

# Value Chain Analyses: North-East Region

## Manufacturing, Food and Agricultural Production, Leather and Textile Industry



## EU for Economic Growth Project

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# 1. Introduction

This document presents the three selected value chains for the North-East planning region.

## 1.1. Economic Indicators

The North-East planning region covers 2310.32 km<sup>2</sup> or 9.08% of the total territory of the country, inhabited by 176'086 inhabitants, which represents 8.48% of the total population in the country. The North-East is the lowest developed region in the country with a development index of 0.62. The Socio-economic index of 0.27 is by far the lowest in the country. The GDP of the North-East region has increased from 28'926 Million MKD in 2015 to 33'035 Million MKD<sup>1</sup> in 2019, but its share in the total GDP of the country dropped from 5.2% in 2015 down to 4.8% in 2019.

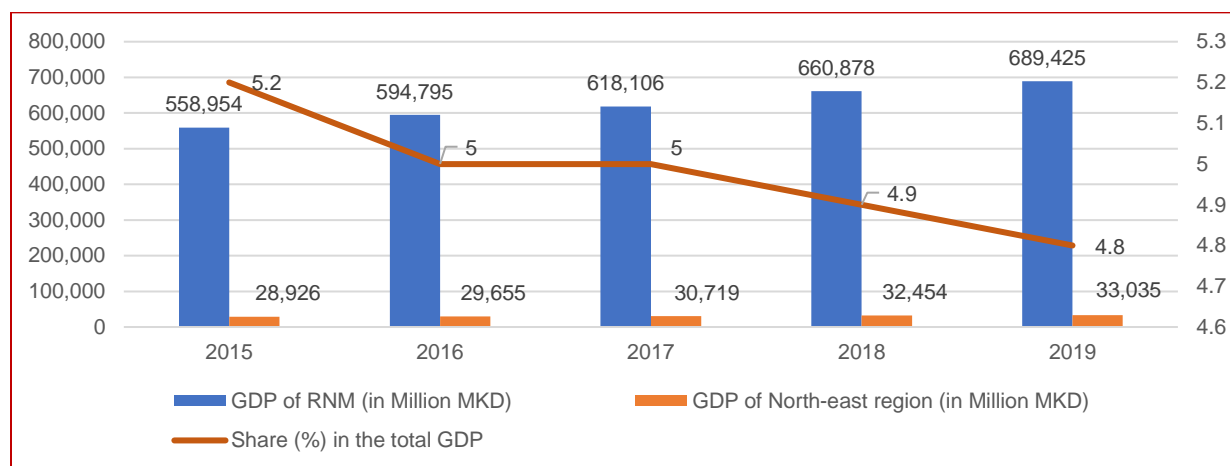


Figure 1: GDP of the Republic of North Macedonia and North-East planning region, 2015 – 2019 Source: State Statistical Office, makstat database

The GDP per capita of the North-East region has increased in absolute value from 164'161 MKD million in 2015 to 187'609 MKD million in 2019, but when compared with the GDP per capita of the country it dropped from 60.8% in 2015 down to 56.5% in 2019. The number of active business entities in 2019 in the North-East region is 4'174 and represents 5.5% of the total number of active business entities in the Republic of North Macedonia which is 75'914. The number of active business entities per 1'000 inhabitants in North-East region is 23.7 and by this is the last ranked region in the country. The MSME's create 99.88% of the total number of companies with 90.6% being micro companies.

	N. Macedonia	NE Region	N. Macedonia	NE region	N. Macedonia	NE region
	2017		2018		2019	
<b>TOTAL</b>	<b>71.419</b>	<b>4.084</b>	<b>72.315</b>	<b>4.078</b>	<b>75.914</b>	<b>4.174</b>
<b>Share (%)</b>	<b>100%</b>	<b>5,72%</b>	<b>100%</b>	<b>5,64%</b>	<b>100%</b>	<b>5,50%</b>

<sup>1</sup> 1 EUR = 61,5 MKD

TOTAL / 1'000 inhabitants	34,41	23,17	34,81	23,14	36,56	23,72
0 <sup>2</sup>	7.888	308	8.221	329	7.565	260
1-9	56.658	3.387	57.184	3.359	61.265	3.522
10-49	5.255	302	5.271	305	5.448	308
50-249	1.382	82	1.399	79	1.404	79
250 +	236	5	240	6	232	5
Newly established companies	6.321	386	6.307	347	n/a	n/a
(%)	91,69%	93,26%	77,45%	91,64%	n/a	n/a

Table 1: Number of active companies in the Republic of North Macedonia and in North-East planning region based on the number of employees, 2017 – 2019 and number of newly established enterprises. Source: State Statistical Office, makstat database

The largest number of active business entities in 2020 is in the Municipality of Kumanovo 3.019 (73.8%), followed by the municipality of Kriva Palanka with 548 (13.4%), and Kratovo with 205 (5%).

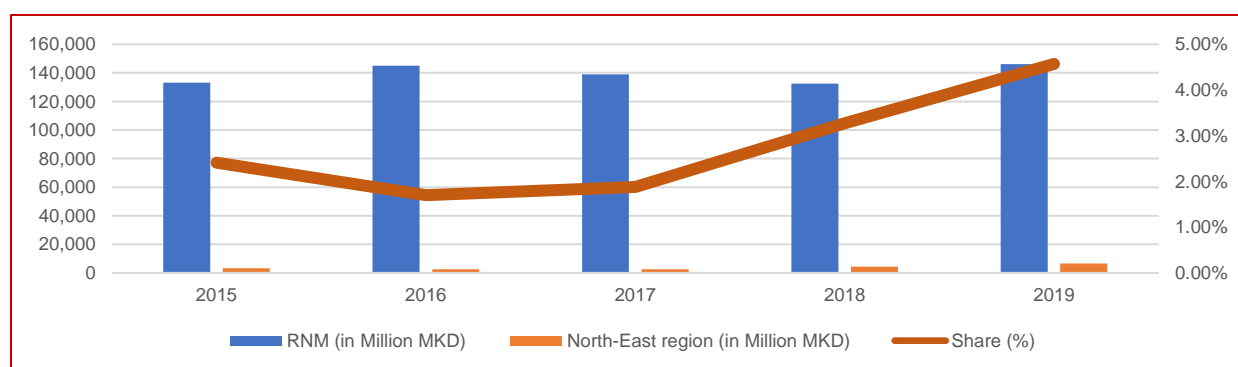


Figure 2: Investments in fixed assets in the Republic of North Macedonia and in North-East region, 2015 – 2019 Source: State Statistical Office, makstat database

**Investments in fixed assets** in the North-East planning region increased from 3'211 Million MKD in 2015 to 6'681 Million MKD in 2019. The total growth of investments in fixed assets in the North-East region in 2019 is 2.08 times compared to 2015. In the same period, the share of the regional investments in fixed assets at national level increased from 2.41% in 2015 to 4.57% in 2019. However, the share of investments in fixed assets from the region remains rather small.

The increase in the investments in fixed assets on regional level can be attributed to the Trade sector with an increase from 2.43% in 2015 to 8.84% and the Construction sector with increase from 3.82% in 2015 to 6.58% in 2019. The investments in fixed assets in the Agricultural sector has also increased from 2.04% in 2015 to 3.93% in 2019 despite the afore mentioned contracting of the sector at regional level.

The biggest contribution in the **exports** from the North-East region comes from the following sectors: Leather and related products with share of 43.4% of total exports from the sector at

<sup>2</sup> Including active companies with unidentified number of companies

national level, fabricated metal products, except machinery and equipment with share of 5.39% and rubber and plastic products with share of 5.32%.

