in transport equipment and electronics. The companies Toyota, Suzuki, Sumitomo, Panasonic, Sony, are located in Central Europe based on established joint ventures. Established are also joint ventures between Japanese companies and Western European companies, an example being the joint venture between Toyota and Peugeot, which jointly manufactures car parts in the Czech Republic.

The impression is that Japanese investors value the partnership in the respective country, which often results in the establishment of joint ventures with local firms or the country concerned. This policy creates further guarantees and a mutual interest for both Japanese investors and local businesses.

The main driver of Japan’s FDI in CEE is the search for investments to expand the markets for Japanese goods. Entering the CEE countries, Japanese companies gain access to the European Single Market, the markets of CIS, Mediterranean countries and the EFTA.

So far, the share of Japan’s investments in Bulgaria is smaller than in other CEE countries, but Bulgaria is commensurate with those countries in economic and institutional potential and is among the leaders by its macroeconomic stability. For Japanese investors, Bulgaria is also an opportunity for competitive entering on the European markets.

II. MACROECONOMIC ASPECTS OF THE INVESTMENT CLIMATE IN BULGARIA

Characteristics of the Bulgarian economy:
• sustainable growth rates;
• low inflation;
wages are lower than in the CEEC average;
• fixed exchange rate;
• high degree of openness of the economy;
• balanced budget and low taxes;
• low debt levels;
• favourable investment climate.

1. Gross Domestic Product

Economic growth is relatively high, but in itself, it is not sufficient to catch up the EU high standards. In order to achieve these results, it is also necessary to attract large investors from abroad.

According to the estimation by the Economic Research Institute at the Bulgarian Academy of Sciences, in the next three years, economic growth will remain at the levels of about 3-3.5%. Domestic demand will remain a leading factor for the GDP growth in terms of both consumption and investments. At the same time, final consumption growth is expected to slow down as a result of lower public consumption and a slowdown in private consumption growth, due to the exhaustion of the opportunities of employment growth. On the other hand, the increase in investments is expected to accelerate, supported mainly by public and foreign investments.

![REAL GDP GROWTH(%)](chart.png)

Source: IMF, World Economic Outlook.

Economic growth rates are above the EU average, but there is a slight lag behind the CEEC countries. The lag is not significant and could be overcome with a targeted government policy for accelerating economic growth. Attracting FDI is an important element of such a policy. The increase of wages and the improved household expectations have a positive impact on private consumption. Growth in consumption in the public sector increases, reflecting mainly the increase in costs for personnel and maintenance. Investments slowly
recover, but net exports, which have been a main driver of growth until recently, have already a negative contribution to the total growth. This is due both to a slowdown in export growth and stronger domestic demand, which has affected import volumes, including imports of consumer goods. The trend of recent years towards closing the gap between actual and potential GDP has continued.

2. Inflation

Inflation is under control and in line with global trends. Under a currency board arrangement and a stable fiscal position, the inflation will not be a problem in the country’s accession to ERM II.

Annual inflation in 2019 has increased slightly compared to the reported one at the end of 2018, and is likely to remain at 2.5-3% in the coming years. The increase in the prices of services and food contributes most to the total inflation. Goods and services with administratively set prices, as well as tobacco products, also have a small positive contribution, while energy products have a negative contribution to the total inflation due to the drop of the international oil prices in EUR on an annual basis.

![INFLATION (CPI, PERIOD AVG.)](chart)

*Source: IMF, World Economic Outlook.*

Despite the increasing inflation pressure, there is no reason for concern. The core inflation has increased but remains low. There is no reason to look for a direct relation between the increase of the average wage and the inflation. The latter reflects rather the output gap between potential and real GDP.

3. Exchange rate and foreign reserves

The currency board arrangement remains a factor of stability. Monetary base coverage with reserves amounts to more than 150% (the required minimum level of coverage is 100%), which certifies the stability of the currency board. The commitment to maintain the
currency board arrangement at the current level of the fixed exchange rate until the country’s accession to the euro area is always present in the program of all governments and is supported by all political parties in the Parliament.

![Exchange Rate and Foreign Reserves Chart]

Source: Bulgarian National Bank.

4. Labour market

The labor market has a steady decrease in unemployment.

Wages are lower than in the CEEC average levels, and this is not at the expense of the quality of the manufactured production, but rather to the lower price level in the economy. This creates serious advantages for potential investors. Undoubtedly, both price levels and wages move towards catching up with the EU levels, but the process of full alignment will take decades. Providing decent payment requires parallel processes of increasing productivity, investing in the real sector, and intensifying the productions towards intelligent growth.

![Unemployment Rate Chart]

Source: IMF, World Economic Outlook.
Policies to improve the knowledge, skills and competences of the current workforce are central to employment dynamics; preparing young people for work in our education system; for efficient activation of the inactive and participation in the labour market.

![Minimum Wage Chart](image1)

**Source:** IMF, *World Economic Outlook.*

![Average Wage Chart](image2)

**Source:** IMF, *World Economic Outlook.*

5. **External sector**

The role of the external sector as a significant factor of growth in recent years alternates with domestic consumption. In the long run, we expect a steady trend towards a leading role of the external sector, based on the exports of goods with medium and high value-added.

The export structure, established in recent years, shows that Bulgaria remains an exporter mainly of goods with a low level of processing, hence with low value-added. About 40% of
exports are raw materials. With the current export structure, Bulgaria cannot rely on lasting competitive advantages to ensure the sustainable development of a strategy of an export-oriented economic growth. **A possible way out of this situation is the local use of these raw materials. From this point of view, attracting FDI and creating new productions are of huge significance.**

The import structure shows a high dependence of the Bulgarian productions on imported raw materials. The imported raw materials exceed 35% of the total commodity imports, accompanied by high import intensity of exports. Thus, foreign trade leads to a wide openness of the Bulgarian economy, which in turn defines the foreign trade as a strong transmission mechanism for transferring the international economic environment to the Bulgarian economy.

6. Fiscal sector

Stability of the fiscal sector stands out as the most significant advantage of the economy. The balanced budget and the low public debt allow for enhanced government support for large investment projects. The size and structure of the public debt are among the most significant advantages of the Bulgarian economy.

<table>
<thead>
<tr>
<th>Year</th>
<th>Bulgaria</th>
<th>CEEC average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2011</td>
<td>2012</td>
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<td>2013</td>
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<td>2019</td>
<td>2020</td>
<td>2021</td>
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<tr>
<td>2022</td>
<td>2023</td>
<td>2024</td>
</tr>
</tbody>
</table>

Source: Ministry of Finances and websites of the relevant agencies.
The improvement in tax revenue collection, observed in recent years, provides an opportunity to maintain low levels of effective tax rates, which are the lowest in the EU and one of the lowest in the world.

Bulgaria has considerable “fiscal space” to use. To encourage investments in the country, the government is committed to implement an active economic policy, including to undertake state guarantees for structurally defining investments. Maintaining a balanced budget and low public debt levels is a priority policy.

7. Financial sector

The financial system is based on the principles of the currency board and excludes the use of monetary instruments. In the short and medium-term, the fixed exchange rate provides stability. In the medium term, the country is expected to become a full-fledged member of the euro area.

The consolidation processes in the banking sector continue; the profit in the system increases; and the monetary statistics shows that credit activity increases for the second consecutive year.

III. REGULATORY CONDITIONS FOR INVESTMENT IN BULGARIA

1. Positive aspects of the legislation and the policies in place

Bulgaria pursues an investment policy in accordance with the commitments of the country as a member of the EU and the WTO, in full compliance with the international agreements under specific agreements with individual countries and integration communities. In this context, for Bulgaria, as an EU member, the EU-Japan Economic Partnership Agreement (EPA) and the EU-Japan Strategic Partnership Agreement (SPA) create favourable political and legal premises for the development of economic exchange and investments with Japan.11

Bulgarian investment legislation is based on the principle of equal treatment of Bulgarian and foreign entities and guarantees that investors are treated equally, regardless of their nationality. There are restrictions on economic activities of foreign entities in specific sectors and activities (e.g. gambling, tobacco processing, medical research). The realization of an economic activity in Bulgaria does not require mandatory registration of the foreign investor as a trader, except in certain sectors with an introduced licensing regime. At the same time, there is no restriction on the amount of foreign participation in the registered in Bulgaria forms of economic and investment activity.

