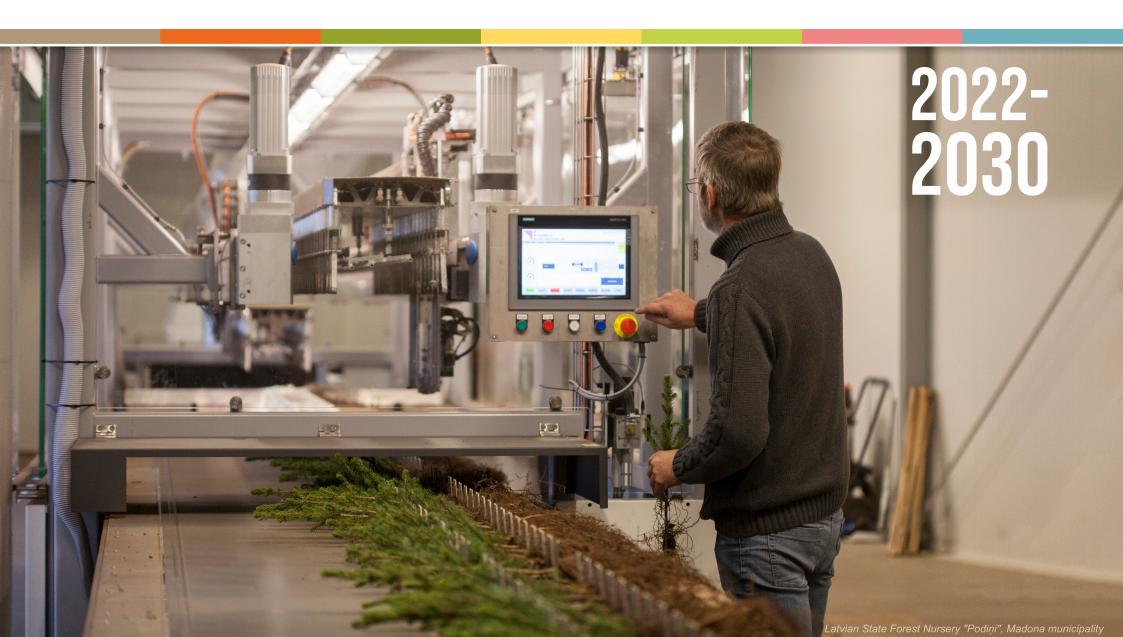


VIDZEME PLANNING REGION

SMART SPECIALISATION STRATEGY





Strategy developer: Vidzeme Planning Region.

Strategy update period: October 2021 – March 2022.

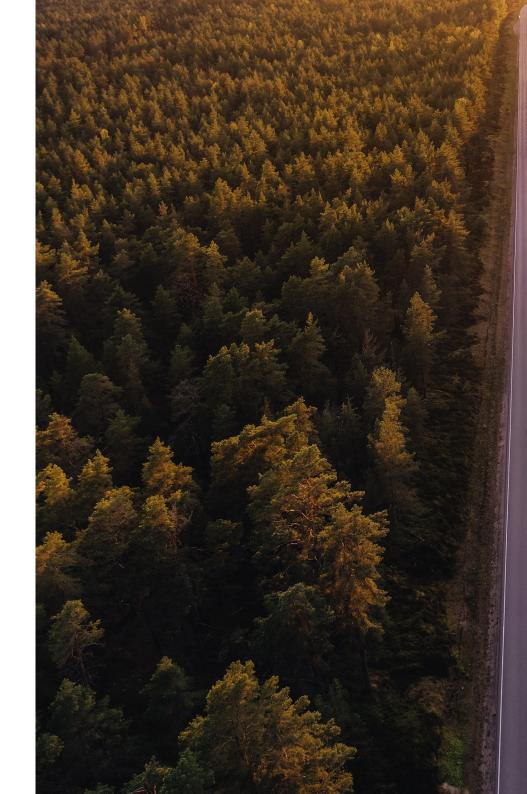
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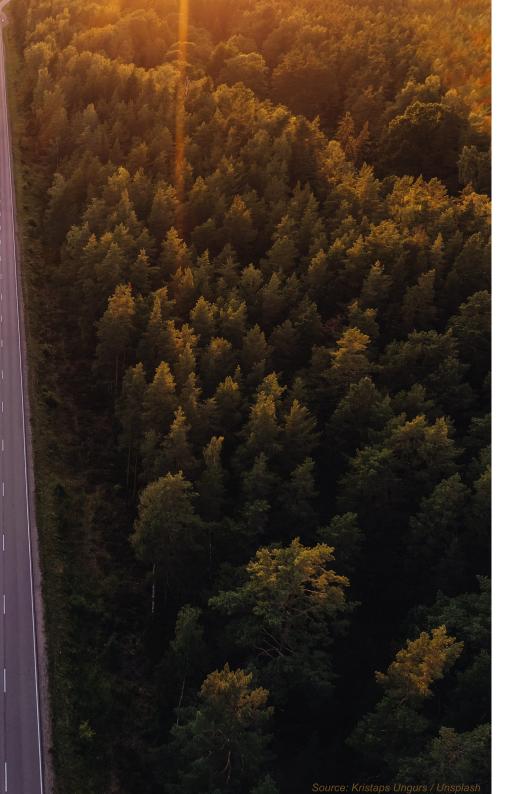
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Smart specialisation strategy (also Research and Innovation Strategy for Smart Specialisation – RIS3) is a research and innovation strategy for the transformation of the national economy to provide higher added value and greater resource efficiency, which includes for the constant finding of competitive advantages, the selection of strategic priorities and the creation of policy instruments that maximise knowledge-based development potential of the country and promotes sustainable economic development.¹