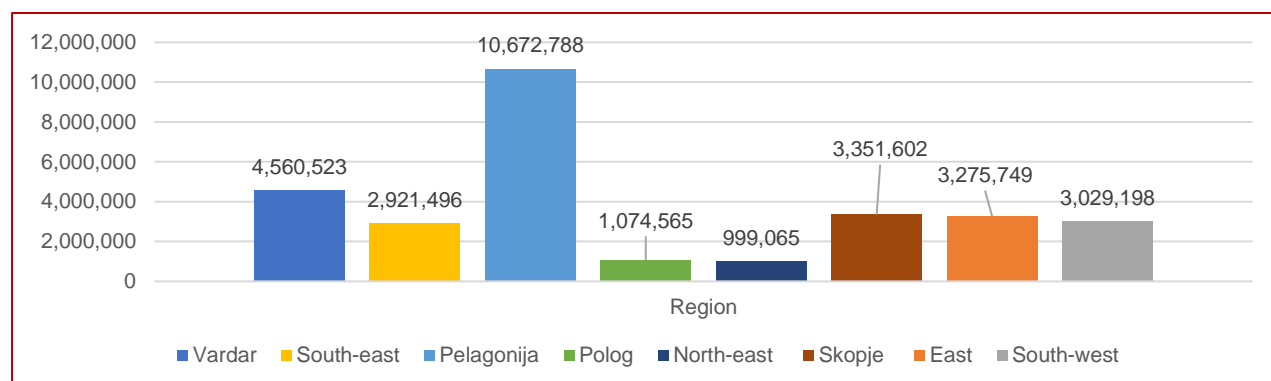


Figure 3: Volume of IPARD support per region, in EUR, 2019 Source: Strategy for regional development 2021 - 2031

The North-East region has received the lowest support through IPARD of all regions in amount 999'065 EUR.

The value of exports from North-East region have increased from 40.88 Million EUR in 2015 to 51.7 Million EUR in 2019 (increase of 25.9%). However, the share of exports from region decreased from 1% to only 0.8% in 2019.

Export Year	NE region (in Mio EUR)	Share of North-East region (%) <sup>3</sup>
2015	40.88	1.0
2016	48.29	1.1
2017	65.24	1.3
2018	58.72	1.0
2019	51.47	0.8

Table 2: Exports from North-East region, 2015-2019 Source: State Statistical Office, makstat database, Regions in the Republic of North Macedonia 2020, Estimates of the project team

In the same period, imports in North-East region have increased from 110.22 Million EUR in 2015 to 160.38 Million EUR in 2019 (increase of 45.5%). The share of imports in the region has remained rather stable with small variations with 1.9% in 2019.

Import Year	NE region (in Mio EUR)	Share of North-East region (%) <sup>4</sup>
2015	110.22	1.9
2016	123.53	2.0
2017	143.53	2.1
2018	138.17	1.8
2019	160.38	1.9

Table 3: Imports from North-East region, 2015-2019 Source: State Statistical Office, makstat database, Regions in the Republic of North Macedonia 2020, Estimates of the project team

<sup>3</sup> Republic of North Macedonia = 100%

<sup>4</sup> Republic of North Macedonia = 100%

Only 1.36% of the approved projects by the Fund for Innovation and Technological Development (**FITD**) were those of applicants from the North-East region or in seven projects out of 514 in total (six in Kumanovo and one in Kriva Palanka) with total volume of 723'896.42 EUR. The dominant sectors were Construction with two projects and total volume of 415'278 EUR and Machine industry & Engineering with two projects and total volume of 218'182 EUR.

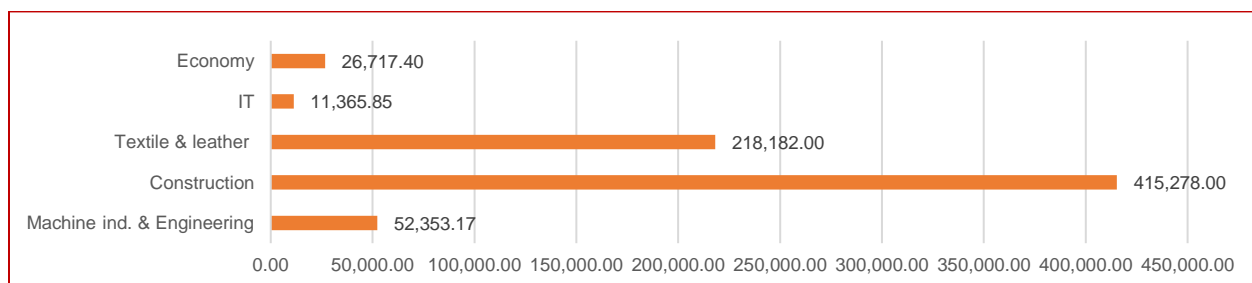


Figure 4: Volume of projects financed by FITD per sector in North-East region, in EUR Source: FITD, calculations of the project team

The biggest number of employees is in the manufacturing sector followed by wholesale and retail trade; repair of motor vehicles and motorcycles and construction. The biggest number of men are employed in the construction sector, while the biggest number of women are employed in manufacturing sector. The biggest number of men under 40 years old are also employed in the construction sector, while the biggest number of women under 40 years are employed in the sector wholesale and retail trade; repair of motor vehicles and motorcycles.

The average gross **salary** in North-East region is continuously increasing, but it is also continuously lower than the national average (73% of the national average). The biggest gross salary in the North-East region in 2019 have earned the employees in financial and insurance activities sector which is almost 75% higher than the regional average.

## 1.2. Environmental Indicators

There are not many relevant environmental indicators on regional level. The Table below provides information of water supply, use and protection against pollution in industry and mining in the North-East region. It is obvious that different indicators in North-East region in 2019 account for very small percentage (0 – 0.02%).

	2015	2016	2017	2018	2019
Water supply	378	367	220	207	327
(%)	0,01	0,01	0,01	0,01	0,01
Water used for technological purposes	210	264	220	201	275
(%)	0,0	0,01	0,02	0,01	0,02
Discharge of unpurified water	327	146	84	146	166
(%)	0,01	0,00	0,01	0,01	0,01
Discharge of purified water	112	3	16	48	47
(%)	0,07	0,02	0,01	0,01	0,02
Discharge of wastewater	0	-	100	194	213
(%)	0,0	-	0,01	0,01	0,01

Table 4: Water supply, use and protection against pollution in industry and mining in North-East region, in 000 m3, 2015 – 2019, Source: State Statistical Office, Regions in the Republic of North Macedonia, various editions

### 1.3. Social Indicators

The following social indicators for North-East region in 2019 have been extracted from the Strategy for regional development 2021 – 2031 and show a rather challenging situation:

- Activity rate of women is 43% (2019)
- Activity rate of those with not finished primary education is 15.1% (2019)
- Employment rate of women is 29.1% (2019)
- Employment rate of youth is 26.2% (2019)
- Employment rate of those with not finished primary education is 5.2% (2019)
- Unemployment rate of women is 32.2% (2019)
- Unemployment rate of youth is 50% (2019)
- Unemployment rate of those with not finished primary education is 65.4% (2019)
- Rate of poor people as % of the population in North-East region is 39%
- Rate of poor or socially excluded people (AROE) is 60%
- NEET rate for young people neither in employment nor in education and training (15 – 29) is 42.5%.

In the period 2015 - 2019, the activity rate in the North-East planning region is lower than the national average. It has the third lowest activity rate (active working population) of 55.2% in 2019. The North-East region has the lowest employment rate of 37% in 2019 of all regions in the country and it is continuously under the national average for the whole period 2015 - 2019. The unemployment rate in North-East region has decreased from 43.2% in 2015 to 33% in 2019. However, that rate is still by far the highest of all regions in the country.

The indicators related to education are provided in the tables that follow. The number of enrolled students in primary and secondary education is continuously decreasing.

Indicator	2015/16	2016/17	2017/18	2018/19	2019/20
Number of enrolled pupils in primary schools	16'536	16'409	16'134	15'860	15'710
Number of enrolled pupils in secondary schools	7'196	7'913	6'336	6'517	6'291

Table 5: Total number of enrolled pupils in primary and secondary schools in North-East region, 2015/16 – 2019/20 Source: State Statistical Office, makstat database, Regions in the Republic of North Macedonia, 2015 - 2020

The number of graduated students in the North-East region shows small variation with slightly positive trend in the analysed period. The North-East region had in total 602 graduated students and 3.4 graduated students per 1'000 inhabitants in the school year 2018/2019.

Indicator	2014/15	2015/16	2016/17	2017/18	2018/19
Number of graduated students <sup>5</sup>	580	646	566	590	602
Number of graduated students per 000 inhabitants	3.3	3.7	3.2	3.3	3.4

Table 6: Analysis of the indicators related to higher education in the North-East region, 2015/16 – 2018/2019 Source: State Statistical Office, makstat database, Regions in the Republic of North Macedonia, 2015 – 2020

<sup>5</sup> Number of graduated students is based on their place of residence.