Investment Promotion Act (IPA) and its Implementing Regulations (IRIPA) introduce a system of incentives for investment in fixed tangible and intangible assets and the related new jobs, in accordance with Regulation № 651/2014 of the European Commission. Realistically assessing the current economic challenges, with the Investment Promotion Act and its Implementing Regulations, Bulgaria implements a policy of:

- Increasing investments in technological development in productions and services with high added value and creating new high-performance jobs;
- Reducing regional disparities in social-economic development;
- Integrated counteracting to negative trends in the investment activity and employment, resulting from the restructuring processes of the European and global economy over the last decade.

According to the Investment Promotion Act and its Implementing Regulations, for the promotion of investments in specific industries, investment certification approach is applied. Depending on the size of the investment, the economic industry and the region of the country where it is realized, the investor can receive a certificate for class of investment (“class A” and “class B”) or a certificate for priority project.

Table 1

<table>
<thead>
<tr>
<th>Measures to promote investments subject to certification</th>
<th>Class Priority</th>
<th>Class A 100 million BGN 50-150 jobs</th>
<th>Class A 10 million BGN 25-150 jobs</th>
<th>Class B 1.5 million BGN 10-100 jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced administrative procedures</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>No public tenders – no competition</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Financial support for vocational training</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Reimbursement of social security costs</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Services for individual partners</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financing the construction of technical infrastructure</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public-Private Partnerships</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>No taxes when changing land status</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition of land at lower prices</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and development subsidies</td>
<td>✔️</td>
<td></td>
<td></td>
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</tbody>
</table>

*Source: Ministry of Economy of Republic of Bulgaria, 2019.*

Investments that can receive a certificate for class are investments in fixed tangible and intangible assets and the related new jobs, which cumulatively meet the following conditions:

- They are related to the creation of a new enterprise or the expansion of an existing enterprise/activity.
They are realized in any of the following economic activities: from the industrial sector – manufacturing; from the service sector – high-tech activities in information technologies and services, R&D and professional activities in central offices, education, human health care and medical-social care with accommodation, cargo storage and supporting transport activities.

The income from the investment project is at least 80% of the total income of the enterprise.

The investment continues for at least 5 years, and for small and medium-sized enterprises – 3 years.

The term for completion of the investment is up to 3 years.

The investment in one site is not below the minimum amount of 20 million BGN for class A and 10 million BGN for class B. This threshold may be reduced for investments in economically disadvantaged regions, as well as for investments in high-tech activities in the industrial sector of the economy and in the service sector.

At least 40% of the eligible costs are financed through own resources or through external funding in a form that excludes public support.

The investment creates and maintains employment directly related to the implementation of the investment project, representing a net increase in the number of employees in the enterprise, maintained for a minimum period of 5 years for a large enterprise (3 years for SME).

The acquired assets are new and purchased on market terms by entities independent of the investor.

Investments with a certificate for class are encouraged to complete the investment project through:

- Reduced deadlines for administrative service (for class A and B);

- Individual administrative service (for class A);

- Possibility to acquire property rights or restricted real property rights under preferential conditions (for class A and B);

- Financial support for the creation of elements of the technical infrastructure (for class A and two or more investment projects for class B);

- Financial support for training for the acquisition of vocational qualifications of people who have occupied the new investment-related jobs (class A and B).

Bulgaria actively promotes investments in all industries through the implementation of the legal framework for certification of investments for class A and B, as well as priority investment projects. These include investment projects that can be realized in any sector of the economy, are significant for the economic development of the country or its regions, and meet the requirements set in the Investment Promotion Act, such as:
1. The size of their investments exceeds at least 3 times the minimum size under Art. 12, para. 2, item 5 for class A, determined in the implementing regulations of the law.

2. They create employment within the meaning of Art. 12, para. 2, item 7 through investments in disadvantaged regions or in high-tech activities, the minimum number of employees of which is determined in the implementing regulation of the law.

3. They engage with the construction of industrial zones with the necessary technical infrastructure for attracting investments under the conditions and procedures determined in the implementing regulations of the law.

4. They engage with the construction of tech parks with the necessary technical infrastructure to attract investments in research and/or education, and/or information technology, including innovative activities for technological renewal of manufactured products and technologies under the terms and procedures determined in the implementing regulations of the law.

Priority investment projects can benefit from all promotion measures provided for investments with a certificate for class, as well as from the following measures:

- Transfer or incorporation of limited real property rights from state and municipal companies at prices below the market price;

- Financial grants for investments in education and research and investments in manufacturing;

- Institutional support and public-private partnership;

- Reduced terms for administrative services provided by the municipality where the investment is realized;

- Individual administrative services provided by the municipality where the investment is realized.

The promotion of priority investment projects is done under the conditions and procedures determined in the implementing regulations of the law, in accordance with Regulation (EU) № 651/2014 as a state aid scheme and/or in accordance with the requirements of the State Aid Act, Art. 22g. (New – SG, No. 41/2009).

Bulgaria implements state aid in accordance with Regulation (EU) № 651/2014. Fully in line with EU legislation for investment promotion, Bulgaria may apply aid schemes in the form of advantages, and in the future they are subject to a special condition for promotion effect, given that this type of aid is granted in accordance with EU state aid procedures that are different from those of other aid categories. For the assessment of the promotion effect of these schemes, the moment when the measure is first included in the original scheme is crucial.

Investments can be promoted also by regional operational aid, regional aid for urban development, aid to SMEs for access to finance, implemented in accordance with the requirements of Regulation (EU) № 651/2014, provided that the specific conditions set for these aid categories are fulfilled.
Table 2

Regional profile and smart specialization of investments in innovations in the Republic of Bulgaria for the period 2014-2019

<table>
<thead>
<tr>
<th>Northwestern region</th>
<th>Northcentral region</th>
<th>Northeastern region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechatronics and Clean Technology</td>
<td>Mechatronics and Clean Technology</td>
<td>Mechatronics and Clean Technology</td>
</tr>
<tr>
<td>Healthy Life and Biotechnology Industry</td>
<td>Healthy Life and Biotechnology Industry</td>
<td>Healthy Life and Biotechnology Industry</td>
</tr>
<tr>
<td>New technologies in the creative and recreational industries</td>
<td>Informatics and ICT</td>
<td>New technologies in the creative and recreational industries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Southwestern region</th>
<th>Southcentral region</th>
<th>Southeastern region</th>
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<tr>
<td>Informatics and ICT</td>
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<tr>
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</tr>
</tbody>
</table>


In line with EU requirements based on the Innovative Strategy for Smart Specialization (ISSS), Bulgaria meets the strategic goal of making a quality leap in its innovation performance at EU level to overcome the social challenges in the demographic field (reducing brain drain, attracting successful Bulgarians, promoting youth entrepreneurship), sustainable development, intellectual capital and the health of the nation. In this regard, the country’s investment policy is directed at achieving several goals:

- Focus on investments to develop innovation potential by regions and in the identified thematic areas for the creation and development of new technologies, leading to competitive advantages and increasing the added value of the national products and services;
- Support for increased use of technologies, methods and good practices that improve resource efficiency and the implementation of ICT in enterprises across the industry.

In the period 2014-2020, in innovation development are directed 1461.3 million EUR. As of mid-2019, the activated financial resource on ISSS amounts to 52.6% of the ISSS indicative budget (compared to 48.5% in the previous year). Funds focused on ISSS thematic areas amount to 414.1 million EUR provided as financial grants. Most funds are spent in the thematic areas “Mechatronics and Clean Technologies” (20.4%), “Informatics and ICT” (14.1%), “Healthy Life and Biotechnology Industry” (11.9%), and “New Technologies in the Creative and Recreational Industries” (7.5%).

The promotion of investments at the level of enterprises and regions with a state aid scheme in the form of grants is implemented in full compliance with the requirements of the EU law.
In addition, implemented is investment crediting by the Bulgarian Development Bank (BDB) under flexible agreement terms. BDB offers also syndication or external co-financing of the credit with other financial institutions, including the European Investment Bank (EIB) under the European Fund for Strategic Investments (EFSI). EFSI has provided an additional 20 million EUR to Bulgarian SMEs in the form of guarantees for the period 2017-2020.

National Guarantee Fund (NGF), as part of the Bulgarian Development Bank Group, has a mission to support the access to financing for Bulgarian SMEs. Through the mediation of 22 trade banks, NGF has supported more than 5000 companies to receive financing for over 600 million EUR. NGF implements also two guarantee financial instruments, co-financed by the Ministry of Agriculture, Food and Forestry, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund.

2. **Opportunities and prospects for development of the investment policy**

As an EU member state, Bulgaria commits to a policy of updating its investment regime in line with the choice of priorities of social-economic development. In 2019 the Government of the Republic of Bulgaria has presented for public consideration a National Development Program “Bulgaria 2030” on the basis of a serious analysis of the social-economic development of the country after its accession to the EU.