The European Commission has encouraged all regions of the European Union to develop and implement a <u>research and</u> innovation strategy for smart specialisation.

The smart specialisation of the Vidzeme planning region (hereinafter referred to as Vidzeme) is a strategy for the purposeful transformation of the region's economy to provide higher added value, productivity and more efficient use of the region's resources. The strategy covers the period until 2030.

THE SMART SPECIALISATION STRATEGY HAS THREE MAIN PILLARS:

- Priority is given to investments in research, technological and knowledge development and development of innovations in the region. This priority supports strategic structural changes in the economy, which are based on the strengths of the Vidzeme region and respond to new opportunities;
- The strategy determines which economic sectors to prioritise based on the innovation ecosystem in the region, which includes businesses, governance, research organisations/universities and civic organisations;
- The strategy defines the directions of action and support that must be developed to promote smart transformation.

Vidzeme's smart specialisation strategy is closely related to the current level of economic development and existing and potential competitive advantages.

The success of smart specialisation is measured as:

- 1) research and development (hereinafter referred to as R&D) investments as a percentage of gross domestic product;
- 2) the overall increase in the number of R&D jobs in the region, especially in private companies.

At the same time, an important indicator of smart specialisation is the dynamics of the development of the added value produced by the region, which has been determined as the basic indicator of the development of smart specialisation in Vidzeme.

The basic idea of the strategy is to concentrate the limited resources to ensure the growth of innovation capacity in the areas of knowledge and innovation in which Vidzeme's economy has the greatest growth potential.

Smart specialisation is the horizontal principle of the Sustainable Development Strategy 2030 of the Vidzeme planning region, which is also observed in the implementation of the Development Programme 2022–2027 and foresees that Vidzeme will focus primarily on promoting the development of areas of smart specialisation, ensuring the compliance of actions in all priority areas.

Available at: https://www.izm.gov.lv/lv/viedas-specializacijas-strategija

¹ Ministry of Education and Science.

STRATEGIC GOAL

THE GOAL OF THE VIDZEME'S SMART SPECIALISATION STRATEGY IS TO INCREASE THE ECONOMIC CAPACITY OF THE REGION, AS WELL AS TO CREATE AND STRENGTHEN THE INNOVATION that promotes and supports technological progress in the region's economy, ensuring the region's added value in the Latvian economy in the amount of 10% by 2030, compared to 6.62% in 2019.²

The overarching task of the smart specialisation strategy until 2030 is the identification and determination of permanent comparative competitive advantages, the selection of strategic priorities, and the creation and implementation of such policy instruments that maximally unleash the region's knowledge-based development potential and promote its sustainable economic development.

IKR020. Added value and its structure in regions and cities of the republic by types of activity in 2000–2019

THE TASKS OF THE VIDZEME'S SMART SPECIALISATION STRATEGY ARE:

- to increase the economic and innovation capacity of the Vidzeme region by creating, supporting, and stimulating target-focused investment, entrepreneurship and research-promoting instruments in the public and private sectors in the region;
- 2 to develop research and innovation in the strategic priority sectors of smart specialization of the national economy of Vidzeme, promoting appropriate target-focused and mutually complementary investment instruments;
- to promote the transfer and absorption of public and private research results, knowledge and technologies in the strategic priority smart specialisation areas and sectors of the region;
- to stimulate the production of more technologyintensive, higher added value and export potential products and services in the region and their inclusion in higher levels of global value chains;
- **to regularly assess** the effectiveness of the set goals and achieved results of the economic smart specialisation of the Vidzeme region and, if necessary, to **make corrections**.

Vidzeme has set a goal – to achieve higher productivity and create products and services with high added value in demand in global markets. To ensure faster and more successful development, the structure of the economy in the region should be changed in favour of a greater capacity for knowledge, including technology and export.

Vidzeme's smart specialisation strategy envisages promoting incentives to change the behaviour of companies, organisations, institutions, and research organisations in favour of research, development, and innovation activities, as well as changing the conditions of the economic environment, so that these changes pay off in the economy of Vidzeme and Latvia.