## 2. Value Chain Selection







- **Food and Agricultural Production;** With food demand growing and with around 1500 food producers and agricultural manufacturers, the NE region is highly attractive for new setting up production facilities for food production and processing. Historically, even in former Yugoslavia, precisely NE region (all municipalities) has been supplying local and foreign markets with high quality fruits and vegetables. It is estimated that one mid-size company can produce up to 5'000 tons of vegetables, all sourced locally. With support of donors, there is potential to intervene in all parts of the value chain, especially towards primary agricultural producers as essential part of the eco-system. High profit companies in the sector are ready to invest in additional added value and innovative models such as R&D centers.
- **Leather and Textile** industry are recognizable in Kumanovo and NE region. Shoes produced in Kumanovo are all over the EU markets, especially Italy and Germany. Shoes production business in NE is EUR 10.0 Million (out of which roughly 90-95% is exported). The industry is employing 1'200-1'400 people in the region. There is unused capacity to produce up to 500'000 units a year (now it's 350'000). Although most of production is CM/CMT, we have identified targeted interventions to increase the productivity and offer possibility to selected cluster of companies (textile and leather both) to increase competitiveness and add value in terms of opening new markets and creation of own brands. As the image for the industry is low and not attractive for young people, targeted interventions among young designers could generate interpleural ideas for own labeling and branding.
- **Manufacturing** helps raise living standards more than any other sector. Manufacturing companies influence directly research and development, innovation, productivity, exports, and middle-class jobs. Manufacturing generates more economic activity than other sectors. The manufacturing sector in most general terms is one of the main employers in the North-East region and therefore brings a great potential of added value and opening well-paid new jobs for qualified young people.



## 2.1. Selection Matrix

The following matrix describes and rates the selection criteria for the three different Value Chains and provides an overview over the multiple criteria. In the next section the key criteria of the selected value chains within the relevant dimensions (Economic, Environmental, Social) are presented in more detail.

### 2.1.1. Activity Type

	 Innovative nature	 Expected Market Disruption	 Expected Additional Income	 Local Job Creation (esp. Target Groups)	 Contribution to Circular Economy	 Overall Assessment
Food and Agricultural Production	***	***	***	***	**	***
Textile & Leather industry	*	**	***	***	**	**
Manufacturing	***	***	***	***	***	***

### Food and agricultural production

- **Innovative nature:** The sector has unmet potential and opportunities to develop new services incorporating innovation technologies in existing production lines and adding new products.
- **Expected Market Disruption:** New product development with improved quality and new services will upset the status quo and bring changes to the market. For example, companies in the food sector will have the opportunity to introduce new products by using new technologies and open new market segments employing skilled workers.
- **Expected Additional Income:** Primary producers could generate additional value by new investments in equipment. Activities related to decreasing operating costs (Energy Efficiency & Renewable Energy projects). Local farmers as main suppliers (milk, meat, fresh vegetables.) will boost revenues by increased production volume.
- **Local Job Creation (Target Groups):** The expectation is that number of new jobs generated as a result of additional investments in services will grow due to increased demand for food products. It is assumed that the Food sector will continue to grow with 10%<sup>6</sup> per year. New employments are expected and therefore opening possibilities for unemployed men and women aged 25-40.
- **Contribution to Circular Economy:** Increasing the awareness for recycling, greening the businesses and certain waste management improvements, especially in the fresh fruits and vegetable production is expected.
- **Overall Assessment:** The proposed initiatives will increase the value chain's competitiveness and contribute to the additional income for companies and boost opening of new companies

<sup>6</sup> <https://investnorthmacedonia.gov.mk/invest-agrobusiness-and-food-processing/>



in many segments of the supply chain. This value chain is very important for the region as food companies have strong ties with local primary producers and whole food supply chain.

### Textile and leather industry







- **Innovative Nature:** Sustainable fashion as a concept is still new in the local context but offers possibilities for established companies to implement new production processes and to add value in their end-products. Cross sectoral experiences and projects (e.g. DeveloPPP) within GIZ could add value and force innovative ideas from other key player in the industry.
- **Expected Market Disruption:** Markets in Europe and in the world are demanding sustainable garment products. It is expected that customers will demand products produced in sustainable ways and that habits of customers are changing. There is potential for local companies to shift towards better ways of textile and leather manufacturing, rather than the traditional ones.
- **Expected additional income:** Currently, most companies are “CMT (Cut, Make & Trim)”. The expectations are that there are opportunities for companies to shift to extra added value production through direct contact with end buyers, skipping the “middle-man” in the industry and by that generating additional income with same number of working hours. This will lead to business growth, increase of salaries and increased competitiveness.
- **Local Job Creation:** Currently, the image of the industry is somewhat positive, however, young people could be attracted to join the industries and accept jobs that are more valuable – as the sustainable fashion as concept is creative and on the rise, and offers decent working conditions. Creatives in the industry will have more opportunities to take newly opened jobs.
- **Contribution to the Circular Economy:** The concept of a circular fashion industry is a fast-growing movement to reuse and recycle all materials, lowering waste and pollution. As such, if implemented, the contribution to circular economy is enormous and easily measurable in quantities and resources saved.
- **Overall Assessment:** the selected VC is important for the region from the perspective of export and strong *know-how* that is existing in all cities in the region. Factories have capacities to shift from current to more added-value types of production. New brand development, patenting, intellectual property protection, attracting creative young people are only some of the options to generate added value jobs.

### Manufacturing

- **Innovative Nature:** Innovations and manufacturing go together as the developed world's markets are driven by rising demand for innovative products. Manufacturing facilities in the region have record to invest in innovative processes. High-end manufacturing processes are innovative by nature and present in the existing capacities in the region to some extent.
- **Expected Market Disruption:** There is already know-how among international companies present in the zones. Globally developed supply chains in the manufacturing industries are affecting the small countries, however, due to positive success stories in the manufacturing area (automotive OEM, Tier 2 etc.), it is expected that new investments will trigger competitiveness among existing companies, especially having in mind the decentralized process of attracting new tenants in the Zone of Kumanovo.
- **Expected Additional Income:** Additional income is expected as a result of new product development, either within existing companies or from new products developed from individuals and local smaller suppliers in the North-East. Expected additional income is highest in manufacturing industries, compared to any other.

- **Local Job Creation:** Manufacturing has always had a higher employment multiplier<sup>7</sup> than any other economic sector. Based on personal interviews with B2B representatives, the available labor in the main cities and surrounding areas will benefit from new job openings. Job creation is scalable and easily measurable even on short periods (project timeline). Targeted interventions have exact number of expected new jobs that will be generated.
- **Contribution to Circular Economy:** Transitioning from the linear to the circular economy will become a must as a result of *EU Green deal* and *Balkans Green agenda*. Manufacturers are leaders in circular economy. Circular manufacturing offers companies' incentives for product design innovations, new business models and technologies to recover materials and reuse them. Every intervention has circular economy as one of the basic filters.
- **Overall Assessment:** Manufacturing is the key sector for developing new jobs – especially knowing that NE is the most underdeveloped region in the country; NE region, due to the geographical positioning, has strong potential to serve foreign and domestic manufacturing capacities. The proximity to the capitals and to European markets, incentive packages in line with EU legislation and the available labor are pros. *Tailor-made* prequalification programs with VET schools are also in favor of attracting investment from multinationals and existing domestic companies. Rising production costs in EU countries (and wider) is driving the companies in search for new production places for their operations.