After extensive discussion with the social partners and stakeholders, National Development Program “Bulgaria 2030” shall enter into force on 20.01.2020 as a medium-term strategy for social-economic development of the country.12 In the interest of improving the business climate in the country, promoting convergence in the EU and protecting the interests of Bulgarian business and citizens, for achieving economic growth and prosperity, the following priority directions are outlined, focusing on:

- Improving competitiveness conditions, including through the promotion of investments in innovative development and stimulating the export of Bulgarian goods and services;
- Social partnership and active dialogue on the priorities in the development of the Bulgarian industry;13
- Developing a national strategy for Bulgaria’s place in Industry 4.0 and the Digital Single Market;
- Making R&D a top priority for Bulgaria by: promoting applied research; supporting R&D promotion and innovations in the enterprises, and investments in innovation and development infrastructure;


Strengthening policies for human resource development – education and training, lifelong learning and skills validation;

Introducing e-government so that the state can communicate with the business and citizens in a transparent, more effective and more efficient way by modernizing the business environment and more purposeful reduction of corruption.

The changes in the investment policy of Bulgaria can be outlined in three main directions, where the experience of Japan can be an important contribution to the mutual cooperation with Bulgaria, as follows:

- Strategic and operational planning of modern technological development, decarbonisation and development of circular and green economy and the corresponding updating of the conditions and incentives for investments provided to foreign investors from third countries outside the EU;
- Changes that update the regulations to promote entrepreneurship in high-tech industries and products and in SMEs, combined with their role at a regional level;
- Legislative changes for promotion of foreign investments in education, personnel qualification in certain fields and R&D with the involvement of BAS and the universities in the country.

In the context of a dynamically changing and uncertain international economic environment, the following opportunities exist for Bulgaria and Japan in the field of investment cooperation:

- Accelerating decision-making on strategic projects by improving the capacity of the ministries, departments and agencies in strategic planning. Of strategic interest to Bulgaria are the projects in railway transport, bio-agriculture, digitalisation of the economy, waste utilization and more. Their development and adoption with a state guarantee should make it possible to shorten pre-project studies to the technologically possible time of 1-1.5 years.
- Accelerating the transition to the circular economy is another main investment area for Bulgaria. Japan has accumulated experience in this area. In Bulgaria, the introduction of the Japanese experience can accelerate through targeted programs for the small and medium-sized companies to implement circular economy schemes that will really contribute to structural changes at the enterprise level. SMEs are an area where Bulgaria can explore the positive experience of some CEE countries, which actively change their investment regimes to attract foreign investments and regional development.
- Transition to the digital transformation of the industry and the service sector.
- Promoting innovations and competitiveness at the expense of national public funds and assimilation of EU funds.
- Promoting a qualified labour force through investments in education, training and retraining of the labour force.
• Promoting social economy, especially in view of the demographic crisis and the social problems of the rapidly transforming societies under the new conditions of international competition, economic and social inequalities.

In a global and European plan, concerning the attracting of foreign investment, there is a process of **differentiation of the investment regimes of the individual countries and regions in order to increase the selectivity** of the host countries of foreign investments with respect to national goals in certain sectors and activities.

Common criteria applied in changing the investment regimes include the priorities of innovative growth and rebalancing of the regional development of specific countries. Japan also focuses on this approach with its vision of attracting foreign investments and with its active policy of developing economic cooperation with the EU and other global partners.

3. **EU regulatory requirements for third-country investors and the opportunities they provide to the competitiveness of the Bulgarian legislation to attract investments, including from Japan**

Concerning the investment regime, Bulgaria, as an EU member state, has taken over EU policies in all main areas of structural changes in the economy that are open to trade and economic cooperation with third countries.

A favourable basis for mutual cooperation with Japan is the fact that, in accordance with the section on investments in the EU-Japan Strategic Partnership Agreement (SPA), the parties are envisaged to provide each other a Most Favored Nation (MFN) clause and to apply the principle of national treatment (NT) with regard to establishing and functioning of investors and investments (considered before and after the conclusion of the SPA). Bulgaria is interested in implementing a policy of deepening the economic cooperation with Japan on the basis of an update of the EU-Japan arrangements in the mutual relations for establishment of the standards for protection of investors and for the settlement of disputes concerning joint investments.

At the beginning of 2020, in the context of a dynamically changing and uncertain international economic environment, investment regimes of both EU and other third countries face some changes.

**First**, for Bulgaria, as an EU member state, it is important in its relations with third countries to comply with **Regulation (EU) 2019/452 of the European Parliament and of the Council on 19th March 2019 establishing a framework for screening of foreign direct investment in the Union**. The reason for adopting the regulation is that EU member states share the responsibility concerning new or already realized FDI for screening and monitoring of security risks created by foreign investments in assets, technologies and infrastructure of key significance. The new regulation should start on 10th October 2020 and apply to a wide range of foreign investments in EU member states, through which are established or maintained long-term and direct relations with investors from third countries, including government entities, and businesses operating in an EU Member State. However, this regulation **does not cover portfolio investments**. So far, the new framework for
screening and monitoring the foreign direct investments does not extend to EU investments in third countries. The new framework for screening the foreign investments at a supranational level includes new competences at EU level.

Currently, 14 member states (Austria, Denmark, Germany, Finland, France, Latvia, Lithuania, Hungary, Italy, the Netherlands, Poland, Portugal, Spain and the United Kingdom) have national FDI screening mechanisms that vary in design and scope. Bulgaria has no changes in its national security legislation and is involved in the creation of a cooperation mechanism, with which member states and the European Commission will be able to exchange information and set for discussion specific cases when an investment threatens the security or public order of several member states, or when an investment might affect a project or program of interest for the entire EU, such as “Horizon 2020” or “Galileo”.

Given that the EU is interested in promoting international investment cooperation, the arrangements with Japan under the Strategic Agreement that promote investments, including through the exchange of experience, best practices and information on issues of common interest, are to be implemented.

Undoubtedly, after the adoption of Regulation (EU) 2019/452 of the European Parliament and the Council on 19th March 2019, EU member states retain the final say as to whether or not the realization of a specific investment operation should be allowed on their territory.

Second, the European Green Deal, presented by the European Commission at the end of 2019, is considered a roadmap for the European Union with actions for more efficient use of resources by moving to a clean, circular economy and for halting the climate change, reversing the tendency to lose biodiversity, and reducing pollution. The European Green Deal covers all sectors of the economy, in particular transport, energy, agriculture, construction, and industries such as steel, cement, ICT, textiles and chemicals.

The resulting changes to the EU law and investment policy will respond to the biggest challenges of today (globalization and economic transformation in the conditions of climate changes, the transition to a low-carbon and circular economy, environmental challenges, migration and social problems of poverty and others).

At the core of the agreements with Japan, the EU has put the priorities for economic transformation, reflected also in the concepts development for the EU Multiannual Financial Framework for 2022-2027.

Achieving the goals of the European Green Deal will require significant investments. It is estimated that reaching the current climate and energy goals by 2030 will require 260 billion EUR additional investments annually, i.e. about 1.5% of GDP in 2018. These investments will require a mobilization of the public and private sector.

In the context of the global challenges to social-economic development, the new priorities will lead to a combination of rational choice for changes with a consistent policy of

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promoting investments. To this end, Bulgaria is interested in developing its relations with Japan, which may be contributed by the further improvement of the investment environment.

The brief presentation of the regulatory framework for attracting foreign investments in Bulgaria indicates that there is a desire to provide foreign investors with the best possible conditions.

In pursuit of the medium-term development goals by 2030, Bulgaria consistently strives to improve its investment and innovation policies. The country is ready to implement projects on the basis of achieved mutual interest with the specific foreign partners. In this regard, as an EU member state, Bulgaria, with its involvement in the assimilation of European programs and funds, provides new opportunities for cooperation in trade and investments in the context of the implementation of the EU-Japan Agreements.

IV. SHORT HISTORY OF SIGNIFICANT JAPANESE INVESTMENTS IN BULGARIA AFTER 1990

1. Implemented projects supported by the Government of Japan

*Loans from the Japan Bank for International Cooperation*\(^{15}\)

Along this line are granted 65.181 billion JPY (547.74 million USD). Bulgaria has received loans in JPY for the implementation of the following six projects:

- **Loan agreement for the construction of “Vitosha” Hotel (after the privatization “Zografski” Hotel, now “Marinela” Hotel) in Sofia**
  The loan is for 4.832 billion JPY, the notes are exchanged in 1975.

