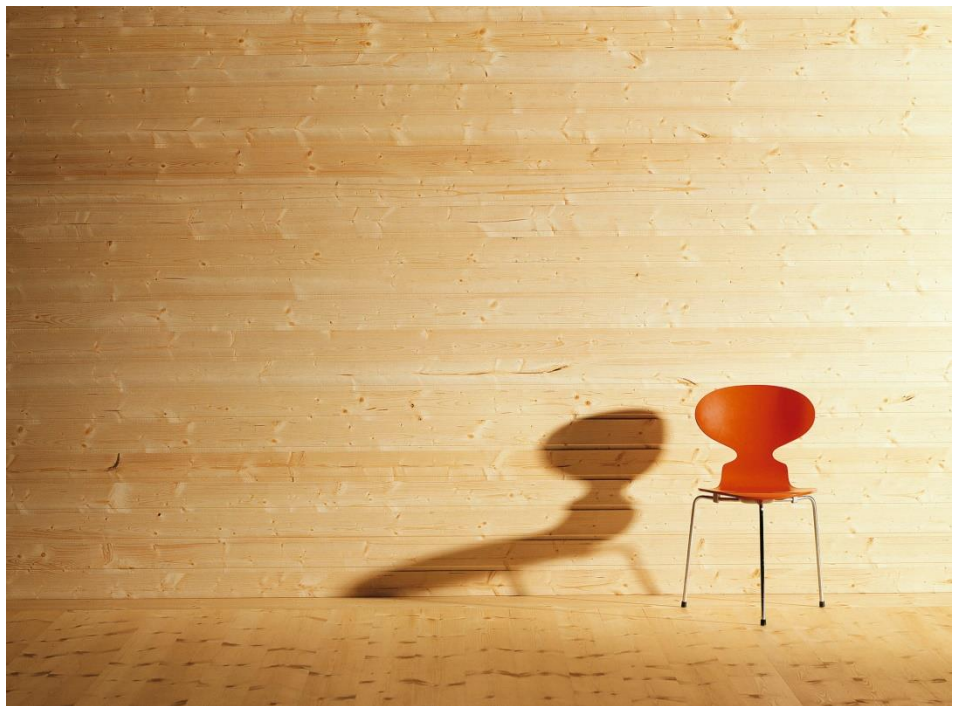


INNOVATION AND EXPORT OF WOOD AND FURNITURE IN VÕRU COUNTY AND VIDZEME PLANNING REGION (WOOD & FURNITURE)



11/15/2017

2nd and 3rd part study section



TABLE OF CONTENTS

1	STUDY METHODOLOGY	3
2	USE OF WOOD RESOURCES FOR CREATING VALUE ADDED	5
2.1	“CASE STUDY” ABOUT EXPERIENCE OF SMEs IN WOODWORKING PROCESSES AND EXPORT OF PRODUCTS	5
2.1.1	VÕRU COUNTY - B2B AND B2C.....	5
2.1.2	VIDZEME PLANNING REGION - B2B AND B2C.....	8
2.1.3	SUMMARY	11
2.2	FUTURE TRENDS AND PROMOTION OF INNOVATION AND DESIGN.....	12
2.3	INCREASING OF EXPORT OF WOOD INDUSTRY PRODUCTS AND VALUE ADDED OF PRODUCTS.....	21
3	CROSS-BORDER COOPERATION POSSIBILITIES BETWEEN VPR AND VÕRU COUNTY..	25
3.1	COOPERATION POSSIBILITIES OF VPR AND VÕRU COUNTY IN WOOD INDUSTRY.....	25
3.2	COOPERATION MODELS IN THE REGIONS AND POSSIBILITIES OF THEIR TRANSFER.	25
4	CONCLUSIONS AND RECOMMENDATIONS.....	27

Innovation and export of wood and furniture in Võru County and Vidzeme Planning Region (Wood & Furniture)

2ND AND 3RD PART STUDY SECTION

Already for many years the main sectors of entrepreneurship in Latvia and Estonia are related to woodworking; however, approximately 40% of wood is exported in unprocessed form. To strengthen and promote the export capacity of the Baltic states in woodworking and furniture sector, Vidzeme Planning Region in cooperation with Võru County Vocational Training Centre have started the project “Innovation and export of wood and furniture in Võru County and Vidzeme Planning Region (Wood & Furniture)”. The project will involve public authorities, entrepreneurs and representatives of the education sector to collectively find ways for successful and innovative sales and export of products.