### 2.1.2. Sector Type

	 Circular and Green Economy	 Innovation and IT	 Highly Competitive Economic Sector	 Rural development Business Development Services	 Export Potential/ Import Substitution	 Overall Assessment
Food and agricultural production	***	***	***	***	**	***
Textile and leather industry	**	*	***	*	**	**
Manufacturing	***	***	***	**	***	***

### Food and agricultural production

- **Circular and Green Economy:** Food production trends are showing greening the production processes will be dominant till 2050 (*EU Green Deal*). According to available data, finding a balance between food supply and demand in a manner that is sustainable. Growing demand for lowering resources demand will drive local companies towards maximum utilization of recycled resources.
- **Innovation and IT:** Foreign experiences show innovations in food production are happening on daily basis. Digitalization of production processes, incorporating new lines while using new

<sup>7</sup> [https://www.wmep.org/wp-content/uploads/2015/01/Rockwell\\_0312\\_Final.pdf](https://www.wmep.org/wp-content/uploads/2015/01/Rockwell_0312_Final.pdf)

tools and lowering dependence on fossil fuels are among potentials for new and existing companies in the sector. Several companies in the region are already implementing energy efficiency processes (photovoltaics, solar, biomass energy).

- **Highly Competitive Economic Sector:** Due to favorable climate conditions and proximity to EU markets, the region has its own strong advantages especially for start-ups.
- **Rural development Business Development Services:** Developing agricultural businesses is one of the pillars of rural development, as primary producers are predominantly based in rural areas of the region (villages, mountain areas...). BSO's specialized in rural development are active in the region providing professional support to food producers.
- **Export Potential/Import Substitution:** The export potential can be enormous, depending on several factors, but mainly driven from the fact how much value is being added. Products with higher added value have potentials to compete at developed markets in the EU and globally. Demand for food is growing and is expected to rise in the next decade. Traditional markets are always searching for better food (natural) products at a competitive price. Kosovo, Bosnia and Serbia are the largest trading partners, but new markets such as Russia are opening up.
- **Overall Assessment:** Food and agriculture are traditional sectors in the country and in the region. By adding new innovative elements in the production, the potential to serve regional and European markets is targeted. This sector offers many opportunities for development of every segment of the supply chain and drives economic growth of the region and the country.

### Textile and leather industry

- **Circular and Green Economy:** Green economy and textile are interconnected. In the region, circular economy is still not among priorities, however some cases show trends going into sustainable ways of production and with targeted interventions, the sector could grow.
- **Innovation and IT:** Some companies in the sector are producing manually and labor intensity is huge. Innovative strategies in the textile industries are more and more present throughout the whole supply chain. New energy efficient equipment, robotics, alternative leather and related technological interventions that are essential to stay in the business. However, this is limited. In leather industry, there is a potential for protecting designs and patenting, but still at insufficient level when it comes to adding value of higher business importance.
- **Highly Competitive Economic Sector:** The fashion segment is highly competitive. Sustainable fashion is driven by the increased purchasing power at European and US markets. Demand for products that have been manufactured in sustainable way is huge. Plus, based on the statements from interviewed textile leather executives, the added value is 5 to 8 times bigger than the traditional clothing demand.
- **Rural development Business Development Services:** Local suppliers in rural areas are potentially affected in terms of developing products/parts for the bigger local companies, such as the shoe underparts. BSO's supporting rural development offer full cycle services to companies and have record in delivering successful projects, but due to globalization, local companies are limited to only basic development services with average added value.
- **Export Potential/Import Substitution:** This is mainly export oriented industry; resources are coming from Turkey and India. There is potential to substitute parts of the shoes.
- **Overall Assessment:** The selected sector is dominant in the region and kind of benchmark for the NE. There is strong know-how, well establish customer relationships with developed markets and potential in adding value.

## Manufacturing

- **Circular and Green Economy:** Benefits of a circular economy could include improvements in growth and productivity. The manufacturing sector benefits from reduced costs and increased security in supply materials, and through that - increased competitiveness.
- **Innovation and IT:** R&D centres in manufacturing capacities in the region do require additional capacity building support. Innovative solutions in manufacturing area are driving the competitiveness of companies in the sector. There are range of opportunities to trigger innovation cycles within existing companies, but also with the others part of the local supply chain.
- **Highly Competitive Economic Sector:** Manufacturing as a sector is a highly competitive area. Adding value through improved production processes and investments in new technologies is standard to remain and to increase productivity.
- **Rural development Business Development Services:** available labor is based in surrounding rural areas. Manufacturing jobs have strong impact on rural development as it creates better living for people in smaller villages and rural areas. This is also important in terms of increase purchasing power and smaller local investments in the rural areas in real estate, agriculture etc.
- **Export Potential/Import Substitution:** The export potential is a dominant driver in every new manufacturing project in the zones in NE region. Companies in manufacturing in the zones in the region are and should be export oriented in order to be eligible for subsidies. However, it is likely to face strong global competition due to developed supply chains and long-term contracts with foreign suppliers.
- **Overall Assessment:** The machine and automotive sector enjoys dynamic development and growing importance for the region's economy. The market size of the manufacturing industry is expected to increase 10.8% in 2021 globally<sup>8</sup>. Labour costs and government incentives related to manufacturing sector serve as basis to growth and opens opportunities to attract new high-end production facilities in the NE region.

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<sup>8</sup> <https://www.ibisworld.com/industry-statistics/market-size/manufacturing-united-states/>

Dimensions	Key Criteria	Food and agricultural production Key Criteria findings
ECONOMIC	Market demand prospects (local and/or export)	<p>There are 7100 food producers and food processing manufacturers in N. Macedonia. Around 1500 are in NE region. The market is growing with 10 % over the last years. Although total net export is increasing, the trade deficit is growing. More than 50 percent of the total export of agriculture and food products is in the EU countries: 50.5 percent, that includes Greece 14.6, Germany 14.4, Bulgaria 13.2 and Croatia 12 percent. The agricultural sector in the Republic of North Macedonia is the third largest contributor to GDP.</p> <p>The market has grown to 48% in the last 10 years. In NE region international and domestic traders are willing to source locally.</p> <p>Agribusiness is one of North Macedonia's most promising sectors. It is estimated that NE food business is around EUR 150 million. The total food export is EUR 367 million, but the total import is EUR 670 million. There is EUR 303 million. The price of food has increased 30.8% compared to 2020. Naturally sourced products prices are in constant increase, fresh fruits prices have risen 13.6% in 2020; vegetables 6.2%. Organic food production will grow as the demand for healthy products is growing. The prices of naturally sourced food products depend on the added value factor.</p>
	Opportunities for employment creation	<p>Out of 435'000 people working in the agricultural activities in the country, it is estimated that around 50'000 are in the NE region with 30 % working in the food value chain. In herbs and fruits collection segment alone, there are approximately 8'000 families in NE region making additional income from this segment (70% woman, with limited number of registered business entities).</p> <p>Developing their potential to produce quality goods and services in a sustainable way is key to achieving the global goals of eradicating rural poverty and achieving food security and sustainable growth</p> <p>Rising demand for food on both local and global markets forms space for new sector business development. The IPARD program is not sufficiently utilized by local producers. According to field research, local producers are willing to invest resources to bring opportunities for new job creation. It is estimated that number of jobs in the sector will grow till 2050. Modernization and digitization of the sector is creating new opportunities for further education of existing labour force.</p>

	Comparative advantage of production Level of competitiveness (in comparison to competing producers)	<p>Added value products produced locally have strong potential to take portion of the market, as prices for production are competitive. Positioned at crossroad of two EU corridors (X and VIII), close to main EU markets (less than 24 hours). Proximity to regional markets and relatively close connections to main ports (Thessaloniki, Durres).</p> <p>Strong tradition in food production and labour with excellent know-how are among key quality indicators when creating value proposition. In addition, there is an available labour force of 50'000 people in the region (often with basic education).</p> <p>Most exporters have certificates and EU safety standards and proximity to market offers unmet business possibilities.</p> <p>Labour costs are similar compared to surrounding production areas with comparative average salaries of about 350 EUR.</p>
ENVIRONMENTAL	Impact of the value chain functions on the environment	<p>NE region is among most polluted regions in the country and Kumanovo ranks among top three most polluted cities in the Balkans. This is the key environmental issue. Sustainable production is listed among most important modernization processes. The following areas bear the biggest potential for improvements:</p> <ul style="list-style-type: none"> <li>• Energy consumption. Mostly fossil fuels are consumed. Opening new food production facilities are generally followed by energy efficiency projects. Creditors are supporting companies with special credit lines.</li> <li>• Sustainable food production means less resource consumption and responsible production, so this has huge impact on future in terms of environment protection.</li> <li>• Water supply is the basic resource for agricultural and food production and needs to be used in an efficient and sustainable manner</li> <li>• There are no high levels of air pollution and GHG emissions throughout the sector, however, it is estimated that companies in the sector will shift towards greener energy production and exchange of current ways of energy supply towards renewables. VC impact on biodiversity is low.</li> <li>• Global warming and related climate changes, together with water demand strongly affect the soil productivity. The agricultural VC is vulnerable to climate changes.</li> <li>• To lower the impact on the VC, smart agriculture interventions should be selected on the case-by-case basis.</li> </ul> <p>Reducing food losses in climate-smart ways, i.e. ways that reduce or remove GHG emissions while improving food security, and increasing local capacities to adapt to climate change, is contingent upon the development and uptake of sustainable technologies along the entire value chain<sup>9</sup>, particularly in post-harvest operations and during processing and storage.</p>
	Impact of the environment on value chain functions (Low) vulnerability of the value chain to	<p>Impact on the VC in food production in terms of rising temperatures, reduced rainfall is strong, but controllable as the total size of the industry is low comparing to other markets.</p> <p>To lower the negative impacts of climate change, key region food companies are adaptive and willing to initiate networking for change with local producers and become role models for more sustainable production.</p>