- **Loan agreement BG-P 2 for “Eliseina” EAD**
  The loan is for 2.081 million JPY and the notes are exchanged in 1995. The implementation of the project for ecological reconstruction of the enterprise is suspended in August 1999 due to financial difficulties of the enterprise. In May 2001, the entire amount spent is reimbursed to the bank.

- **Loan agreement BG-P 3 for KCM Ltd., Plovdiv**
  The loan is for 5.955 million JPY and the notes are exchanged in 1995. The loan is fully used and is paid back under the repayment schedule.

- **Loan agreement BG-P 4 for the extension of the port of Burgas**
  The total agreed loan amounts to 14.312 billion JPY and the notes are exchanged in 1998. The loan is fully used.

Loan agreement BG-P for the construction of a section (seventh-ninth station) of Sofia Metro

The loan is for 12.894 billion JPY and is fully used.

Export Credit between the Japan Bank for International Cooperation and the Republic of Bulgaria for the rehabilitation of “TPP Maritsa East 2” EAD

The total amount of the export credit is 25.107 billion JPY.

Financing for Bulgaria from the Japan Bank for International Cooperation through the World Bank

Along this line, in 1998 and 2000 are granted 11.9 billion JPY (100 million USD). This money is used to co-finance the implementation of two World Bank programs in the country. Financial Enterprise Sector Adjustment Loan (FESAL) I and II.

Financing from Japan Special Fund at International Financial Institutions

This fund has granted 625 million JPY (5.250 million USD).

Japan Special Fund at the Ministry of Finance, through international financial institutions such as the World Bank and others, has provided financial assistance to Bulgaria through two funds: Japan Social Development Fund (JSDF) and Policy and Human Resources Development Fund (PHRD).

Japan Social Development Fund has financed the implementation of the following projects:

Creating a social capital in disadvantaged small communities
On September 13th, 2001, Bulgaria and the World Bank signed a grant agreement for 370 000 USD. The goal of the project is to improve the welfare of the poorest communities.

Project for a protection of the disadvantaged children and people
On November 14th, 2001, Bulgaria and the World Bank signed a grant agreement for 1.05 million USD for orphans and disadvantaged people.

Policy and Human Resources Development Fund has supported financially the implementation of the following projects:

Preparation of FESAL III (PAL 1)
In June 2000, the World Bank grants 379 000 USD as a donation for the preparation of FESAL III (PAL 1).
• **Preparation of ASAL II**
In June 2000, the World Bank grants 470,100 USD as a donation for the preparation of ASAL II.

• **Project for Single Revenue Agency**
In 2001, Bulgaria receives a 0.3 million USD donation through the World Bank for increasing the revenue collection.

• **Preparation of project for development of the forestry sector**
On September 11th, 2002, the World Bank signs an agreement for 564,270 USD to be donated for the preparation of a project for development of the forestry sector in the country.

• **Pilot project on a transition from solid fuel to biomass use**
On March 20th, 2003, Bulgaria and the World Bank sign a donation agreement for 890,000 USD to fund a pilot project on the transition from solid fuel to biomass use in the heating systems of municipal buildings.

• **Project for sustainable use of geothermal resources**
On May 23rd, 2003, Bulgaria and the World Bank sign a donation agreement for 770,000 USD to promote the systematic use of geothermal resources.

• **Preparation of PAL 2 for reforms in the structure of the economy**
On September 4th, 2003, Bulgaria and the World Bank sign a donation agreement for 455,000 USD for the preparation of the second PAL loan. The goal of the project is to achieve democratic governance and prosperity of the community through implementation of administrative reform, fight against corruption and support of local self-government bodies.

*Technical cooperation*\(^{18}\)
Under this line, the granted support amounts to 9,207 billion JPY (86.047 million USD). The funds are used to receive postgraduate students from Bulgaria, to send Japanese specialists to Bulgaria, to provide Japanese volunteers for cooperation in Bulgaria, to develop technical cooperation projects, to provide equipment, to study the opportunities for development of projects.

Grants

In addition to investments and loans, Bulgaria receives significant grants from Japan for 1.876 billion JPY (15.189 million USD) for the support of the transition to a market economy and the establishment of democratic institutions.

Since 1998, Bulgaria has received grants for 1.170 million JPY under Japanese government programs for financing the implementation of projects at a local level. These are the following projects:

- Construction of a new water treatment plant in the village of Bistritsa for the needs of the capital (2000);
- Non-targeted grant in relation to the damages Bulgaria has suffered from the Kosovo conflict, for 500 million JPY in 1999;
- Grants for 37 projects at local level up to 2004, implemented by Bulgarian non-governmental and municipal administrations such as the Bulgarian Red Cross, Sliven Municipality, Dryanovo Municipality, Smolyan Municipality, Pavel Banya Municipality, etc., amounting to 151,760 million JPY;
- Emergency humanitarian aid for the purchase and supply of food for infants and starving children, as well as the distribution of food in social kitchens and schools. The donation is made through the International Red Cross and is worth 22 million JPY;
- Emergency material aid for about 10 million JPY to the people in distress from the flooded areas in Southern Bulgaria in August 2005.

From the brief presentation of the financed Bulgarian projects by Japan, it can be concluded that the Japanese state is interested in financing the implementation of projects in the port and underground infrastructure, ecology, energy, tourism. Japan has shown its interest in supporting Bulgaria’s development also by providing financial assistance to stabilize the economy and local and marginalized communities in the transition to a market economy. After our country’s accession to the EU, such projects cannot be supported by the Japanese state.

2. Private Japanese investments in Bulgaria

The largest Japanese investment in the financial sector is Tokuda Bank AD, which is part of the economic group Tokushukai Incorporated, Japan. The Bank was incorporated on December 27th, 1994 as a joint-stock company under the Law on Banks and the Commercial Law of the Republic of Bulgaria. The Bank is licensed to conduct banking activities in the country and operates successfully.

One of the largest hospitals in the country – Tokuda, opened in 2006, as part of the health group of the Japanese doctor and entrepreneur Dr. Torao Tokuda. In 2016 it was sold and became part of Acibadem City Clinic, a group of medical establishments in the country.

“Kaliakra Wind Power” wind farm near Kavarna operates since 01.07.2008. The investor of the wind farm is the joint-stock company “Kaliakra Wind Power”, which is owned by the Japanese concern “Mitsubishi Heavy Industries” and Bulgarian engineering company “INOS-1”. The Japanese side holds 70% and the Bulgarian side holds 30% of the company’s shares. The investment is worth around 55 million EUR, with 30% being financed by the shareholders and 70% by the Japan Bank for International Cooperation (JBIC) and Mizuho Bank as creditors.

The wind farm is located on an area of 2700 decares and is estimated to run at 2105 hours per year and produce 79,000 MWh energy per year.

In 2006, “Yazaki” started operating in Bulgaria through its “Yazaki Bulgaria” division, which opened its own plant in Yambol. In the following years, two more manufacturing plants were built – in Sliven and Dimitrovgrad. These enterprises manufacture cable equipment intended for world leaders in the automobile market.

Zen-Noh foods, as part of Japan Agri Products Europe, built a factory in Plovdiv, which started operating in April 2018. The factory produces six types of frozen sushi. The products are intended for other European countries, and in the future partners and retail chains will be searched to distribute the sushi in Bulgaria. It is made from two types of fish – salmon and mackerel, which are imported respectively from Norway and Scotland.

AN Aqua Network Ltd. was founded on June 30th, 2017 with headquarters in Sofia, as a subsidiary of the Japanese SWATO Inc. The company offers individually designed treatment plants for public and industrial wastewater, as well as other products and services in the field of water treatment. The treatment plants of AN Aqua Network – “Asahi Jokaso”, are manufactured at a factory in Bulgaria under strict quality control of the production processes and the end products. In addition to design and production, the activity includes also on-site delivery, commissioning, complete service and after-sales maintenance, as well as 24-hour real-time remote monitoring of the work of the built WWTPs.

In 2018, Pentax Medical opened a 3000 m² service centre in Plovdiv with a personnel of over 120 people.

In 2019, Japanese concern Ricoh became a shareholder in the Bulgarian software company “Nemetschek Bulgaria”.