Leading partner: Võru County Vocational Training Centre T-senter, Estonia

Project No.: Est-Lat 35

Programme: Interreg Estonia – Latvia 2014-2020

Partners: Vidzeme Planning Region (Latvia);
Võru County Vocational Training Centre T-senter, Estonia

Objective:

To enhance cross-border cooperation in Võru County and Vidzeme Planning Region between wood and furniture sector companies to innovate industry and add value to wood and furniture products, introduce design-thinking and increase export capacity.

Study object and subject: The study object are small and medium enterprises (SME), and subject – promotion of export capacity in Vidzeme Planning Region (Latvia) and Võru County (Estonia).

Result: A study about trends and opportunities in the wood and furniture sector (companies), putting accent on specific activities for promotion of export of products.

2ND AND 3RD PART STUDY SECTION

1 STUDY METHODOLOGY

In the development of 2nd and 3rd part study sections of the market survey “Innovation and export of wood and furniture in Võru County and Vidzeme Planning Region” in the project “Innovation and export of wood and furniture in Võru County and Vidzeme Planning Region (Wood & Furniture)”, the information based on the results of the 1st part of W&F project study and SWOT analysis data about Vidzeme Planning Region and Võru County was used to prepare current and summarizing information about the future development trends of the sector and opportunities for cross-border cooperation between both regions:

Development of 2nd part “Research of future development trends of wood industry to promote manufacturing of high value added products and their export capacity in companies of Vidzeme Planning Region and Võru county” promotion and use of innovation and design in the process of development of wood products, and 3rd part “Opportunities for cross-border cooperation between Vidzeme Planning Region and Võru County”.

1. Development of 2nd part “Research of future development trends of wood industry to promote manufacturing of high value added products and their export capacity in companies of Vidzeme Planning Region and Võru County” promotion and use of innovation and design in the process of development of wood products:.

1.1. More efficient use of wood resources for creating value added in Vidzeme Planning Region and Võru County:

1.1.1. “*CASE STUDY*” involves analysis of the experience in woodworking and export of products of small and medium wood industry companies in the regions, “know-how” summary and recommendations for increasing value added of product for cooperation models in two formats, in six cases in total, three cases in each region (on-site discussions with companies):

- *Business to business (a company directly cooperates with another company, exporting intermediate products, windows, doors, semi-finished products of wooden structures etc.;*
- *Business to customer (a company directly cooperates with the end consumer, for example, supply of furniture and other end products).*

During the discussions, questions about company strategic management in staff, innovation, export and design areas, and their significance in promotion of innovation and export capacity were included.

1.2. Future development trends of innovation and design, and opportunities and types of promotion of products in small and medium companies in the process of manufacturing of wood products were studied respectively in Vidzeme Planning Region and Võru County, three design trends of export market were analysed, which were identified in the 1st part of the study, and also design recommendations for better entering of these markets were prepared. Two markets of European countries and one market outside Europe were analysed in the study.

1.3. Increasing of export of wood industry products and value added of products in Vidzeme Planning Region and Võru County, marketing channels, export markets, also recommendations for cooperation of wood industry companies, educational institutions and scientific research centres are developed in addition to the analytical summary .

2. 3rd part “Cross-border cooperation opportunities between Vidzeme Planning Region and Võru County”:

- 2.1. A summary about potential cooperation areas in wood industry sector between Vidzeme Planning Region and Võru County has been developed;
- 2.2. Research is made about models of the existing cooperation in various sectors between Estonia and Latvia, and the opportunities for their transfer to the wood industry, including analysis of similar projects and possible transfer of experience, and there are also recommendations for promoting cooperation between the two regions, based on the research results.
3. The expected deliverables will comprise a summary of information, analysis and recommendations concerning Võru County and Vidzeme region in Latvian.
4. The following key research methods will be used for preparing the summary.
 - Information acquisition, summarizing and grouping, analysis of primary and secondary data to summarize the acquired information on the wood industry sector and to group it according to the operational limits of the studied sector.
 - Methods of statistical analysis, including comparison, grouping, calculation of relative values, reflecting of trends.
 - Questionnaires to obtain qualitative and easy summarizable information about the sector and persons employed in the sector for the purpose of description contents.
 - Interviews, including in-depth interviews to obtain detailed and in-depth information about any specific process in the sector.
 - Presentation of study results and participation in meetings of the project working group according to the procedure of activities planned in the project in Vidzeme Planning Region and Võru County.