<sup>9</sup> <http://www.fao.org/3/i6583e/i6583e.pdf>

	(degraded) environment and climate change.	
	Green opportunities	<p>The potential in the VC for green economy is detected mainly among secondary agricultural producers, implementing small scale green economy projects as part of their own production. These projects are widely supported by financial institutions.</p> <p>The potential in VC in terms of compensating GHG emissions is shifting to more carbon free energy sources, as most key companies in the sector are willing to implement energy efficiency programs as part of their long-term business strategies.</p> <p>The energy consumption from non-renewables is dominate but renewables are on the rise; the region registers strong foreign investments from German company WPD (2021) that invests 500 million in wind park in Kumanovo/St. Nagoricane. The level of GHG emission is especially high in NE region. Developing business services with low levels of GHG emission is still a concept to developed, however, there are few positive examples from companies through the NE region.</p>
SOCIAL	(Prospects for) Inclusion of disadvantaged groups (poor, women, youth, refugees, minorities, handicapped, ...)	<p>Gender mainstreaming is significant issue in agricultural sector, as large portion of all employed are woman doing blue collar job. The barriers disadvantages groups are facing are high and sometimes there is even no access to the labour market, stigmatizing and gender related barriers. The barriers to enter the VC for disadvantaged groups are driven by the market demand. With specially designed programs from ESA and international donor community in the country, the barriers are slowly moving in positive direction.</p> <p>Certain support for defining improved business concepts taking into account the basic social rights are developing fast in the region. In few cases only disadvantaged groups control assets, equipment, and sales income. There are some social entrepreneurship examples through the region, but with low or limited impact on the social issues that are dominating. Social inclusion in businesses in the region is secured through national policies implemented by ESA and with support of the donor community. Achieving necessary skills is achieved through educational programs specially designed to vulnerable groups are being implemented by BSO's and local institutions.</p> <p>To have maximum impact, climate-smart, food-saving technologies should also be gender-sensitive and generally socially acceptable. Women often have limited access to technologies and services, which is an important contributor to food losses in the supply chain.</p>
	Impact of the value chain on surrounding communities	<p>Individuals, workers or communities have access to grievance mechanisms in case of human rights violations and they are: the trade union, the Ombudsman and NGO's dealing with human rights violation issues.</p> <p>Some basic human rights in VC are especially affected: the right to work in just and favourable conditions the right to social protection, to an adequate standard of living and to the highest attainable standards of physical and mental well-being; It's been reported that social protection rights are misinterpreted by the managers in the industry –mostly in favour of the employers.</p>



INSTITUTIONAL	Evidence of private sector, government and/ or donors having plans for investment in the value chain	<ul style="list-style-type: none"> <li>• The government is supporting policies to support food producers. USAID, SIPPO, IME and other donors have supported local producers in the amount of several tens of millions. SIPPO runs specially devoted programs to support export of natural products and better access-to-finance for targeted companies in the supply chain.</li> <li>• National IPARD program for support of agriculture and rural development offers possibilities to existing Agricultural Cooperatives. Through EBRD, SME have possibilities to join competitiveness support program “Building competitive SME’s in Macedonia”.</li> <li>• “Creating Job Opportunities for All in Macedonia”, by SEC 11/2022 to 12/2028. This project will facilitate employment for vulnerable groups, by introducing appropriate active labour market measures, improving the capacities of responsible stakeholders to coordinate employment measures, and sensitizing and incentivizing the private sector.</li> <li>• Project ‘Makedonija vrabotuva’ is active and has supported around 3’000 people in NE.</li> <li>• USAID supports investments in agriculture through Business Ecosystem Project. CBC Serbia-North Macedonia project offers opportunities for agricultural producers in underdeveloped regions.</li> <li>• The socio-economic unit is planning to improve one-stop-shop system and ease the administrative burdens to open businesses, especially in the zones. Exemption from communal taxes is made on case-by-case projects.</li> <li>• Some municipalities have agreed to support new manufacturing sites by exempting businesses from communal taxes. Plots are generally being sold on public auctions. Direct negotiations are possible.</li> </ul>
	Sector (promotion) policies and regulations are in place and effective	<p>Agency for Financial Support in Agriculture and Rural Development for the purpose of successful implementation of the measures under agriculture policy and rural development policy in the Republic of North Macedonia. Hence, it provided efficient management of the funds under the both the Budget of Republic of Macedonia and the EU pre-accession assistance for rural development.</p> <p>Ministry of Agriculture, Forestry and water Economy provides institutional support through several specialized agencies, such as National extension agency.</p>
	Chain actors / government / donors / support organizations’ readiness to change, to collaborate and to align interventions	In theory, chain actors are open minded for exchange and cooperation, but on the ground chain actors are lacking proper business networking. All international donors are willing to sync programs to increase the success of the projects in general. Support organizations are ready to collaborate in terms of data sharing, but the capacities to include staff for the general benefit are limited. At the moment, conflicting donor/government intervention strategies which may affect the impact of the program have not been detected. The intervention is complemented with other national initiatives.
	Feasibility of the intervention	FAO has published the ‘Regional Initiative on empowering smallholders and family farms. Bigger food production companies in the region are working closely with farmers and support them financially with loans to grow. The initiative is tested and validated on the ground. According to available sources and strategic documents, there is a clear need to support the Macedonian rural communities in an integrated approach – bringing together different initiatives to boost rural areas – through such things as support to value chain development, improved organization, intensified and sustainable production, and improvements in agricultural infrastructure.

Dimensions	Textile and leather industry	
	Key Criteria	Key Criteria findings
ECONOMIC	Market demand prospects (local and/or export)	<p>The leather, textile and garment industry are one of the most developed economic sectors in Macedonia, with over 1'500 companies actively involved at various levels of production. The industry employs 50'000 workers and produces over EUR 40 Million worth of exports, contributing to a total of about 2.4% of GDP<sup>10</sup>. It is estimated that around 5% (around 6'000) are workers in NE region, and similar in leather industry. Companies within this industry have made products for a large number of well-known worldwide brands. The competitive advantages of the leather, garment and textile Industry include:</p> <ul style="list-style-type: none"> <li>• Short periods from orders to delivery</li> <li>• High quality of performance at attractive costs and strong connections with EU markets</li> <li>• Good transport and logistics services</li> <li>• Convenient geographic location and favourable economic conditions</li> </ul> <p>The NE region has long tradition in leather products and shoes. The total export (leather) in the country is EUR 68.1 Million, that is only 0.4% of total countries export. The total import of leather is EUR 110 million, so there is a trade deficit of 42 million. Over 90% of all leather manufacturers are companies producing shoes. The shoes production business is EUR 20 million. It is estimated that around 40% of the total shoes export comes from Kumanovo region (EUR 8-10 million). In Kumanovo only, there are around 50 companies specialized in shoes production, mainly working for Italian market.</p> <p>The potential of the industries is in improved production lines and companies are aiming to start own labelling for the global markets. Both industries are lacking skilled labour and offering solid (starting) employment possibilities for young population especially.</p>
	Opportunities for employment creation	<p>Skilled labor is one of the industry's main strengths. The industry employs about 35'000 workers which makes up approximately 32% of all employees in the manufacturing sector. There are over 1'100 registered entities in the production of textiles and wearing apparel.</p> <p>When it comes to NE approximately 60-70% of all textile companies are based in the region. In K. Palanka region alone there are 700 workers in the industry<sup>11</sup>. When specific business opportunities are opening, the total cluster could generate a pool of around skilled 5'000 workers. The most important export destination is Germany with more than 63,7% of exports from total.</p>

<sup>10</sup> <http://macedoniantextiles.mk/index.php/about-textile-industry/about-macedonian-textile-industry>

<sup>11</sup> Personal interview.