Japanese game developer SEGA expands its presence in Bulgaria with the opening of a new QA (quality assurance) studio. The company will relocate its unit from London, and the Sofia office is to open in June 2020. In 2017, SEGA purchased the Bulgarian gaming company Crytek Black Sea with a team of 60 developers.
3. Total investments of Japan in Bulgaria in the period 2014-2018

Available data on Japan’s annual investments in Bulgaria show that the total volume of Japanese investments in Bulgaria in 2014 is 71 million EUR. In 2018 it decreased to 55.6 million EUR. Compared to other CEE countries, the amount of investments is 2-3 times smaller, weighted against the GDP of Bulgaria. Particularly alarming is the decrease in recent years. On the one hand, this part of the difference can be explained by the geographical factor, but for the other part, we believe there are opportunities for a more active policy to overcome this gap.

Table 3

<table>
<thead>
<tr>
<th>Period</th>
<th>Value (million EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>71.0</td>
</tr>
<tr>
<td>2015</td>
<td>61.5</td>
</tr>
<tr>
<td>2016</td>
<td>57.1</td>
</tr>
<tr>
<td>2017</td>
<td>61.3</td>
</tr>
<tr>
<td>2018</td>
<td>55.6</td>
</tr>
</tbody>
</table>

Source: Bulgarian National Bank.

The review of the realized Japanese investments and projects in Bulgaria shows that Japan has a constant interest in our country. Initially, Japanese resources relate to state and parastatal funding and aim at solving pressing problems of the society. At a later stage, private investments in promising projects are realized, and public funding from Japan goes to large infrastructure projects. However, the scale and distribution of Japanese investments are relatively low. This does not correspond to the significantly improved investment environment that has existed in our country for the last 12-15 years.

V. PERSPECTIVE ECONOMIC SECTORS AND PRODUCTIONS FOR the JAPANESE INVESTMENTS IN BULGARIA

1. Economic sectors with a potential for Japanese investments

For identification of the opportunities for attracting Japanese investments in Bulgarian economic sectors is used methodology based on the approach of Yasumura (1996) to assess the potential for import/export.

The first step is to analyze outgoing direct investments from Japan by sectors. The goal is to outline the sectors and productions, from which those Japanese investments abroad most often originate. Companies that have already invested abroad in one or more countries are more likely to invest in Bulgaria as well, compared with companies that do not have the experience and capacity to invest abroad. The analysis includes also the number of...
subsidiary companies abroad established by one Japanese parent company. It is argued that when a parent company invests in more than one subsidiary abroad, it is a criterion for internationalization and it is realistic to expect that it may invest in other countries as well, like Bulgaria.

The **second step** analyzes the structure of incoming foreign direct investment in Bulgaria by sectors. The goal is to assess in which sectors the country is of interest and competitive in attracting investments. The presence of foreign companies by sectors is also analyzed to determine which sectors have higher FDI absorption. Thus the potential for attracting investments by sectors is assessed.

The **third step** analyzes the points of intersection in sectors, where Japan has a potential and experience in investing abroad and Bulgaria is attractive for foreign direct investments in the respective type of production. The comparison of the two structures outlines the sectors and productions that have a high potential for attracting FDI from Japan.

To this list of potential sectors are added those where Bulgaria has not attracted investments but Japan does have experience in investing abroad. This would create a comfort for the potential Japanese investors as they will not have foreign competitors on the domestic market.

**Outgoing direct investments from Japan to the world**

The leading sectors by outgoing foreign investments from Japan are presented on Table 4.

<table>
<thead>
<tr>
<th>Top 8 sectors by FDI in 2017</th>
<th>FDI in 2017 (million USD)</th>
<th>FDI – change to 2014 (%)</th>
<th>Parent companies</th>
<th>Subsidiary companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for all sectors</td>
<td>1 494 648</td>
<td>9.10</td>
<td>4 420</td>
<td>17 937</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>307 798</td>
<td>12.80</td>
<td>129</td>
<td>464</td>
</tr>
<tr>
<td>Trade; repair of motor vehicles and motorcycles</td>
<td>205 734</td>
<td>8.60</td>
<td>1 420</td>
<td>4 660</td>
</tr>
<tr>
<td>Manufacture of motor vehicles and other transport equipment</td>
<td>125 688</td>
<td>6.10</td>
<td>899</td>
<td>2 217</td>
</tr>
<tr>
<td>Manufacture of food products, beverage and tobacco</td>
<td>82 814</td>
<td>5.70</td>
<td>230</td>
<td>464</td>
</tr>
<tr>
<td>Manufacture of basic metals and metal products</td>
<td>45 732</td>
<td>3.20</td>
<td>978</td>
<td>1 831</td>
</tr>
<tr>
<td>Construction</td>
<td>8 055</td>
<td>11.80</td>
<td>145</td>
<td>316</td>
</tr>
<tr>
<td>Manufacture of textiles and clothing; leather and more</td>
<td>7 891</td>
<td>9.70</td>
<td>777</td>
<td>1 322</td>
</tr>
<tr>
<td>Manufacture of coke, refined petroleum products and nuclear fuel</td>
<td>3 140</td>
<td>-11.30</td>
<td>171</td>
<td>301</td>
</tr>
</tbody>
</table>

Source: www.investmentmap.org.
As a whole, data show increasing investments from Japan abroad, with a 9.1% increase just in the three-year period. The sectors where Japanese companies invest abroad are: first is “Finance and Insurance” sector with about 307 billion USD in 2017, followed by “Trade; repair of motor vehicles and motorcycles” with 206 billion USD and “Manufacture of motor vehicles and other transport equipment” with 126 billion USD. “Manufacture of food products, beverage and tobacco” is also an important sector where Japanese companies invest abroad.

Regarding the change of investments compared to 2014 (column 2), the leading sector is again “Finance and Insurance”, and its change compared to 2014 is the highest of the studied sectors – 12.8%. The second sector by increase in 2014-2017 is “Construction” with 11.8%. Third place is occupied by the sector “Manufacture of textiles and clothing; leather and more” with a change of 9.7%. Fourth place is for “Trade; repair of motor vehicles and motorcycles” with 8.6% change. The sectors following are “Manufacture of motor vehicles and other transport equipment”, “Manufacture of food products, beverage and tobacco”, “Manufacture of basic metals and metal products”. The only sector with negative growth is the sector “Manufacture of coke, refined petroleum products and nuclear fuel”.

Data on the number of subsidiaries abroad show that Japanese companies investing abroad are highly internationalized: on average, one parent company establishes over three subsidiaries abroad – most likely in several countries. This directs the focus precisely on these companies as potential investors in Bulgaria.

The largest number of Japanese companies invest abroad in trade and repair of motor vehicles – 1420 parent companies and 4660 subsidiaries, with one parent company establishing average over three enterprises abroad. Second in number of companies abroad is the manufacture of basic metals and metal products with 978 subsidiaries, and in this sector, one parent company establishes average two subsidiaries abroad. There are 899 companies investing in the manufacture of motor vehicles abroad, which have established 2217 subsidiaries abroad, i.e. an average of about three companies each, which shows a high degree of internationalization. Japanese companies invest also in textiles abroad – 777 parent companies and 1322 subsidiaries worldwide.

The average size of an investment in a subsidiary is an important indicator that gives an idea of the scale of the activities the Japanese companies do abroad. The data show that the average investments are most significant in the financial sector, while in trade and textiles they are relatively small.

Japan is on second place in the world after USA by investment potential abroad in the “Manufacture of food products, beverage and tobacco” sector, on sixth place in the “Mining and quarrying” sector. In these sectors, Bulgaria has significant comparative advantages, which can be attracted to Japanese investments.

**Japanese companies are actively investing abroad, and in most cases in more than one company (more than one country). There is a high possibility that an active policy**

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20 ITC Investment map.
might attract investments from Japan. The largest number of Japan’s investments abroad is in the financial sector, followed by trade and manufacture of motor vehicles. For the purpose of attracting FDI from Japan, most realistic is to target exactly Japanese companies with experience in foreign investment.

_Incoming investments in Bulgaria from abroad_

_Incoming FDI in Bulgaria_ are presented in Table 5.