2 USE OF WOOD RESOURCES FOR CREATING VALUE ADDED

2.1 “CASE STUDY” ABOUT EXPERIENCE OF SMES IN WOODWORKING PROCESSES AND EXPORT OF PRODUCTS

Based on the previously conducted entrepreneurship assessment in Vidzeme Planning Region and Võru County, companies, which represent high value added export-oriented business models characteristic of each region, were selected for acquisition of data required for analysis. There are various methods for determining value added, which are used according to the purpose of the analysis. For this study, the classic value added determination method was adopted: value added is depreciation + profit + salaries + taxes. Analysis was conducted in Vidzeme Planning Region and Võru County both for large companies, which increase their value added with investment and profit, and for small companies, where value added of products is created from salaries and taxes. The large companies were selected not as multiplicable cases, but to assess the business model impact on the regional business environment and possible *business to business* development scenarios for small companies.

2.1.1 VÕRU COUNTY - B2B AND B2C

“first case Võru business to business”

A large company with more than 200 employees and turnover over 40 million euros. The company manufactures wide assortment (approximately 2,000 items) of glued pine wood semi-finished products, which are sold to manufacturers of finished products, mainly in Scandinavia. Therefore, the entire production has a certification, that the used wood is obtained from sustainable management forests (FSC and PEFC certificates). The total amount of sold products exceeds 60 thousand cubic metres of wood, which are basically niche products, creating high value added. Since sales of products are related to direct contacts with the buyer and fulfilment of buyer's specific needs, the company has established a sales company in Denmark, because approximately 40% of customers are from Denmark.

The main strategic decisions, which determined the company development, comprised the choice of production type and market, and company management. A significant argument for the choice of production type was availability of resources. Pine wood was chosen because the company had experience in acquisition of resources and manufacturing of glued pine wood furniture parts already in the early 90-ies of the previous century. The decision to re-orientate to manufacturing of construction joinery semi-finished products was made after careful market research in various countries, attending exhibitions, meeting the potential cooperation partners and assessing competitors. Large and competitive manufacturers on the market of pine wood construction joinery semi-finished products (windows and doors) are in Poland, Lithuania and Latvia, which mainly concentrate on the Eastern Europe market, where standard sizes of semi-finished products dominate, especially in manufacturing of wooden windows. This aspect is

determined by rapid development of windows manufacturing technologies in Germany, which has resulted in large manufacturers and standard product parameters. The Scandinavian market is much more conservative; therefore, a sufficiently large market segment is occupied by small manufacturers of windows and doors, which are working with their projects of construction products and require semi-finished products with specific sizes and surface treatment.

Not less significant argument for the choice of company development direction was creation of its management model, which could ensure attraction of finances and operative decision-making. Currently, the company is a joint venture of Estonia and Denmark/Sweden. Since the company management is a confidential issue, the assumption of experts is that the part of Estonia ensures company management, whereas Scandinavians are financial investors. The company regularly invests in manufacturing technology and manufacturing infrastructure, ensuring the investment from the company cash flow. The company plans to invest several million euros also in the coming years. Also LEAN principles are introduced in the manufacturing management. The purpose of introducing LEAN principles is to shorten the order execution time, reduce costs, and improve safety and quality of work. It is achieved by optimising processes through identification and prevention of loss. Also by establishing clear work performance standards, arranging optimal amounts of reserves and determining clear responsibilities and priorities. The company is a member of the sector association, but mainly only for supporting solving of national level issues. The motivation of the company to participate in organizations is not solving of issues of the particular company.

The future challenge of the company is to outpace similar manufacturers in the strategic market region – Scandinavian states – in terms of productivity. Currently, with annual turnover of approximately 18,000 euros per one person employed in manufacturing, the company is slightly lagging behind the competitors in Scandinavia. The goal is to reach annual turnover of 25,000 in the coming years by investing in technologies.

According to the company assessment, global development trends show, that in the future economy will be dominated by developing countries and the European market of exclusive products and services will decline. Europe will have to review its consumption ambitions. The company strategy is ready for it, and it paid off during the recent crisis, as the most significant investments were made exactly in the years of crisis.

The challenging factors are achieving of stable availability of wood resources and finding of qualified employees. According to the company assessment, Russia will not be ready for market economy for a long time yet; therefore, wood resources have to be looked for in the Nordic countries. A great challenge is vocational education, because, unfortunately, educational institutions do not orient their students in the direction of such manufacturing.