		As for shoes industry, the total people working in the industry is 1'500. Almost 95% of all production is exported. There is permanent and rising demand for workers in the targeted industries.
	Comparative advantage of production Level of competitiveness (in comparison to competing producers)	<p>Skilled labour is one of the industry's main strengths. The region has potential not only for new foreign direct investment, but also for outsourcing, strategic alliances and joint ventures with many well-established domestic companies. Most comparative advantages are:</p> <ol style="list-style-type: none"> <li>1. Short periods from orders to delivery</li> <li>2. High quality of performance at attractive costs</li> <li>3. Good transport and logistics services</li> <li>4. Convenient geographic location and favourable economic conditions.</li> </ol> <p>Most of the companies in textile industry are located in Eastern part (Stip, Kocani and Delcevo 50%), however companies in the NE region are part of the value chain and often work as subcontractors for companies in Stip. This is mainly due to lack of ability to join forces and concentrate jointly in order to be able to get large volume deals. The clusters in the region are weak and small companies (10-50) are merging for bigger deals, however, most of the added value factor is being produced in other parts. For this reason, companies able to join forces will be able to add more value for themselves and for the region.</p> <p>As for the leather industry, the situation is similar, but Kumanovo has tradition and strong export potential due to the fact the shoe industry has historically been part of the business tradition even in the Yugoslavia times (some of the largest companies are from NE region). Nearshoring as a new trend in EU countries is offering potential for companies to shift from CMT to more added value production, as currently the industry is highly labor intensive.</p> <p>The net salary in average is EUR 260,00. The industry is dominated by employed women in more than 99% of all employees.</p>
ENVIRONMENTAL	Impact of the value chain functions on the environment	<p>Both textile and leather are listed in North Macedonia under Non-polluting industries. Textile and leather industry in general are among industries that create certain environmental issues when it is large scale. In North Macedonia and in NE region, these concerns are limited due to small volumes and relatively high awareness among textile managers, with some exceptions referenced to water pollution. Impacts of VC functions can be lowered through cross sectoral cooperation with all stakeholders, including academia, NGO sector and clusters.</p> <p>One such example is potential created through other projects in relation to improving environmental practices and promotion of sustainable fashion in the region of Stip, but activities will be also taking part in NE region, as targeted managers are throughout the Kriva Palanka and Kumanovo region.</p> <p>Another positive potential on the impact of the value chains on environment is that as markets are demanding greater ethical commitment from supplier side, meaning companies in the region will have to adjust and shift towards more greener ways of manufacturing in order to get deals from EU customers.</p>

		<p>The textile and leather chain are driven by the imported resources from EU, Turkey and China. Sustainable production is important for companies, but the business models are niche production and pricing is what defines the business.</p> <p>In terms of energy consumption, mostly fossil fuels are consumed. Opening new production facilities are generally followed by energy efficiency projects. Creditors are supporting companies with special credit lines.</p> <p>Sustainable food production means less resource consumption and responsible production.</p> <p>There are no high levels of air pollution and GHG emissions throughout the sector. VC impact on biodiversity is low.</p>
	Impact of the environment on value chain functions (Low) vulnerability of the value chain to (degraded) environment and climate change.	<p>The climate impact of the global apparel industry is substantial, with over 3.3 billion metric tons of greenhouse gases emitted across the value chain per year<sup>12</sup>.</p> <p>The energy intensive textile production stages account for the majority of the climate impact In North Macedonia however, on average, there are 167 sunny days in the country (similar estimate for the region).</p> <p>The region has favourable climate conditions for production of energy from alternative sources. Climate conditions offer possibilities to include usage of alternative energy in different manufacturing processes in line with the EU green deal.</p>
	Green opportunities	<p>Sustainable fashion. Recycling and reusing material are becoming part of the business culture, however, the managers in the sector require additional capacity building for this issue.</p> <p>Greening opportunities are big in lowering usage of raw materials that have substitutes.</p> <p>Replacement of fossil fuels with sustainably produced energy</p>
SOCIAL	(Prospects for) Inclusion of disadvantaged groups (poor, women, youth, refugees, minorities, handicapped, ...)	<p>Social protection is huge issue in textile and leather industry in NE region and in the country in general. The industry is dominated by gender disbalance and majority of employed are women (more than 99%). Low wages are the biggest problem, however, this started to move in positive direction in the last years due to national legislation changes.</p> <p>Textile industry is offering employments for disadvantaged groups through specially designed programs on national level (through respective ministries and international donors). Refugees and migrants are not registered in any sense.</p>

<sup>12</sup> [https://www.oneplanetnetwork.org/sites/default/files/unep\\_sustainability\\_and\\_circularity\\_textile\\_value\\_chain\\_1.pdf](https://www.oneplanetnetwork.org/sites/default/files/unep_sustainability_and_circularity_textile_value_chain_1.pdf)

	Impact of the value chain on surrounding communities	<p>Suppliers are mainly in foreign countries. There are some perspectives in relation to waste usage and how this affects local value chain depending on clear water, but this is small scale.</p> <p>Surrounding business communities can benefit from taking advantage of waste as a resource in order to start manufacturing recycling garment and textile related products.</p> <p>By increasing employment and salaries the local economy can profit from more spending therefore initiating a positive cycle.</p>
INSTITUTIONAL	Evidence of private sector, government and/or donors having plans for investment in the value chain	<p>There are supporting activities registered by donor community in Macedonia, mainly through USAID, SECO and SDC, partnering with national institutions. SIPPO targets textile industry with specially devoted program to support investments and supply chain development.</p> <p>‘Business support activities for the apparel sector in North Macedonia’ Topics include:</p> <ul style="list-style-type: none"> <li>• Introducing support service for implementation of social standards</li> <li>• Develop PR mechanism for restoring the positive image of the apparel sector.</li> <li>• Increase number of BAs in the club and raise their capacity for making smart investments and</li> <li>• Improve investment readiness of startups</li> <li>• Apart from that, there are some private initiatives to gain financial support to improve parts of the Value chain.</li> </ul>
	Sector (promotion) policies and regulations are in place and effective (keep it)	<p>Regulations for determining the names and composition of raw textile products based on Article 20, paragraph 1, item 5 of the Law on product safety, including:</p> <ul style="list-style-type: none"> <li>• First Rules for determining the composition and raw textile names, (Official Gazette of RM.br.33/06)</li> <li>• The second Rules of procedure for selection of methods for quantitative analysis of binary textile fiber mixtures, (Official Gazette of RM.br.33/06)</li> <li>• The third Rules of procedure for selection of methods for quantitative analysis of ternary textile fiber mixtures (Official Journal of RM.br.33/06).</li> <li>• Many women work in North Macedonia’s textile and leather industry under good circumstances. Main clients send independent teams to evaluate and assess working conditions. There are no negative reports, there is no report of forced labor, child labor does not exist, and minorities are well included as part of the staff in almost every textile factory in the region it is therefore assumed that the actors comply with the standards and the policies.</li> </ul>
	Chain actors / government / donors / support organizations’ readiness to change,	<p>Positive development affecting changes are registered among key stakeholders.</p> <p>There are donor programs with activities supporting improvements of production processes, however this is only limited. Targeted interventions for a change of production processes and modernization are welcomed among producers. The image is low, not attractive for younger population to join, although it is a decent work for youngsters.</p>

	to collaborate and to align interventions	The industry also requires better networking and actor's collaboration; and own labeling strategies to enter new markets. As for the moment, all local donors have some projects for addressing burning issues, but none of them are tailor made for the region and structured around adding value factor.
	Feasibility of the intervention	<p>As number one export industry in the region, shoes industry is sort of a benchmark for the NE. There is huge potential to shift towards more added value production and towards offering creatives to build brands.</p> <p>Intellectual Property as an area to develop is offering opportunities for increased profit as designs of the products (shoes) is now outsourced and can be inhouse – with additional capacity development, however existing know how is strongly in favour of targeted interventions therefore making interventions in this value chain feasible.</p>