² Central Statistical Bureau, Share of the added value by types of activity in regions, where the share of the added value by types of activity in the Vidzeme region is 6.62% in 2019. Available at:

Based on the EU and Latvia's common long-term economic development strategies binding on the region, including the EU's strategic development vision 2050, the development strategy for future trends in the EU's rural regions and the evaluation of the economic situation of the Vidzeme region in recent decades, as well as several discussions and expert surveys, the economic specialisation priorities of the Vidzeme region have been identified.

THE SMART SPECIALISATION SECTORS OF THE VIDZEME REGION HAVE BEEN SELECTED CONSIDERING THE FOLLOWING FACTORS AND CRITERIA:

- resources available to the region in priority economic sectors;
 - existing business excellence (in terms of added value and export capacity) and related accumulated knowledge;
- the region's historically higher share of competencies, access to knowledge, the excellence and potential of the region's science;
- overall long-term vision of the region's development;
- global trends related to the region's prospective high export potential and inclusion in higher levels of global value chains;
- compliance with the strategic development goals of the EU for the period up to 2050;
- compliance with the development goals of Latvian smart specialisation for the period up to 2027.



Seven priority economic sectors for smart specialization have been determined in the Vidzeme region.

Information and communication technologies are accepted as the crosscutting sector of all the mentioned economic sectors. Digitisation permeates every economic sector in a technology-intensive economic transformation.

Fig. 1. Economic sectors identified in the Vidzeme region, to which economic smart specialisation is applied, would have the highest added value for the region in the long term

- 1 WOOD PROCESSING, INCLUDING FURNITURE PRODUCTION
- **2** PRODUCTION OF FOOD AND BEVERAGES
- **3** FORESTRY

Technology- and export-intensive

sustainable

- 4 AGRICULTURE, INCLUDING ANIMAL HUSBANDRY
- **5** REHABILITATION AND HEALTH CARE
- **6** ENERGY PRODUCTION FROM RENEWABLE RESOURCES
- **7 BLUE BIOECONOMY**, INCLUDING FISHERIES
- 1 ART, ENTERTAINMENT, AND TOURISM SERVICES
- 2 CONSTRUCTION AND REAL ESTATE
- 3 METAL PROCESSING
- 4 PRODUCTION AND PROCESSING OF NON-METALLIC MINERALS
- 5 PRODUCTION AND REPAIR OF EQUIPMENT AND APPLIANCES
- 6 PROCESSING OF RUBBER AND PLASTIC
- 7 PROFESSIONAL SCIENCE SERVICES
- **8** EDUCATION SERVICES
- 9 TRANSPORTATION AND LOGISTICS SERVICES

Some powerful companies, start-ups and research groups operate in the Vidzeme region, which do not represent the region's priority economic sectors. Still their focus and development dynamics correspond to the smart specialisation of the region. At the same time with the seven priority strategic sectors, Vidzeme also defines nine sectors of smart specialisation development opportunities, which are closely related to the growth of the added value of the region's economy.

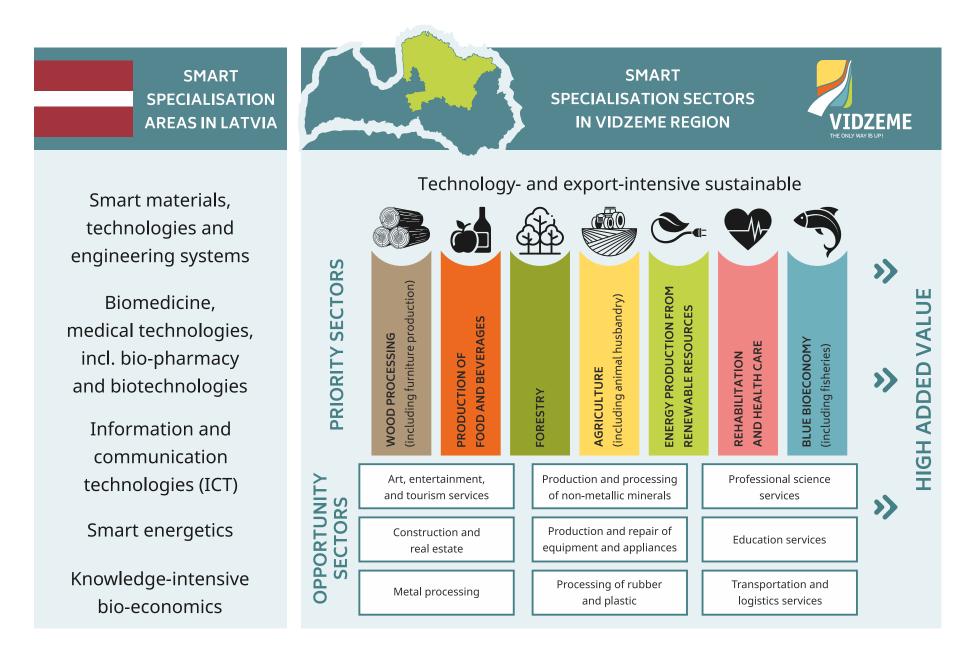


Fig. 2. The depiction of the smart specialisation value chain of the Vidzeme region against both priority and secondary economic sectors proposed by the region.