Since the company supplies its products to many small companies in the Scandinavian countries, there are frequently orders with specific requirements, for example, grinded semi-finished products, it would willingly cooperate with small woodworking companies.

“second case Võru” business to business/ business to customer

A design-oriented company, which has oriented to development, manufacturing and sales of design-driven furniture during 10 years of operation. The company manufactures own developed furniture solutions, but sells products of several Scandinavian design furniture brands. This strategy allows the company to offer to its customers not only more expensive Scandinavian design products, but also own products. The company implements manufacturing of its products on its own, ensuring a full cycle of product development. The company started its operation as a customer of business incubator, gradually developing and growing. Currently, the company employs 10 persons.

The company cooperation partners are architects, interior designers and private customers, and product solutions resulting from such cooperation are later improved and forwarded for manufacturing. None of employees in the company has design education. The company sees its niche in creation and manufacturing of design products also in the future, because consumers increasingly often request products that differ from those available in mass production.

Development of company products takes place during the working process. In the future, the company would like to cooperate not only with Estonian, but also with Scandinavian designers.

Representatives of the company visit international leading design furniture fairs, because these events highlight future trends, which can be timely included in development of own products.

The annual turnover of the company constitutes several hundred thousand euros.

“third case Võru business to customer”

Wood crafts micro-company of one family. The product package of the company contains several wooden products for environment improvement, but the product development idea is directed towards one item, seen in Finland and adapted. The product is improved, and a patent is registered for the product.

The company manufactures its main product for more than 15 years. The main customers of the company are resale companies and private persons, but increasing amount of manufactured products is acquired also by legal persons for public places. The main markets of the product are Estonia, Finland and Germany.

For the time being, the company is fully loaded and the workload has seasonal nature, which is related to the specifics of products manufactured by the company – products for improvement of outdoor environment. The objective of the company is to at least double the volume of product output, thereby increasing the income. The income can be increased by acquiring new technologies, which would facilitate the hand work process, and working on marketing activities and acquisition of new trade channels.

Currently, the company employs 2 persons on daily basis and 4 employees during the season.

The product package of the company has developed according to the customer demand, improving the products and including the product portfolio of the company. The company has not cooperated

with professionals in the process of product development and it fully relies on the owner's vision about the product attractiveness and competitiveness on the market.

2.1.2 VIDZEME PLANNING REGION - B2B AND B2C

“first case Vidzeme business to customer”

A large company with more than 400 employees, the turnover over 30 million euros and consumption of pine wood for manufacturing of products for end consumers comprising almost 100 thousand cubic metres. Currently, the company is among the globally largest manufacturers in its product niche, because these products are sold to end consumers through a global sales network. It is achieved by investing in the production technology and, especially, in the production organisation. Currently, the LEN system is introduced in the company, which is done in cooperation with experienced and internationally recognised experts in this niche.

The company started its development as a manufacturer of sawn wood materials similar as approximately 2,000 other companies in Latvia in the nineties of the previous century. But already initially the objective of the company was to add as much value to solid wood materials as possible. Therefore, already at the beginning of its operation the company chose a trade chain, which developed and sold to end consumers nature-friendly (solid wood), functionally well-considered and customer taste oriented, simple products. Due to the fact, that by offering such products the chosen trade chain attracted customers around the world, the company was able to develop starting with already acquired technological knowledge and gained experience. The large number of orders allowed to invest in serious manufacturing equipment also for as if simple products. Gradually switching to increasingly higher value added solid pine wood products, investment was made in the most efficient equipment in the group of relevant technologies. The leading European manufacturers of massive wood processing equipment offer to the company their latest developed solutions and adapt them to the particular products in cooperation with technologists of the company.

The company also cooperates with the nearby vocational education institution, and in the company there is also created a training workshop, so that young people who learn the craft could become acquainted with the latest technology. Attraction of qualified and smart young people is one of the main future challenges, because the company will continue to invest and manufacturing technologies will become increasingly “smarter”, so modern-educated employees will be required for operation of these technologies.

Global development trends influence also the company development, but cooperation with the global trade chain allows to keep up with the market development operatively. It is very significant, as the investment planned in the future is measured in millions; therefore, it is crucial to feel the right moment for making such investment.