Dimensions		
	Key Criteria	<b>Manufacturing in North-East region</b> <b>Key Criteria findings</b>
ECONOMIC	Market demand prospects (local and/or export)	<p>Manufacturing businesses are dominating the labour market and creating added value in terms of continues technological improvements of production processes and innovations. There are 1'130 of those companies in the country, the estimate is that around 10% belong the NE region. The most of companies belong to metal processing and machine manufacturing. As for the automotive sector, in the last 12 years the number of companies is on the rise from zero to 43, most of them Tier 2 and Tier 1 OEM's – tenants in the TIDZ. Due to proximity to Kumanovo, Skopje zones 1 and 2 are playing important role in attracting investments and employing workers from municipalities in the North-East, especially regions of surrounding Kumanovo.</p> <p>The manufacturing sector produces over EUR 2 billion worth of exports. There is no data how much of this belongs to NE region, but it is estimated that around 10-15% of the total export comes from Kumanovo region. Manufacturing companies in the region have strong competitiveness in terms of working for global customers and <i>Fortune 500</i> companies. In absence of data divided per regions, the estimate is that the potentials for the companies in the manufacturing industry is strong and the total value of the industry (all manufacturing) is several billions. Only automotive industry is rising 40% per year on national level.</p> <p>The potential of the manufacturing is detected in all parts of the value chain, especially in terms of supplying the production facilities in automotive industry. Machine and automotive manufacturing are the fastest growing sectors in the country from EUR 69 million (2015) to EUR 180 (2019), that is 40% per year.</p> <p>Demand for skilled workers is on the rise and as registered in the specialized schools in Kumanovo (request for tailor made programs from foreign manufacturing companies), the demand for workers in the sector will grow year by year.</p>
	Opportunities for employment creation	<p>The automotive, machine, electrical components manufacturing as industries employs 48'000 workers (national level) and the number is growing year by year. According to interviews conducted with business community, also based on projections based on available national studies, it is estimated that in the country, the opportunities for new job creation is 4'000 to 5'000 per annum.</p> <p>When it comes to the NE region, there are 158 export-oriented metal processing manufacturing companies, out of which roughly 30 are in the NE. The manufacturing sector in the NE region employs 10'685 people in 2020. Officially, the total working population in the NE region consists of 43'415 people.</p>



		<p>The targeted sector is very important for the region of NE especially seen from perspective of the fact one manufacturing (in automotive mainly) job opens three new in real sector<sup>13</sup>.</p> <p>Opportunities for new jobs are enormous comparing to other industries and sectors (e.g. the new <i>Dräxlmaier</i> factory in Kumanovo employees 700 new workers. The estimate is that around 1'000 newly generated employments can be established per year).</p> <p>In terms of gender balance, the manufacturing sector employs slightly more female employees (5'522) versus males (5'162).</p>
	<p>Comparative advantage of production</p> <p>Level of competitiveness (in comparison to competing producers)</p>	<p>Skilled labour is one of the industry's main strengths. Due to available and fast adjustable labour at competitive prices, the region has potential not only for new foreign direct investment, but also new investments from local companies generating growth in the two zones: '<i>Novine Recica</i>' and '<i>Dobroshane</i>'</p> <p>Here list of the other most important competitive advantages for the industry:</p> <ul style="list-style-type: none"> <li>• Time to market</li> <li>• Proximity to EU markets (in less than 24 hours goods arrive to their end destination in EU)</li> <li>• Good positioning and closeness to ports of Durres and Thessaloniki and on the corridor X</li> <li>• Developed automotive manufacturing industry and presence of globally proven OEM and multinationals</li> <li>• Tradition in industrial, machine and automotive manufacturing</li> </ul> <p>Most of the companies in manufacturing are in Kumanovo region, however, there are tentants located throughout all six municipalities in the region, mainly Kriva Palanka, Kratovo and Staro Nagoricane.</p>
ENVIRONMENTAL	Impact of the value chain functions on the environment	<p>Existing companies in the value chain (OEM's, Tier 2 producers) will take advantage from implementing new ways and innovations to allow products to be produced by using less fossil fuel resources. Circular economy becomes a standard for the international companies present in the region and in the country; for some local companies the opportunity to impact the environment and invest in greening their business represents an added value factor, as waste materials are not utilized and used as basic resource.</p> <p>This expect to be changed with targeted interventions. Currently, most suppliers for local manufacturers are based globally. There are some perspectives in relation to waste usage and how this affects local value chain.</p> <p>To meet climate change agreements, companies will need to cut their greenhouse gas emissions by more than 90 % by 2050. This is also valid for North Macedonia and the region. There are areas where local companies can help to reduce the environmental impact of the supply chain is through the smart use of new technology.</p>

<sup>13</sup> <https://www.es.kearney.com/automotive/article/?a/the-contribution-of-the-automobile-industry-to-technology-and-value-creation>

		<p>Reduce fossil fuel consumption and ethical sourcing is becoming a standard even for some companies in the NE (implementation of energy efficiency project photo voltaic in <i>Bucen Kozjak</i> exm.).</p> <p>As per national Law, in the industrial zone is forbidden to produce goods that are not obeying the basic rules of clean and non-polluting industries. Throughout the VC, impacts of the environment are controllable as per national legislation.</p>
	Impact of the environment on value chain functions (Low) vulnerability of the value chain to (degraded) environment and climate change.	<p>The region has favourable climate conditions for production of energy from alternative sources. Climate conditions offer possibilities to include usage of alternative energy in different manufacturing processes in line with the EU green deal. Sustainability across manufacturing and automotive industries, impacts the VC chain functions in different ways:</p> <ul style="list-style-type: none"> <li>• Sustainable R&amp;D involves designing products to reduce environmental impact and optimizing the use of natural resources by ensuring their recyclability.</li> <li>• Product sustainability involves moving to fuel-efficient or electric vehicles and biodegradable components<sup>14</sup>.</li> <li>• Sustainable supply chain includes adoption of environmentally conscious operations in logistics, distribution, warehousing and inventory management etc.</li> </ul>
	Green opportunities	<ul style="list-style-type: none"> <li>• There are 700'000 tons of (hard) waste produced in the country, officially. Including the illegal dumpsites, it is estimated of this number to double.</li> <li>• With support of selected projects, companies will be able to invest additionally in environmentally friendly technologies. This is part of the <i>EU green deal</i> and <i>green agenda</i> in the Balkans. Companies will invest in energy efficiency projects (for instance solar, exchange of current fossil fuel energy systems).</li> <li>• Manufacturing companies will be involved in waste management of commercial and industrial waste management.</li> <li>• The recycling market for plastic in the region will be developed. Positive examples of <i>Pakomak</i> cooperating with large companies in the region will boost the idea of recycling as basic economic activity to selected companies.</li> <li>• Some examples of early-stage recycling companies in the region (<i>Uno Produkt</i> exmp.) are registered. Those along with larger companies in the manufacturing sector are creating coalitions and adding value for the business and the environment in the same time. Additional support through donor technical support and related mechanisms (Just transition mechanism) are available, this especially in terms of energy efficiency projects (buildings) and in the area of industry (in EU only 12% of the materials are used again). In N. Macedonia this percentage is estimated even lower.</li> </ul>
SOCIAL	(Prospects for) Inclusion of disadvantaged groups (poor, women, youth, refugees,	<ul style="list-style-type: none"> <li>• Disadvantaged groups have been part of the national strategies for social inclusion for years. Also, the donor community in the country and the respective ministries have managed to create solid institutional ground for involving these communities in business life by offering subventions and tailor-made programs for companies that are supporting those groups. In the manufacturing sector, this is even more focused as the demand for workers is big. Gender mainstreaming is promoted through support projects for women entrepreneurship, however, mostly on</li> </ul>