<table>
<thead>
<tr>
<th>Top sectors by FDI in 2017</th>
<th>FDI in 2017 (million EUR)</th>
<th>FDI – change from 2014 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for all sectors</td>
<td>42 492</td>
<td>13.5</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>7 014</td>
<td>14.7</td>
</tr>
<tr>
<td>Trade; repair of motor vehicles and motorcycles</td>
<td>5 808</td>
<td>30.7</td>
</tr>
<tr>
<td>Production and supply of electricity and heat, gas distribution, water supply, sewerage, waste management</td>
<td>3 240</td>
<td>-1.0</td>
</tr>
<tr>
<td>Transport, storage and mail</td>
<td>2 101</td>
<td>209.5</td>
</tr>
<tr>
<td>Construction</td>
<td>1 411</td>
<td>24.4</td>
</tr>
<tr>
<td>Manufacture of rubber, plastic and other non-metallic mineral products</td>
<td>1 208</td>
<td>15.1</td>
</tr>
<tr>
<td>Manufacture of food products, beverages and tobacco</td>
<td>1 131</td>
<td>27.7</td>
</tr>
<tr>
<td>Manufacture of basic metals and metal products</td>
<td>953</td>
<td>3.9</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>681</td>
<td>9.0</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>651</td>
<td>72.7</td>
</tr>
<tr>
<td>Manufacture of chemical products</td>
<td>648</td>
<td>12.7</td>
</tr>
<tr>
<td>Manufacture of machinery and equipment</td>
<td>436</td>
<td>37.7</td>
</tr>
<tr>
<td>Administrative and support activities</td>
<td>411</td>
<td>58.9</td>
</tr>
<tr>
<td>Manufacture of electrical equipment</td>
<td>404</td>
<td>42.2</td>
</tr>
<tr>
<td>Manufacture of wood, paper, paperboard and articles thereof (excluding furniture); printing activities</td>
<td>348</td>
<td>41.3</td>
</tr>
<tr>
<td>Manufacture of motor vehicles and other transport equipment</td>
<td>340</td>
<td>33.1</td>
</tr>
<tr>
<td>Manufacture of textiles and clothing; leather processing and more</td>
<td>256</td>
<td>0.4</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing industries</td>
<td>158</td>
<td>56.7</td>
</tr>
<tr>
<td>Education</td>
<td>30</td>
<td>656.4</td>
</tr>
<tr>
<td>Human health and social work</td>
<td>12</td>
<td>95.2</td>
</tr>
</tbody>
</table>

_Source: National Statistical Institute and Bulgarian National Bank._

As a whole, foreign direct investments in Bulgaria increase. As the data on Table 5 show, the leading sectors by incoming FDI in Bulgaria in 2017 (column 1) are: “Finance and insurance”, “Trade; repair of motor vehicles and motorcycles”, activities related to energy, water supply and sewerage, and gas distribution.

Although the financial sector has most foreign investments (about 75% of the assets in the banking system are controlled by foreign banks), it continues to attract the most
investments, their amount reaching nearly 7 billion EUR in 2017. Trade and repair of motor vehicles rank second by investments from abroad, taking into account the activity of the large foreign retail chains, which expand their sales network throughout the country. Manufacture of car parts increases in recent years.

In recent years, the highest growth in incoming investments is in the logistics sector – transport, storage and mail. The key geographical position of the country, as well as the competitive prices of the land, create conditions for large logistics and transport companies to establish businesses in the country.

Quarrying is also attractive, with 651 million USD invested by 2017, and for just three years the increase in investments is 72.7%. This indicates that the access to this sector is open to foreign companies.

Manufacture of chemical products is a traditional sector with predominantly foreign participation, with investments there increasing by almost 13% over the last three years. In the manufacture of machinery and equipment, the increase is by 37%.

The analysis shows that the Bulgarian economy is open to investments, and they are not concentrated just in few sectors but are well represented in all sectors of the economy.

**Points of intersection of outgoing FDI from Japan and incoming FDI in Bulgaria**

The structure of outgoing FDI from Japan shows the investment capacity in the different sectors, while the structure of incoming foreign investment in Bulgaria shows the attractiveness of the different sectors to investments in the country. The comparison between the two structures gives an opportunity to make a realistic assessment of which sectors of the Bulgarian economy are most likely and possibly to attract foreign direct investments from Japan.

The points of intersection of the leading positions in outgoing FDI from Japan and incoming FDI in Bulgaria are presented on Table 6.

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Position in outgoing investments from Japan</th>
<th>Position in incoming investments in Bulgaria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance and insurance</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Trade; repair of motor vehicles and motorcycles</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Manufacture of motor vehicles and other transport equipment</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Manufacture of food products, beverages and tobacco</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Manufacture of basic metals and metal products</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Construction</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Manufacture of textiles and clothing; leather and more</td>
<td>7</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: author’s calculations.
Based on the comparison, the following opportunities are identified:

**Finance and insurance.** In terms of outgoing investment from Japan and incoming investments in Bulgaria, this sector is the most active concerning the volume of investments, which relates to the specificity of the sector and the high capital requirements. Bulgarian financial sector undergoes a period of consolidation, i.e. “green-field” investments in the financial sector at this stage are also less possible due to the decrease of the interest margins in recent years. At the same time, however, continuing mergers and acquisitions in the sector provide space for direct and indirect investments in the banking and non-banking sectors.

**Trade; repair of motor vehicles and motorcycles.** The data show a complete match in the importance of this sector for both Japanese investors and the Bulgarian economy, in both cases ranking it second in terms of investment volume. Investment expectations in this field relate to two separate sub-sectors – trade, and repair of motor vehicles and motorcycles.

**Manufacture of food products, beverage and tobacco.** This is a sector with high development potential in Bulgaria with the country’s comparative advantages. It has a wide space for foreign investments and unused potential, mainly in terms of bioproducts based on traditional and unique raw materials. Here the foreign investments are less. The high reputation of Bulgarian dairy products in Japan can be more effectively capitalized in this area.

**Manufacture of basic metals and metal products.** In this sector, 978 Japanese companies invest abroad.

The other two leading sectors in Japan’s outgoing investments rank lower in the ranking of incoming investments in Bulgaria. These are: “Manufacture of motor vehicles and other transport equipment” and “Manufacture of textiles and clothing, leather and more”.

**Manufacture of motor vehicles and other transport equipment.** The motor vehicle industry has generated revenues of 1 billion EUR from over 170 companies with more than 40 000 employees in the sector. Bulgaria is a main supplier of car parts for brands like Mercedes, BMW, Audi, Ford, Volvo, Peugeot, Renault and Dacia. Manufactured parts include upholstery, seats, cables, air conditioning and engine parts, microchips, rubber seals, windows, springs, electronics, filters, aluminium profiles, belts.

Among the largest manufacturers with the most production and created jobs in Bulgaria are Integrated Micro-Electronics Bulgaria, Montupet, Grammer, Teleclass and more. Japanese companies already have an important share in the sector in Bulgaria – Yazaki Bulgaria, Johnson Controls Electronics (of Sumitomo). Personnel for the sector is trained in secondary and higher education. A training centre for diagnostics of electric and conventional vehicles has been established at the “Henry Ford” Vocational High School of Transportation and Energy.

**The outlined economic sectors, which are points of intersection between the leading positions in Japan’s outgoing FDI and Bulgaria’s incoming FDI, show where the opportunities to attract Japanese investments are.**
2. Other perspective sectors with comparative advantages for Bulgaria

**Information technology**

The software sector is rapidly developing, employing around 30,000 specialists, according to the software association’s data. GDP contribution is estimated by the association at close to 3%. The level of wages in the sector is the highest in the country and is comparable with the level in the other EU Member States. Recalculated through purchasing power parity, it exceeds some of the most developed European countries. Some of the main factors for the development of the industry are:

- Digitization of key industries: FinTech, Automotive, Medicine, etc.;
- Private and public IT education initiatives are entering a mature phase;
- Return of Bulgarians from abroad, reverse of the emigration trend;
- Development of regional centers;
- Working venture capital ecosystem;
- Qualification programs, including with European funds.

**Raw materials processing**

Raw materials account for about 40% of the structure of the Bulgarian exports by the way of utilization. The largest group is “Non-ferrous metals” with almost 10% of all commodity exports. On the second place are “Raw materials for manufacture of food products” with almost 7%, and on the third place is “Plastics and rubber” with 4%. The exported volumes reveal opportunities for directing FDI to their processing on the territory of Bulgaria.