Direct cooperation models of small companies with this company are not identified, but it is a very significant partner in the area of vocational education. Existence of such a large employer, which is

open for cooperation, presents a huge benefit for a regional vocational education institution, because by implementing correct vocational orientation it is possible to attract young people to the school and organise lifelong education courses each year. An actively engaged vocational education institution would be interesting for the large employer and employees of small companies could acquire the required competences.

“second case Vidzeme business to customer”

The company has extensive experience and great authority in manufacturing of wooden houses, and experience in export. Currently, the company employs 45 persons, involving very experienced craftsmen; therefore, the business relies in particular on the professional competence in the traditional wooden construction area in the recent years. Besides manufacturing of new houses, natural material roofing and wooden structures (view towers), the company also implements reconstruction and restoration projects of wooden buildings. The annual turnover of the company is slightly below one million euros.

Since the company is one of the first to start manufacturing of wooden buildings after restoration of independence of Latvia, it has gone in its development through all development stages of woodworking and construction sectors, starting from the first half of the nineties of the previous century. Including almost bankruptcy during the crisis.

The company sustainability is based on the choice to develop business based on high value added, instead of low costs, achieving it through professionalism and cooperation with similarly thinking and enterprising persons. Such persons are brought together by professional organizations in the house construction sector. The company gains valuable experience in manufacturing of log buildings by being a member of the International Log Builders' Association and by operating in the Group of Building and Construction Crafts of the Latvian Chamber of Crafts. The company also supported establishment of the Latvian Wood Construction Cluster and is its member.

A crucial decision in the company development was a decision on certification of quality by internationally recognised certification systems. It was a very significant choice, because introduction of selected certification systems is related to large time and money investments. A large portion of other house builders in Latvia have not started this process due to this reason. The company has obtained the following certifications:

- ISO 9001:2015 “Quality management systems. Requirements”
- ISO 14001:2015 “Environmental management systems - Requirements with guidance for use”

Another important decision is regular participation in the major market regions. Participation in exhibitions has been implemented in cooperation with LIAA and the Latvian Wood Construction Cluster.

These activities have allowed the company to timely react to market changes and development. At the moment, when the traditional manufacturing of log buildings loses the market of houses, since requirements for energy efficiency of residential premises have increased significantly on all markets, and these requirements are very expensive to comply with by using the traditional building method, the company successfully uses its competence in a new direction – renovation of valuable wooden buildings and restoration of structures. Therefore, the company manager is the initiator and one of promoters for establishment of a new society, because while working in this market niche it is evident, that the existing societies related to restoration of buildings do not represent the competence, which is essential exactly for wooden buildings.

Restoration of wooden buildings frequently requires old wood materials; unfortunately, they are hardly available, because many old buildings are already demolished.

Unfortunately, permanent cooperation with vocational education institutions is not established and the company has difficulties with attracting young people for this very interesting and surely perspective direction of professional activity.

“third case Vidzeme business to customer”

The company operates slightly less than 30 years, and now it has developed as an artisanal joinery company, the owner of which is a professional woodworking artist-master. During its development, the company has gone through various stages of development, including credit crisis and company management splitting stages. The company has not exported its products yet due to limited capacity of employees and insufficient current assets. The main customers of the company are located in the capital city, at a distance of 150 km.

Currently, the company employs 8 persons. The key business strategy of the company is *“business to customer”*, which means uneven load of the company capacity. To avoid less loaded periods, one year ago the company started manufacturing of design products in partnership with product developer, where the implemented innovation involves replacement of the existing solution with wood, as well as the manufacturing and aesthetic solution. The product is still in the stage of development due to complicated manufacturing process, also the investment process in the product improvement and development takes place. However, despite this aspect, the product is already distributed in 11 countries worldwide.

Promotion of the design product on the market is ensured by the product developer, not the manufacturer. A modern and convenient website, and other information channels are created for the product. The product developers understand the contribution of design to the uniqueness of the product, contribution of design to the business development and ensuring of competitiveness and a niche on the market of exclusive products.

The main problem of the artisanal joinery company is lack of professional employees, and lack of willingness and motivation of employees to work. It is a restricting factor also in increasing the production volume of the design product. The company management sees a problem in training of

professional craftsmen and joiners, because it is impossible to create a design product or mass production product without qualitative craft skills.

On daily basis, the artisanal joinery company implements high value wooden product works for individual projects, performs restoration of wooden furniture and parts, and offers wood-carving services. The entrepreneur would willingly specialize in manufacturing of products; however, it is impossible due to the low demand on the Latvian market. As a result, a small company has to be able to execute various orders qualitatively, with high value added and in timely manner.