The strategy defines 11 directions of action, the task of which is to achieve the progress of smart specialisation, using the main opportunities of the Vidzeme region and reducing the shortcomings detected in the innovation ecosystem of the region.

- Focus research, development and innovation **resources** and investments **on the priority areas and sectors defined** in the strategy. In order for the region to achieve the goal set by smart specialisation and fulfil the tasks, it is recommended to allocate 70% of the potentially available resources, including human, financial, time, cooperation and other resources, for support to the priority sectors. Allocate 30% of the available support to support the secondary development opportunities sector.
- Strengthen the attraction of human capital and talents in the priority areas and sectors defined in the strategy.
- Strengthen applied research and experimental development in the region by increasing the number of companies implementing technology- and export-intensive innovations.
- Strengthen the ability of the region's innovation ecosystem to attract international research and develop-ment projects and investments in priority sectors.
 - Strengthen and promote clusters of priority sectors.
- **Reduce the bureaucracy** of the innovation ecosystem by promoting simplified support mechanisms.
- Increase the spread of innovative technological knowledge in the business environment in priority areas and sectors, including stimulating the cooperation of research organisations and distributors of the latest technologies, in order to promote business with high added value and export potential in the region.
- Promote the **development of** smart specialisation **services** at the same time with the production of goods.

- Promote **sustainability** and the European Union's **Green Deal integration** in the science, technology and innovation system.
- **Promote the export potential** of research and development products and services.
- Promote the development of the region's educational programmes according to the priorities of the smart specialisation strategy.

In accordance with the goal of the European Union (hereinafter referred to as the EU) to become a climate-neutral economy with zero greenhouse gas emissions by 2050, Vidzeme's smart specialisation strategy envisages promoting the transition of the region to a circular economy by reducing the consumption of raw materials and reducing the generation of waste to a minimum. The transition to a climate-neutral economy is an urgent challenge shared by both the EU and the international community, where the region has the opportunity to both create a better quality of life in Vidzeme and offer products and services with high added value in the Latvian, EU and global markets.

The strategic directions of action of Vidzeme's smart specialisation envisage preserving the value of economic resources as long as possible and streamlining the life cycle of production, consumption and products.

In Vidzeme, it is recommended to introduce mechanisms that directly promote innovation and research in priority sectors, such as incubators, science parks, technology zones, financial incentives, etc., as well as to promote the transfer of knowledge, support approaches and technology from other countries.

It is important to promote the **region's ability to attract EU support instruments** in both financial and cooperation areas in the region's priority sectors.

The directions of action of Vidzeme's smart specialisation strategy envisage **promoting the development of service sectors** in the priority economic sectors.

WOOD PROCESSING

(including furniture production)



PRODUCTION OF FOOD AND BEVERAGES



FORESTRY



ENERGY PRODUCTION FROM RENEWABLE RESOURCES

(including animal husbandry)

AGRICULTURE



REHABILITATION AND HEALTH CARE

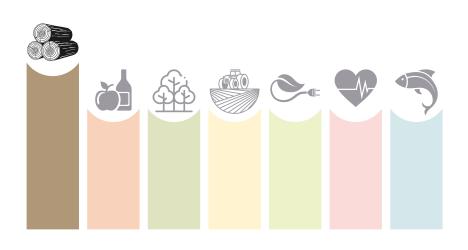


BLUE BIOECONOMY (including fisheries)



SCOPE OF SMART SPECIALISATION OF PRIORITY SECTORS

WOOD PROCESSING





Wood processing is a broad industry related to mechanical, chemical, chemical-mechanical processing and wood working A wide variety of products for national economy, culture and household needs are made from wood: construction products (doors, windows, floorboards, parquet, panels, glued structures, cladding boards, ready-made residential houses, etc.), furniture, structural elements of automobiles, wagons, ships, bridges, railway sleepers, containers, matches, musical instruments, sports equipment, household items, toys, souvenirs, etc. Wood processing is one of the largest and most important economic sectors of Vidzeme.

FRAMEWORK

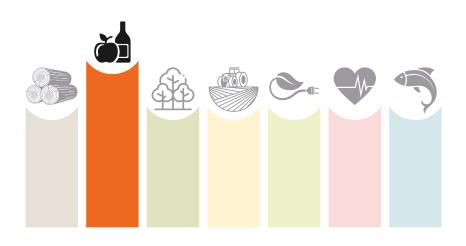
- Circulation of knowledge, skills, and information among entrepreneurs regarding the latest solutions and technologies for more productive and climate-neutral wood processing and the production of wood products.
- Solutions and technologies for wood research and innovative use.
- **Innovative transport vehicles** to be used for moving wood processing products.
- Devices, equipment, and systems for the management of companies in the wood processing sector, management and development of production processes.
- **Innovations and technologies** for the use of wood processing production residues.
- Clusters for more efficient business.