---

Table 7

Total exports of raw materials from Bulgaria, net weight (thousand tons)

<table>
<thead>
<tr>
<th>Raw Materials Type</th>
<th>2000-2009</th>
<th>2010-2019</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolin and other kaolin clays, including calcinated</td>
<td>1309</td>
<td>2013</td>
<td>204</td>
</tr>
<tr>
<td>Refined copper and unprocessed copper alloys in</td>
<td>597</td>
<td>1920</td>
<td>146</td>
</tr>
<tr>
<td>Unrefined copper, copper anodes for electrolytic refining</td>
<td>1454</td>
<td>983</td>
<td>81</td>
</tr>
<tr>
<td>Raw lead</td>
<td>675</td>
<td>751</td>
<td>68</td>
</tr>
<tr>
<td>Other clays, andalusite, kyanite, silymanite, including calcinated, mulit, chamotte or dinas soil</td>
<td>1308</td>
<td>716</td>
<td>33</td>
</tr>
<tr>
<td>Raw zinc</td>
<td>807</td>
<td>654</td>
<td>58</td>
</tr>
<tr>
<td>Marble, travertine, seashells and other limestone</td>
<td>320</td>
<td>450</td>
<td>47</td>
</tr>
<tr>
<td>Natural barium sulphate (barite); natural barium carbonate (witherite), decalcified</td>
<td>803</td>
<td>334</td>
<td>67</td>
</tr>
<tr>
<td>Aluminum rods and profiles</td>
<td>101</td>
<td>286</td>
<td>35</td>
</tr>
<tr>
<td>Aluminum waste and scrap</td>
<td>220</td>
<td>265</td>
<td>29</td>
</tr>
<tr>
<td>Copper waste and scrap</td>
<td>100</td>
<td>108</td>
<td>10</td>
</tr>
<tr>
<td>Raw aluminium</td>
<td>51</td>
<td>70</td>
<td>7</td>
</tr>
<tr>
<td>Granite, porphyry, basalt, sandstone and other stones</td>
<td>95</td>
<td>68</td>
<td>7</td>
</tr>
<tr>
<td>Shale, shale dust and shale debris</td>
<td>18</td>
<td>45</td>
<td>4</td>
</tr>
<tr>
<td>Copper stone, copper sludge</td>
<td>42</td>
<td>37</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: National Statistical Institute.

Export of raw materials to Japan

Raw materials account for nearly 35% of Bulgaria’s exports to Japan in 2019, and according to the National Statistical Institute data, they have increased by almost 3 times in the last 15 years.
Table 8

Products with highest exports to Japan (tons)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolin and other kaolin clays, including calcined</td>
<td>1746</td>
<td>–</td>
<td>25015</td>
</tr>
<tr>
<td>Mollusca, including in shell, live, fresh, chilled, frozen, dried, salted or in brine; smoked;</td>
<td>357</td>
<td>6289</td>
<td>3873</td>
</tr>
<tr>
<td>Shaving and bath products, body deodorants, depilatory products, perfumery, toilet and cosmetic products</td>
<td>228</td>
<td>6</td>
<td>236</td>
</tr>
<tr>
<td>Granite, porphyry, basalt, sandstone and other stones used in monuments or construction</td>
<td>166</td>
<td>0</td>
<td>1160</td>
</tr>
<tr>
<td>Sunflower seeds, including crashed</td>
<td>147</td>
<td>346</td>
<td>873</td>
</tr>
<tr>
<td>Vegetables, dried, sliced or pieces, ground or in powder</td>
<td>109</td>
<td>1068</td>
<td>1042</td>
</tr>
<tr>
<td>Natural honey</td>
<td>102</td>
<td>143</td>
<td>426</td>
</tr>
<tr>
<td>Skins and other parts of birds covered with feathers or fluff, feathers and parts of feathers, fluff</td>
<td>94</td>
<td>–</td>
<td>361</td>
</tr>
<tr>
<td>Essential oils; resinoids; extracted oleoresins; concentrated solutions</td>
<td>71</td>
<td>537</td>
<td>836</td>
</tr>
<tr>
<td>Slate, including roughly trimmed or merely cut; shale dust</td>
<td>58</td>
<td>–</td>
<td>255</td>
</tr>
<tr>
<td>Chocolate and other food products containing cocoa</td>
<td>21</td>
<td>18</td>
<td>181</td>
</tr>
<tr>
<td>Oilseeds and fruits (excluding nuts, olives, peanuts, soya beans, dill, flax, rape, sunflower)</td>
<td>15</td>
<td>128</td>
<td>87</td>
</tr>
<tr>
<td>Plants, parts of plants, seeds and fruits used mainly in perfumery, medicine, for insects destruction</td>
<td>6</td>
<td>155</td>
<td>191</td>
</tr>
</tbody>
</table>

Source: National Statistical Institute.

Raw materials account for just over half of Bulgaria’s total exports to Japan for the last 19 years till 2019 including. In the years following the 2008 crisis, these exports vary between 1500 and 2000 tons on average per year, and increase to around 5000-6000 tons in the period 2013-2017. In the last two years until 2019 including, there is a drop in the volume and value of exported products to Japan, as well as in the share of raw materials in them.

Among the ten raw materials with the largest and most sustainable volume of exports from Bulgaria to Japan are kaolin, granite, mollusca, sunflower seeds, dried vegetables, natural honey and bird skins. Kaolin has been exported to Japan since 2010, as well as granite, while other raw materials for food products have a significant sustainable export share since 2000.

Over the last ten years, there has been an increase in demand mainly for bird skins and other parts of birds, essential oils, crustacea, mollusca and other aquatic invertebrates, wine and grape juice, dried vegetables, natural honey, fruits, nuts, sunflower seeds, and kaolin. The other products are an insignificant part in exports.
Opportunities for Japanese investments in the raw materials processing

Opportunities for Japanese investments in Bulgaria, related to the realized export of raw materials and increased demand from Japan, exist in:

- Manufacture of end products from skins and other parts of birds;
- Manufacture of end food products from crustacea, mollusca;
- Processing of essential oils in the end cosmetic products;
- Manufacture of sunflower oil and butter from sunflower, saffron or cotton.

![Imports & Exports from/to Third Countries, 2018, Thousand Euro](chart.png)

*Source: UN COMTRADE.*

Other investment opportunities exist also in the processing of raw materials, for which Japan realizes sustainable imports from other countries, and Bulgaria exports steadily to third countries, but the two countries do not have commodity exchange, or there is an opportunity for larger quantities. Such are, for example, seaweeds, dried vegetables, vegetable juices, extracts, fruit juices, plants and parts of plants for perfumery, and fruits and nuts.

The review of the export structure of raw materials in the total exports, including to Japan, shows that there is a good premise for investment interest in positioning relevant processing productions in Bulgaria with medium and high added value of the end product.

**Waste processing**

Waste processing is an area where Bulgaria is lagging behind on its national goals and needs investors with technological advantages. Attracting foreign investors in this area may require a faster overcoming of difficulties, both with the changes to the regulatory...
framework of the domestic market and with the rapid introduction of technologically innovative solutions and achieving the unfulfilled goals.

The total amount of waste generated in Bulgaria in 2017 (excluding from “Plant-growing, stock-breeding and hunting”; “Supporting activities”; “Forestry”; “Fish industry”, “Mining”) is 20,693 kilotons (including hazardous, non-hazardous and domestic).

Source: Ministry of Environment and Water.

Source: Eurostat.
At the same time, in Bulgaria, there is a tendency of increase of import of hazardous waste in the last 6-7 years, and especially in 2017, when it reaches 72 kilotons, more than 5.4 times bigger than the one generated in the country. The largest share of imports of hazardous waste is from Romania, followed by the Netherlands and our neighbouring countries – Serbia, Greece, Cyprus, Northern Macedonia. In 2017, the import of hazardous waste is 72 kilotons, with an average annual 13 kilotons generated in the country in the period 2010-2016.

Source: Eurostat.

Source: National Statistical Institute.

Waste management remains a challenge for Bulgaria, although the produced waste is below the EU average. According to the EC “Early Warning Report” (2018), Bulgaria is at risk of not reaching the goal of recycling 50% of its waste in 2020. In 2017, this rate was 35%, compared to an EU average of 46%.

One of the main reasons for the low percentage is the lack of separate collection of non-metallic waste, as well as the competition between official and unofficial collection systems. The unregulated schemes for promoting separate collection for both recycling companies and citizens do not allow free growth of investments in this sector.

**Energy production from waste biomass**

Due to its favourable geographical position, Bulgaria has plentiful resources for energy from renewable sources, including biomass. Experts estimate that the biomass energy potential is around 3400 MW in total.

Apart from the traditional heating biomass “firewood”, which now creates a number of problems with the protection of air purity in the winter due to the massive consumption caused by the expanding energy poverty in the country, the unconventional biomass resources from agriculture and industry have not yet been fully utilized. The processing of these resources into electricity and heat, or pellets for home use, meets a number of strategic and regulatory documents in this field.

Expert assessment of the Executive Environment Agency concerning the volume of industrial wood waste from the wood-working, wood-processing and furniture industries, and concerning the theoretical potential of this waste wood biomass for energy production, as well as its energy equivalent, shows a serious theoretical potential of these wood waste, respectively: average volume of industrial wood waste 856 119 m³/year, with an energy equivalent of 244 300 tons/year, of which 48.9% or 119 400 t.n.e. coniferous wood waste and 51.1% or 124 900 t.n.e. deciduous industrial wood waste.