2.1.3 SUMMARY

Having summarized the information obtained during the study, common challenges and opportunities can be detected for increasing the product value added for both analysed business models:

- *Business to business* (B2B),
- *Business to customer* (B2C).

The main challenge for all entrepreneurs is professional capacity of employees, because aesthetic and technical quality of products is essential for increasing of value added. Therefore, while working on the cooperation models to be developed, the entrepreneur should always plan cooperation in transfer of knowledge and skills. Such cooperation includes not only cooperation among production specialists, but also cooperation in terms of intellectual and creative work among company owners, designers, engineers and technologists.

Another important conclusion is that, except the opportunity, diversification of production by providing any service to a company working in B2B model, is the only common feature among the small manufacturers of niche products, which are working in B2C model. The companies working in B2C are interested to ensure, that their specific products/services are recognised by as many potential customers as possible. Addressing these customers requires using of very extensive communication tools. Various communication activities are usually well noticed in the public space and, most often, almost everyone has own opinion, based on the personal “*like/don't like*” concept. Whereas the situation with B2B model is completely different. Wide recognition is not crucial for companies operating in this segment. The important aspect for these companies is recognition and company image in very specific groups of people (according to the offered product/service). If B2B model companies yet can isolate sales from other aspects of communication, including development of company image and reputation, in B2B model these features merge so much, that it is very difficult to isolate them from each other in a natural way.

The design component is very significant in the offer of B2C products and services both in terms of product and service design. In B2C model the designer's work is much more crucial, while in B2B model the design component is topical only as a service design.

This has to be considered in a geographically unified region (VPR), when planning cooperation activities. A very important step is involving in these activities as many companies of the region as possible. This aspect was evident also during discussions conducted within the study, where

positive experience of one company was absolutely unacceptable for another business model. This was the successful marketing implemented by design furniture manufacturer, posting products of foreign designers along with own products on the company website. This approach is also used by several other manufacturers of design furniture, because it is like consultative sales, which show – the seller is an expert in the particular business field, having competence to acquaint the buyer/potential customer with various solutions and helping the customer to choose the most suitable solution from the wide range of offers. Still, much more topical is the issue of communication organised by the company, which in this case is oriented not only to direct sales, but also to development of the company recognition, image, reputation and other important corporate aspects, which make the customer believe, that the seller is truly an expert in the particular sector. Therefore, when choosing such communication, a company should indeed be an expert in its area. Whereas for companies implementing B2B model this approach would be unacceptable, as company recognition and image is essential in B2B model.

2.2 FUTURE TRENDS AND PROMOTION OF INNOVATION AND DESIGN

The research of future development trends of wood processing industry in Vidzeme Planning Region and Võru County, promotion and application of innovation and design in the development process of wood products.

On a long-term basis, wood processing companies will be influenced not only by the resources available for production of products characteristic of the sector. Among the most significant factors, which will influence manufacturing of furniture and use of living space, will be social and technological development preconditions.

The visual material henceforward has informative nature.

Social factors: according to «Eurostat» estimates, the population of Latvia will continue to decline and will drop to 1.88 million in 2020, and 1.635 million in 2030; at the same time, the population of the world will increase and will reach 9.7 billion in 2050, compared to the current 7.1 billion. It is estimated, that the proportion of children compared to the total population will decrease to 14.2% in 2030. In its turn, the proportion of old people will increase, reaching 20.5% in 2020 and 25.3% in 2030. This means, that not only ¼ of population of Latvia, but also of world population will need adaptable, functionally and ergonomically convenient furniture and living space.

The insight in demographic data indicates the purchasing capacity and potential users of the target market. In the following years, entrepreneurs will have to consider the increasing segmentation of furniture users, for example, seniors have a different body functionality to sit down and stand up from sitting surface or bed. Furniture has to be easy to clean. For seniors it is better to choose furniture with rounded corners. Storage places have to be easy reachable, considering that seniors cannot lift their hand too high and reach far. Shelves have to be wall mountable.



Picture 1. Design trend in furniture (target audience – seniors)¹

Another trend acquired from the social factors analysis shows, that in the future furniture will have to be convenient and easy to modify and adapt. Such trend in furniture will be topical both in segments of private consumption and public furniture. This is suggested not only by the ageing trend of the public, but also by overpopulation and migration. The increasing demand for small or micro size living space will determine, that furniture has to be not only modifiable and adaptable, but even module-type and multifunctional.