DEVELOPMENT VISION 2030



In the Vidzeme region, the largest number of companies use the latest and most modern smart technologies in wood processing, which ensure high productivity and are climate neutral. Wood processing and wood product producers in the Vidzeme region are internationally renowned and recognised as providers of high quality, economical offer, and large volumes. Innovative and smart technologies are used in companies, which reduce the necessary manual labour resources, replacing it with robot-harvester work. In Vidzeme there are both large production plants of regional importance and small processing plants. Producers have united in associations and clusters, which help to economise resources, acquire the latest knowledge more successfully, introduce new technologies and learn export markets. The by-products of wood processing production are processed into other innovative products or used to provide services.

FOOD AND BEVERAGE PRODUCTION





High and growing export dynamics in the food and beverage production sector can be observed in Vidzeme, however, the growth and volume of added value point to the opportunities that smart specialisation can provide. The demand for food internationally will continue to grow significantly due to the growing population. Organically grown food is also becoming more and more popular. Trends indicate that consumer demand for meat substitutes and protein (pea, oat, etc.) based products, vegetables, grains, and vegetable oils will increase significantly. Food and beverage producers in Vidzeme need to introduce smart technologies in production with the aim of making production more productive, more optimised, and more environmentally friendly, reducing greenhouse gas emissions and the negative impact on the climate, as well as increasing sales in foreign markets.

DEVELOPMENT VISION 2030



In the Vidzeme region, the latest and most modern smart technologies are used in the production of food and beverages, which ensure high productivity and are climate neutral. The Vidzeme region's food and beverage producers are internationally renowned and recognised as providers of high-quality, economical products and large volumes. In most companies, innovative and smart technologies are used, which reduce the necessary manual resource by replacing it with robot-harvester work. In Vidzeme, there are both nationally important food and beverage production facilities and small ones. Producers have joined together in associations and clusters, which help to successfully acquire the latest knowledge, create innovations, and facilitate the learning of foreign markets. In Vidzeme, there is a public/private partnership innovative food and beverage research centre – an incubator that provides experimental research and production opportunities in food and beverage production. This makes it possible for every producer in the industry to conduct research using state-of-the-art laboratories and develop innovations, as well as to ensure the production of test batches of products without the initial largescale investment in production equipment. By-products of food and beverage production are processed into other innovative products or services with high added value, including energy.



FRAMEWORK

- Circulation of information and knowledge among entrepreneurs about the latest solutions and technologies for more productive and climateneutral production of food and beverages.
- Solutions and technologies for the innovative use of natural resources of local origin, including agricultural, marine, forest, rural and animal husbandry resources, in food and beverages.
- Development of innovative food products for rehabilitation and health care, including functional food products.
- Solutions and technologies for the research and innovative use of by-products of food and beverage production.
- Solutions and technologies for improving the quality and climate neutrality of food and beverages.

- Solutions and technologies for sustainable food and beverage production.
- Innovative solutions and technologies for increasing production productivity, ensuring stable availability of sustainable food at an affordable price.
- Devices, equipment and systems for the monitoring and development of the production environment.
- Technologies, devices, and processes for improving transport and logistics services in food and beverage transportation.
- Solutions and technologies for short food production and supply chains.
- Clusters for more efficient business.



FORESTRY





More and more productive, climate-neutral, and smart use of forests is critically important not only for the regional economy, but also for other functions performed by the forest, such as recreation, well-being, social functions, etc. The forest as a resource is based on various support systems: soil, water, climate, biological diversity related to pollination and natural disease mitigation. At the same time, increasing demand for the timber resource poses new challenges in sustainable forest management.

FRAMEWORK

- Solutions and technologies for research and innovative use of forest resources.
- **Innovative transport vehicles** to be used in the forest environment.
- Devices, equipment and systems for forest monitoring and development.
- Innovative ways and technologies for using natural compounds of unique forest resources.
- Technologies, devices, and processes for improving the safety and efficiency of transport and logistics services in forest monitoring, management, development and restoration.
- Forest resources for rehabilitation and health care.
- Clusters for more efficient business.