According to NSI data, the average annual production of the two types of industrial wood waste amounts to about 43 000 tons, grouped in two product codes – wood shavings and flour (sawdust and bran), and wood chips and particles.

<table>
<thead>
<tr>
<th>Type of crop</th>
<th>Planted areas, decares</th>
<th>Average yield per decare</th>
<th>The amount of biomass produced, tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat and barley</td>
<td>14010</td>
<td>400</td>
<td>5604</td>
</tr>
<tr>
<td>Maize</td>
<td>28750</td>
<td>734</td>
<td>21102</td>
</tr>
<tr>
<td>Sunflower seeds</td>
<td>10270</td>
<td>250</td>
<td>2567</td>
</tr>
<tr>
<td>Cane</td>
<td>17918</td>
<td>540</td>
<td>9676</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>38950</td>
</tr>
</tbody>
</table>
Table 10

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Coniferous wood</th>
<th>Deciduous wood</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual average amount of industrial waste from processing of large wood, m³/g</td>
<td>241848</td>
<td>135631</td>
<td>377479</td>
</tr>
<tr>
<td>Average volumetric content of dry mass, t/m³</td>
<td>0.45</td>
<td>0.65</td>
<td>–</td>
</tr>
<tr>
<td>Amount of dry mass, t/year</td>
<td>108832</td>
<td>81160</td>
<td>196992</td>
</tr>
<tr>
<td>Amount of work mass (40% absolute humidity), t/y</td>
<td>181387</td>
<td>146933</td>
<td>328320</td>
</tr>
<tr>
<td>Lower combustion heat, GJ/t</td>
<td>10.54</td>
<td>10.42</td>
<td>–</td>
</tr>
<tr>
<td>Energy equivalent, GJ/year</td>
<td>1911819</td>
<td>1531042</td>
<td>3442861</td>
</tr>
<tr>
<td>Energy equivalent, t.n.e./year</td>
<td>45663</td>
<td>36568</td>
<td>82231</td>
</tr>
<tr>
<td>Rounded value of energy equivalent, t.n.e./year</td>
<td>45700</td>
<td>36600</td>
<td>82300</td>
</tr>
</tbody>
</table>

| Industrial waste from processed wood           |                |                |         |
| Average annual amount of industrial waste from process wood, m³/year | 260378         | 218262         | 478640  |
| Average volumetric content of dry mass, t/m³     | 0.45           | 0.65           | –       |
| Amount of dry mass, t/year                     | 117170         | 141870         | 259040  |
| Amount of work mass (60% absolute humidity) t/year | 292925         | 354675         | 647600  |
| Lower combustion heat, GJ/t                    | 10.54          | 10.42          | –       |
| Energy equivalent, GJ/year                     | 3087432        | 3695714        | 6783146 |
| Energy equivalent, t.n.e./year                 | 73742          | 88271          | 162013  |
| Rounded value of the energy equivalent, t.n.e./year | 73700          | 88300          | 162000  |
| Total value of energy equivalent, t.n.e./year of industrial waste from processed wood | 119400         | 124900         | 244300  |


**Manufacture of electric motors for bicycles**

Bulgaria is one of the largest manufacturers of bicycles for the European market, with a production of over 1 million bicycles per year, by 2018. There are 5 factories of 4 manufacturers located here, namely Leader 96, Cross, Maxcom, BalkanVelo, with a long history on the market. Over 60-70% of the production in Bulgaria is for export to the European market, mainly to Germany, the Netherlands, France, Italy, Austria, Switzerland, Denmark and others.

As demand for electric bicycles increases, factories are planning to produce more and more of them. Leader 96 plans to produce 100 000 electric bicycles in 2020.

Much of the bicycle components are purchased from Asia, and electric motors for the bicycles are purchased mainly from the Japanese company Shimano. These components are imported from Japan and are used not only by Bulgarian manufacturers but also by European ones. According to the local manufacturers, their competitors in Europe also buy electric motors from Japan.

**BICYCLES PRODUCTION IN BULGARIA, THOUSAND UNITS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>516</td>
</tr>
<tr>
<td>2008</td>
<td>562</td>
</tr>
<tr>
<td>2009</td>
<td>458</td>
</tr>
<tr>
<td>2010</td>
<td>532</td>
</tr>
<tr>
<td>2011</td>
<td>642</td>
</tr>
<tr>
<td>2012</td>
<td>837</td>
</tr>
<tr>
<td>2013</td>
<td>749</td>
</tr>
<tr>
<td>2014</td>
<td>950</td>
</tr>
<tr>
<td>2015</td>
<td>940</td>
</tr>
<tr>
<td>2016</td>
<td>948</td>
</tr>
</tbody>
</table>

Source: Statista.

**BICYCLES SALES IN EU-28, THOUSAND UNITS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>21.344</td>
</tr>
<tr>
<td>2008</td>
<td>20.266</td>
</tr>
<tr>
<td>2009</td>
<td>19.582</td>
</tr>
<tr>
<td>2010</td>
<td>20.461</td>
</tr>
<tr>
<td>2011</td>
<td>20.059</td>
</tr>
<tr>
<td>2012</td>
<td>19.719</td>
</tr>
<tr>
<td>2013</td>
<td>19.789</td>
</tr>
<tr>
<td>2014</td>
<td>20.340</td>
</tr>
<tr>
<td>2015</td>
<td>20.633</td>
</tr>
<tr>
<td>2016</td>
<td>19.606</td>
</tr>
</tbody>
</table>

Source: Companies’ websites.

**BICYCLES PRODUCTION CAPACITY BY MANUFACTURER, 2019, UNITS**

- Maxcom: 500,000
- Leader 96: 400,000
- Cross: 250,000

Source: Statista.
Localization of the production of bicycle electric motors for the European market would be of interest not only to Bulgaria and Japan, but also to the whole European market, with the expectation of shortening the delivery time and consequently the cost. Given that the manufacture of bicycles is a labour-intensive industry, Bulgaria has a comparative advantage.

**Green Economy**

The adoption of the European Green Deal in December 2019 sets new goals for a sustainable economy in all EU Member States and requires significant investments in eco-innovation in a number of sectors – transport, energy, agriculture, construction, and industries such as steel, cement, ICT, textile and chemicals.

Given the higher goals for emission reduction, decarbonisation of energy and eco-innovations in each area, our country will be favoured and will have additional funding. Expected is the creation of a billion-dollar fund, and companies that will invest in a green economy, local and foreign, will also be able to benefit from co-financing from this fund.

Bulgaria lags behind in its eco-innovation index, which is slightly below 39 in 2017, ranking last, with average 100 in EU-28, and average 140 in countries like Sweden, Finland, Luxembourg, Germany.

ECO-INNOVATION INDEX, 2017 (EU-28 = 100)
3. Projects with potential for Japanese investments from national program documents

Considering Japan’s past interests in Bulgaria, several strategic projects are selected that could now be of interest for financing and involvement of Japanese companies in their implementation. These projects are included in adopted strategic documents in the energy, transport and ecology sectors. There is no ensured financing for them from European structural funds and Cohesion Fund, but they rely on other funding. The projects are in a different stage of readiness for project implementation, so some of them have estimates of their value, while others do not.

Projects in the Energy sector

• Expansion of “Chaira” Pumped-Storage Hydroelectric Power Station with “Yadenitsa” Dam;
• Expansion of the Chiren underground gas storage;
• Construction of a new gas storage facility connected to the existing gas network in Bulgaria.

Projects in the Transport sector

• Construction of “Black Sea” highway between Burgas and Varna;
• Construction of Ruse – Veliko Tarnovo expressway from km 0 to km 110, part of the trans-European corridor 9 – 400 million EUR;
• Construction of tunnel under Shipka – 125 million USD;
• Modernization of Karnobat-Sindel railway line (up to 130 km/h) – 200 million EUR;
• Restoration of Ruse-Varna railway line – 300 million EUR;
• Construction of intermodal terminal in Ruse.

Projects in the Ecology sector

• Closure and recultivation of municipal depots that do not meet the current environmental requirements.

MACROECONOMIC, REGULATORY, EXPORT, AND PRODUCTION FACTORS, PRESENTED IN THIS EXPERT REPORT, SHOW THE SERIOUS PREMISES FOR JAPAN'S INVESTMENT INTEREST IN BULGARIA.
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