<sup>14</sup> <https://www.capgemini.com/gb-en/wp-content/uploads/sites/3/2020/03/Report-The-Automotive-Industry-in-the-Era-of-Sustainability.pdf>

	minorities, handicapped, ...)	<p>national level. Still, there is a strong basis for inclusion of disadvantaged groups into the sector with joint work with respective institutions.</p> <ul style="list-style-type: none"> <li>• Employment service agency provides incentives for companies to employ disabled people.</li> <li>• In the NE region, there are positive examples of companies being incentivized for employing disabled groups of workers.</li> </ul>
	Impact of the value chain on surrounding communities	<p>There is signed agreement between the municipality of Kumanovo and Ministry of Local self-governance for integration of Roma in the value chains. It is a local strategy, created as a result of previous documents (strategies and feasibility studies). It foresees active measures for employment of Roma community in the B2B. In the last 2 years, the number of new employees in the private sector is increasing as a result of this program.</p> <p>Selected groups of communities are being directly affected from investments in manufacturing sector. Roma community in the region enjoy strong potential for starting new jobs in production. There are couple of BSO's with strong portfolio to offer tailor made programs for involving this community in the process. With tailor made joint projects, some businesses can benefit from taking advantage of combining social and environmental dimensions – for example: waste as a resource in order to start manufacturing recycling products, as there are registered possibilities to work on decrease of energy use, but also including the social component as an added value. This can be promoted through specialized providing trainings about possibilities to get funding through available mechanisms for social inclusion and as part of the EU Green deal.</p>
INSTITUTIONAL	Evidence of private sector, government and/or donors having plans for investment in the value chain	<p><b>National</b></p> <p>The government and the local institutions responsible for attracting FDI are having detailed strategies and budget work on planning the investment for supporting growth. There are also supporting activities registered by donor community in Macedonia. Under the Law, domestic and foreign investors both receive same package of subventions to manufacture in the zones. In B2B context, existing companies that are producing have strong role in attracting additional production facilities due the business networking nature.</p> <p>The SME Competitiveness Support Programme<sup>15</sup></p> <p>The Western Balkans Investment Framework (WBIF)<sup>16</sup></p> <p>The Smart Specialization Strategy</p> <p>Local support</p> <p>One of the agencies dedicated to entrepreneurship development in the country is APPRM<sup>17</sup>. The agency's primary purpose is to implement the government policies for SMEs and other related projects/programs adopted by the Government to support entrepreneurship, competitiveness, and innovation.</p>

<sup>15</sup> <https://web-sme-csp.com/republic-north-macedonia/en/>

<sup>16</sup> [https://wbif.eu/storage/app/media/Library/1.%20Governance/WBIF%20at%20a%20Glance\\_May2020.pdf](https://wbif.eu/storage/app/media/Library/1.%20Governance/WBIF%20at%20a%20Glance_May2020.pdf)

<sup>17</sup> <http://apprm.gov.mk/default.aspx>

	<p>NCDIEL<sup>18</sup> is being developed under the recommendations of the South-East Europe Co-operation of Innovation and Finance Agencies project. This network seeks to strengthen the capacity to effectively provide innovative, technological, and financial support to micro, small and medium enterprises.</p> <p>FITD Co-financed grants for newly established start-ups and spin-off companies. In the South-West region there only 17 supported manufacturing projects (10,56% from all the manufacturing supported projects). Only 2 in the NE region.</p> <p><b>The European Union Funding</b></p> <p>Besides the domestic supply of finance, the EU funding is also an available and very important support for the Macedonian ICT companies. The European Commission has set up an Executive Agency for Small and Medium-sized Enterprises EASME<sup>19</sup>, is the most important agency to monitor all events, as it coordinates projects (COSME, SME Instrument, EIC Fast Track to Innovation, Horizon 2020 INNOSUP, etc.) and initiatives that are of major importance for financing, grants, and support to SMEs and organizations that mediate between companies and European agencies.</p>
Sector (promotion) policies and regulations are in place and effective	<ul style="list-style-type: none"> <li>• Industrial Strategy of the Republic of North Macedonia (2018-2027)<sup>20</sup></li> <li>• Industrial Strategy with a focus on the Manufacturing Sector<sup>21</sup></li> <li>• Economic growth plan<sup>22</sup></li> <li>• National Strategy for Small and Medium Enterprises (2018-2023)<sup>23</sup></li> <li>• National Strategy for Sustainable Development (2009-2030)<sup>24</sup></li> </ul>
Chain actors / government / donors / support organizations' readiness to change, to collaborate and to align interventions	<p><b>Government institutions</b></p> <ul style="list-style-type: none"> <li>• Technological Industrial Development Zones (TIDZ). Responsible for signing contracts with new investments in the Zone around country.</li> <li>• Deputy Prime Minister in charge of economic affairs, Ministry of Economy, Invest North Macedonia<sup>25</sup>, Agency for Promotion of Entrepreneurship, Fund for innovation and technological development.</li> <li>• Local governance support of manufacturing businesses is done through <i>One-Stop-shop</i> office in the Municipality of Kumanovo (for whole region). Additional capacity building and targeted interventions is required. LED offices in other municipalities serve as primary point of contact for licensing and locations overview, also for networking and matching with existing investors.</li> </ul>

<sup>18</sup> <https://ncdiel.mk/homepage/>

<sup>19</sup> <https://wayback.archive-it.org/12090/20210412123959/https://ec.europa.eu/easme/en/#pillar-smesupport>

<sup>20</sup> <https://www.economy.gov.mk/doc/2581>

<sup>21</sup> <https://konkurentnost.mk/index.php/download/industrial-strategy-with-a-focus-on-the-manufacturing-sector-republic-of-macedonia-june-2018/?wpdmdl=4574>

<sup>22</sup> <https://vlada.mk/PlanEkonomskiRast>

<sup>23</sup> <https://economy.gov.mk/Upload/Documents/Strategija%20za%20MSP%20-%20finalna%20verzija%2003%2004%202018%20.pdf>

<sup>24</sup> <https://www.moepp.gov.mk/wp-content/uploads/2014/12/Nacionalna-Strategija-za-Odrziv-Razvoj-vo-RM-NSSD-Del-1.pdf>

<sup>25</sup> <https://investnorthmacedonia.gov.mk/>

		<b>Business Associations</b> <ul style="list-style-type: none"> <li>Economic Chamber of North Macedonia<sup>26</sup>, Macedonian Chambers of Commerce<sup>27</sup>, The Macedonian Association of Processors<sup>28</sup>, Textile Trade Association<sup>29</sup>, Small Business Chamber<sup>30</sup></li> </ul> <b>Donor community</b> <ul style="list-style-type: none"> <li>EUD to the Republic of North Macedonia, SIDA, GIZ, UNDP, USAID, SECO, JICA, Norwegian Aid.</li> </ul>
	Feasibility of the intervention	<p>The following interventions were deemed to be feasible and suited to integrate in the value chain:</p> <p>EBRD - a dedicated EBRD-EU programme to the country. The new initiative combines credit lines, investment incentives and technical assistance (EUR 30 million, shared among several local banks). The funds will be accompanied by a package of technical assistance and incentive grants totalling to €4.5 million from the EU national Instrument for pre-Accession Assistance (IPA).</p> <p>IFC Program to Support Manufacturing Sector in North Macedonia. The partnership is part of a larger effort by IFC to create jobs, increase domestic exports, and drive economic development in the Western Balkans region. It will provide advice to local small- and medium-sized companies, helping them to improve their operations, get access to finance, and make connections with firms in the Eurozone.</p> <p>Macedonian Manufacturing Expo is North Macedonia's premier business-to-business matchmaking event for the light manufacturing industry. It brings together foreign and domestic buyers with local suppliers through pre-matched, targeted and deal-oriented B2B meetings that lay the foundations for future partnerships and more efficient supply chains.</p>

<sup>26</sup> <https://www.mchamber.mk/default.aspx?mid=1&lng=2>

<sup>27</sup> <https://chamber.mk/>

<sup>28</sup> <http://www.map.org.mk/index.php/en/>

<sup>29</sup> <https://tta.org.mk/en/>

<sup>30</sup> <http://www.sbch.org.mk/>