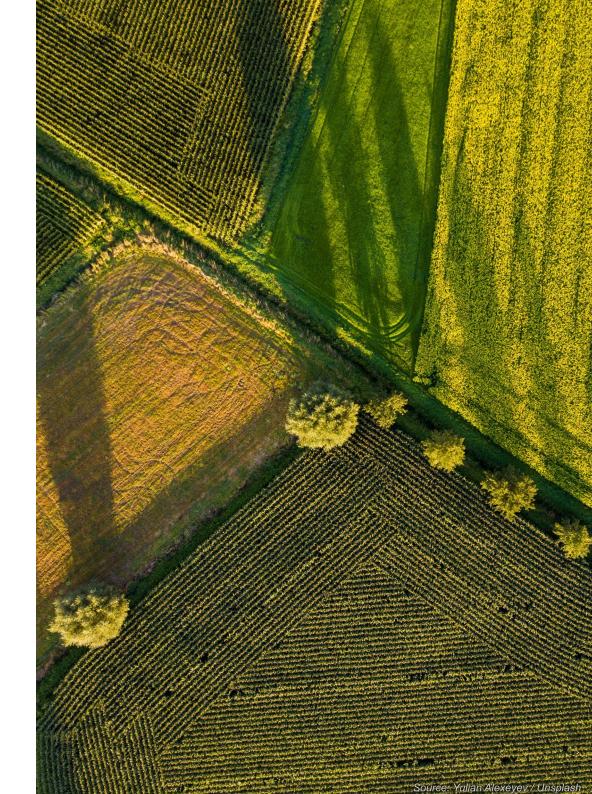
DEVELOPMENT VISION 2030





AGRICULTURE, INCLUDING ANIMAL HUSBANDRY





The agriculture and animal husbandry sector in the Vidzeme region has smart specialisation applications and a clear perspective in cereal production, meanwhile, the growth of other agricultural and animal husbandry productivity indicators lag behind, which indicates that stimulation is necessary in areas of smart specialisation. Producers in the region should consider how to make agricultural and animal husbandry production more and more productive, more optimised, and more environmentally friendly, reducing greenhouse gas emissions and other negative effects on the climate, as well as ensuring the final production is as clean as possible from the use of synthetic fertilisers and antibiotics.

FRAMEWORK

- Solutions and technologies for the research and innovative use of the potential of cereal and vegetable resources.
 - Solutions and technologies for the research and innovative use of the potential of animal husbandry resources.
 - Smart transport vehicles to be used in the agriculture and animal husbandry environment devices, equipment and systems for processing, monitoring, and development.
 - Innovative ways and technologies for the use of agricultural and animal husbandry resources, including production residues.
 - Innovative ways and technologies for sustainable increase of organic farming and animal husbandry productivity.
- Clusters for more efficient business.

DEVELOPMENT VISION 2030



in the Vidzeme region, most companies use innovative and smart technologies in agriculture and animal husbandry, which reduce the required human labour resource by replacing it with robot-harvester work. Vidzeme is home to one of the largest areas of smart greenhouses in the Baltics, covering the demand of the Vidzeme region and the country for vegetables and berries of local origin. Vidzeme is home to large-scale producers of agricultural products that use innovative and smart technologies that are able to attract highly qualified and paid labour. Vidzeme has one of the largest and most modern animal husbandry farms of Latvia in the EU. The meat and dairy products produced in the region are internationally recognised for their high quality, variety of products and an attractive price for various consumer segments, which is ensured by automated and digital technologies. Sheep breeding based on modern technologies and innovative solutions is developing in the hilly and less fertile land areas in Vidzeme, making the region a leader in sheep breeding production in the Baltics, with extensive export markets. Vidzeme is internationally recognised as a sustainable producer of grain, fruit, vegetable, and animal husbandry products, as well as an implementer of innovative primary production and processing solutions.

ENERGY PRODUCTION FROM RENEWABLE RESOURCES





Cogeneration plants with wood chips or wood pellets as the main source of heat energy dominate in Vidzeme.³ In the region, there is a tendency for centralised heat supply systems to replace fossil resources partially or completely with renewable energy resources, such as biomass. This is facilitated by various support programmes.

Biomass is widely used, especially for individual heating systems and relatively small-capacity centralised heat supply systems. The largest amount of renewable electricity in the region is produced by hydroelectric power station Kegums located in Ogre county. Renewable electricity is also obtained from biomass and biogas. Wind and solar energy are still used relatively little in the region,

IN THE CONTEXT OF SMART SPECIALISATION, THE VIDZEME REGION HAS SEVERAL AVAILABLE NATURAL RESOURCES FOR ENERGY PRODUCTION:

mainly in private properties or in some municipal facilities.⁴

Biomass, including shrubs, wood production residues, agricultural plant residues, sugar, starch and oil-containing plants, logging residues, as well as organic waste and residues from the agricultural sector, organic materials from domestic waste, sewage sludge and industrial waste from food production;

Hydropower (including wave energy⁵). In 2015, 146 small hydroelectric power plants operated in Latvia, of which 43 were in the Vidzeme region. There are 9 small hydroelectric power plants on Gauja, the largest river in the Vidzeme region. Similar to the context of biomass use, growth in this sector can be promoted by increasing entrepreneurs' knowledge of available technological solutions and creating an attractive environment for investments and investors;

Solar energy. Solar energy in Vidzeme has great potential, but there is still a lack of knowledge and trust in solar energy technologies. In recent decades, the number of suppliers of solar thermal systems and solar panels has increased, the efficiency of these systems and equipment has increased and installation costs have decreased, but most public sector institutions, entrepreneurs and citizens lack knowledge about their use and expected economic benefits, and they also lack funding;

Wind energy. The average wind speed in Vidzeme is 2–6 m/s, with the most promising areas on the seacoast and the Vidzeme Highland. Similar to solar energy and biomass, there is also a lack of practical knowledge about implementation solutions, necessary investments, and their payback period in the use of wind energy.