Picture 2. Design trends in furniture (significance of modified furniture)²

¹ <http://lanzavecchia-wai.com/salone-2012-no-country-for-old-men/>
<https://www.architonic.com/en/products/elderly-care-furniture/0/3220801/1>

² <https://www.woodenstreet.com/reid-coffee-table-honey-finish>
<http://www.architectureartdesigns.com/15-exceptional-modular-furniture-designs-which-are-worth-having/>



Picture 3. Design trends in furniture (significance of modified furniture)³

Multifunctional furniture will be topical not only in a living space of one or two persons, but also in spaces inhabited by families.



Picture 4. Design trends in furniture (significance of modified furniture)⁴

The third trend – usability of workplaces and public spaces following the principles of inclusive society. If the use of furniture and rooms in private residential premises can be arranged by each

³ <https://www.dezeen.com/2017/10/08/a-room-for-studio-ben-allen-london-barbican-estate-flat/>

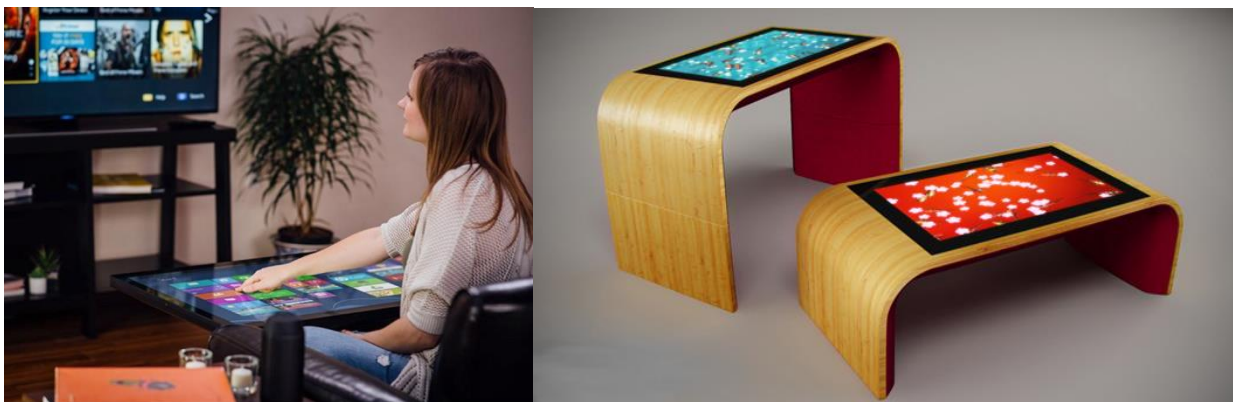
⁴ <http://www.architectureartdesigns.com/15-exceptional-modular-furniture-designs-which-are-worth-having/>

individual according to own needs, employers and organizers of public spaces will have to consider the functional needs of the public increasingly more. Safe and accessible working environment and public spaces will be a requirement not only for inclusion of people with various types of disability, but also seniors. This means, that not only working surfaces and workplace seats, but also additional furniture, for example, office shelves, tool and leisure rooms will have to comply with requirements of ergonomics and functionality.



Picture 5. Design trend in furniture (usability of workplaces and public rooms)⁵

Technological factors: changing and progressive technological environment is a precondition for the requirement, that technological solutions of furniture and living premises will have to be easy replaceable and adaptable. Integration and replacement of convenient technological solutions both in furniture and living premises will be determined by needs and habits of users, opportunities for use of technologies, and also the necessity for functional, comfortable environment. It has to be considered, that in the future some portion of operations necessary for people will be replaced by technologies. Integration of technologies in furniture will determine the changes of habits of users and organizing one's workplace. Significant changes in the furniture demand will be made by development of augmented reality and its inclusion both in working and private spaces.



Picture 6. Design trend in furniture (changing and progressive technological environment)⁶

⁵ <https://ltw1.com/round-standing-height-adjustable-meeting-tables/>
http://www.weberknapp.com/?page_id=620

⁶ <http://www.embedded-computing.com/embedded-computing-design/the-coolest-in-high-tech-furniture>
<http://maqueta.info/technology-furniture/with/>

An essential precondition in the operation of companies and manufacturing of products will be *ecological and environmental challenges* for sustainable and qualitative furniture and living space solutions. This factor is related to minimizing of health problems in the daily life of people, where natural wooden raw materials have advantages. Also renewable, but not endless resources for manufacturing of furniture and living space. The future niche in the manufacturing of furniture will be using of recovered wood resources. It will be a niche opportunity not only due to reasonable use of resources, but also due to increasing social responsibility requirements and needs of furniture users and manufacturers. Integration of ecological and environmental challenges in increasing of efficiency of manufacturing processes will have huge significance.