³ Evaluation of economic indicators of the Vidzeme planning region/03.01.2022. Section "Evaluation of Energy Sector Indicators".

⁴ VPR. Regional profile in the field of energy supply, consumption and energy management.

Available at: http://jauna.vidzeme.lv/upload/PANEL/Gala_dokumenti/VPR_Regionalais_profils_energoapgades_paterina_un_energoparvaldibas_joma.pdf

⁵ Wave energy is energy that is extracted from the force of waves and converted into doing work useful to humans, such as generating electricity, pumping water or doing mechanical work.

⁶ VPR. Regional profile in the field of energy supply, consumption and energy management. Wind energy p. 35.
Available at: http://jauna.vidzeme.lv/upload/PANEL/Gala_dokumenti/VPR_Regionalais_profils_energoapgades_paterina_un_energoparvaldibas_joma.pdf



DEVELOPMENT VISION 2030

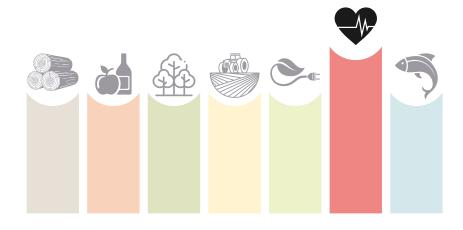
Several high-capacity wind and hydropower parks have been established and are operating in the highland and coastal areas of the Vidzeme region. Several high-capacity solar energy parks are operating in the region. In the Vidzeme region, the majority (~80%) of companies and farms produce energy for their own needs and, if possible, for export from renewable resource sources – sun, wind, water, and production residues. Also, most households, including apartment building associations, produce part of their required energy from renewable resources, using mainly solar or wind collectors.

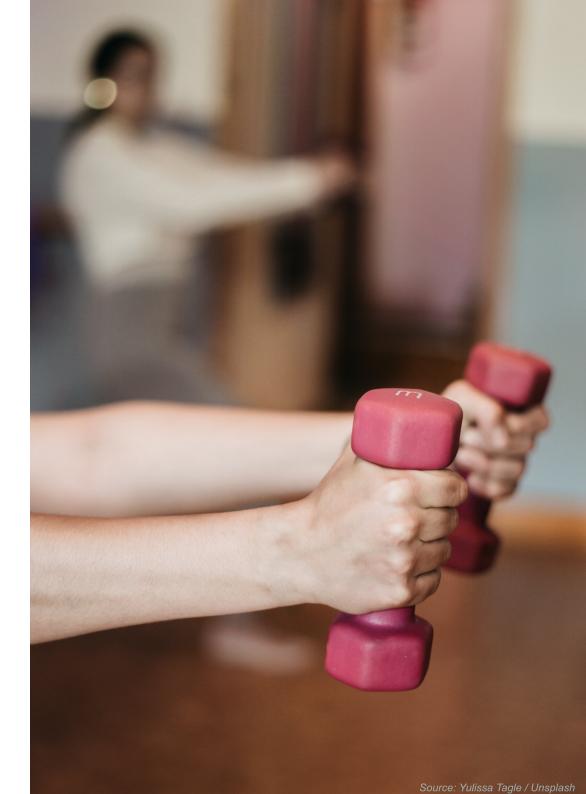
FRAMEWORK

- Circulation of knowledge, skills, and information primarily among entrepreneurs about energy production from renewable resources and/or from production residues, using the latest technological solutions.
- Innovative solutions and technologies for the use of food processing residues in energy production.
 - Innovative solutions and technologies for the use of organic residues from the industrial production of agriculture and animal husbandry in energy production implementation and development of innovative biogas and biomethane stations.
 - Innovative solutions and technologies for the use of production surpluses of plants containing sugar, starch, and oil in energy production.
 - Innovative solutions and technologies for the use of logging residues in the extraction of energy materials.
 - Solutions and technologies for research and innovative use of hydropower, solar and wind energy.
- Clusters for more efficient business.



REHABILITATION AND HEALTH CARE





In Vidzeme, there are several treatment, rehabilitation, and health care institutions, also important on a national scale, which provide primary medical assistance, as well as offering high-quality and affordable rehabilitation and care services, including physiotherapy and health improvement procedures. Currently, the field of rehabilitation, which is clearly represented by the Līgatne Rehabilitation Centre, Strenči Psychoneurological Clinic and Mazsalaca Hospital that has gained a good reputation in the field of palliative care on a national level, is strong in Vidzeme.

THE OPPORTUNITY TO PROMOTE SMART SPECIALISATIONS FOR GROWTH IN THE REGION MOVES IN TWO DIRECTIONS:

- In cooperation with health care, science, and professional and higher education institutions, creating a regional research cluster (science park) with the aim of creating product, service and process innovations that improve rehabilitation and health care and serve as a base for high added value start-ups;
- To promote the creation of innovative and modern rehabilitation and health care business services in Vidzeme, especially in the coastal area.

It is necessary to develop innovative approaches in rehabi-litation and health care, which would be used in the health institutions of the Vidzeme and which could be patented and exported. At the same time, as the region becomes more recognised and well-known for innovative health care, rehabilitation and care tourism would be promoted. Thus, high added value services in the field of health would be developed in the region, using the existing experience, competence and material and technical resources of the institutions. An ageing population, lifestyle influences, and rapidly developing biotechnologies provide the basis for a strong growth outlook for the region in both domestic and foreign markets in the specific area.





DEVELOPMENT VISION 2030

The Vidzeme region is recognised locally and internationally for its high-quality rehabilitation and health care services, which it also exports. Rehabilitation and health care in Vidzeme is innovative and modern. The coast of Vidzeme is well-known and recognised as a cluster of modern health care, rehabilitation facilities and spas. The region is home to a science centre for rehabilitation and health care, where existing health care facilities, start-ups and research organisations work together to develop innovative health care and rehabilitation solutions. In the region, along with state and local government health care and rehabilitation organisations, there is a strongly developed private health care sector, which mostly provides export services.

FRAMEWORK

Innovative product and service solutions for rehabilitation and health care support.

New technologies and solutions for comprehensive patient diagnostics, the goal of which is the preventive early detection of diseases and the initiation of therapy within the framework of rehabilitation and care.

New technology, process and product solutions that support the implementation of innovative rehabilitation and care therapies.

New therapeutic and rehabilitation products and services, including those that use regional natural resources, including but not limited to the territories of the Vidzeme coastal area and Gauja National Park and the natural resources that can be obtained from them, such as mud, algae, sapropel, etc.

Innovative solutions and technologies in the prevention, diagnosis and treatment of lifestyle and ageing-related diseases.

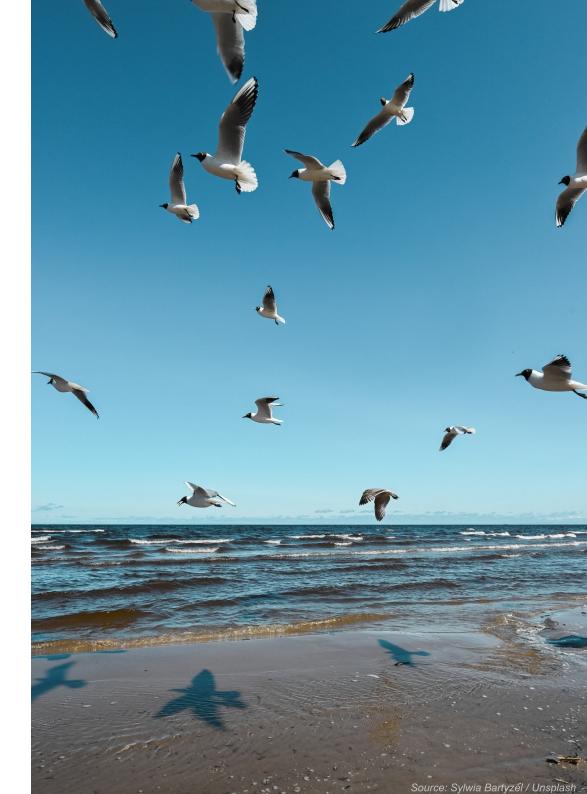
Innovative solutions and technologies to support people with physical or mental disabilities.

Clusters for more efficient business.



BLUE BIOECONOMY

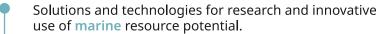




Since 1 July 2021, the administrative territory of the Vidzeme planning region includes the coastal area. Currently, the maritime economy in the region is associated with traditional activities such as fishing or transport, but new and innovative companies are also active in the sector. The EU, which is the world leader in the field of marine energy technologies, has set the goal of producing up to 35% of its electricity from the resources located in coastal areas by 2050 at the latest, which opens new opportunities for Vidzeme. Energy from renewable marine energy resources, food from the sea, sustainable coastal and marine tourism and many other activities that make up the blue economy will contribute to the diversification and transformation of the economy of the Vidzeme region.

It is recommended to direct the smart specialisation of the coastal economy of the Vidzeme region to technology- and export-intensive sustainable rehabilitation and health care sectors and technology- and export-intensive sustainable fisheries activities. **The blue bioeconomy in the region should also focus on inland waters.** This is a new field in the region. The blue bioeconomy potential of the region includes not only renewable energy, food production, health restoration products and services, but also the production of high-value pharmaceutical and chemical products, as well as port services.

FRAMEWORK



Solutions and technologies for research and innovative use of freshwater resource potential.

Transport vehicles to be used in the marine and coastal environment.

Marine and coastal resources for rehabilitation and health care activities.

Devices, equipment and systems for the monitoring and development of the marine and freshwater environment.

Innovative ways and technologies for using unique compounds from marine organisms.

Technologies, devices, and processes for improving the safety and efficiency of transport and logistics services in ports.

Clusters for more efficient business.



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