Picture 7. Design trend in furniture (ecological and environmental challenges)⁷

For companies to be able to compete, cooperation in development, manufacturing and sales of products will be an essential factor in the future.

Design trends in target markets - Germany, Norway and Canada

Looking at design trends of wooden buildings, furniture and interior accessories leads to a conclusion, that the global market introduces uniformity of stylistic features during development of products. Although currently and for the next three years design influence features of 60'ies will be stylistically topical, in the next decade stylistics will not be as significant as functionality, ergonomics and sustainable usability.

Below, the existing design trends in all three countries can be observed, which lead to a conclusion, that also those, who will follow other manufacturers instead of creating novelties, will easily integrate in the overall flow.

⁷ <https://www.dezeen.com/2017/04/04/benedetta-tagliabue-encases-pillars-15th-century-auditorium-wooden-furniture-milan/>

Design trends and influences can be observed in the design portals given below:

- www.dezeen.com
- <https://www.trendhunter.com/>
- <https://inhabitat.com/>
- <https://design-milk.com/>
- <https://www.designweek.co.uk/>
- <https://www.creativereview.co.uk/category/cr-blog/>

Design trends of wooden houses.

There are no absolute design trends on the market of wooden houses, which should be considered by manufacturers. Design trends are more related to the planning of ergonomics and usability of buildings, which is solved in cooperation with an architect.

Stylistic diversity of wooden buildings is linked to the individualised choice of the customer, available financial sources and understanding of the visual and aesthetic image of building, these aspects being related to the archetypal experience and way of thinking in each region. However, not only architects, but also users – customers are influenced by each other and, as can be observed in pictures 8, 9 and 10, there exist no significant differences in the contemporary construction of wooden buildings in various countries, in particular, Canada, Germany and Norway. It also should be noted, that individualised designs of wooden buildings are expensive; therefore, mass production and standardised designs of buildings are and will be demanded not only in the selected target markets. The necessity and demand for such designs is determined not only by the socio-economic, but also political situation.



Picture 8. Design trends of wooden houses⁸

⁸ <https://www.dezeen.com/2017/11/17/maurice-martel-architecte-lareau-offices-contemporary-barn-napierville-canada/>



Picture 9. Design trends of wooden houses⁹



Picture 10. Design trends of wooden houses¹⁰

As a significant design trend on the market of wooden buildings should be mentioned energy efficiency of buildings and materials used for construction, as well as building layout, during development of which the principles of universal design will have to be considered. This means, that during construction of building the accessibility and user's functional needs in the future have to be timely considered.

Design trends of furniture and interior items:

⁹ <https://www.dezeen.com/2015/04/20/timber-house-rural-bavaria-germany-slatted-wooden-facade-copper-fittings-kuhnlein-architektur/>

¹⁰ <https://www.dezeen.com/2017/03/01/hytte-ustaoset-pine-cabin-jon-danielsen-aarhus-norway-pine/>

The stylistic and aesthetic trends in furniture and interior items in the selected target markets – Germany, Norway and Canada – follow the general global visual trends and use of wood technologies. This leads to a conclusion, that uniformity, stylistic simplicity and merging of cultures and traditions can be observed both globally and, in particular, on the market of furniture and interior items. By aligning with the common flow of trends, companies do not stand out and do not take risks when manufacturing uniform products. When creating novelties, new ways of manifestation, modelling new user habits, new directions of furniture and interior items, the risks increase, but also the possibility to stand out on an overproduction market with niche and different products increases.

Norway



Picture 11. Design trends of furniture and interior items: Norway¹¹
Canada

¹¹ <https://www.dezeen.com/2016/10/21/homes-scandinavian-interior-design-dezeen-pinterest-board-10-of-the-best/>



Picture 12. Design trends of furniture and interior items: Canada¹²
Germany



Picture 13. Design trends of furniture and interior items: Germany¹³

¹² <https://www.dezeen.com/2016/02/07/thom-fougere-furniture-collection-canada-stockholm-2016/>

¹³ <https://www.trendir.com/designer-furniture-from-condeh/>

2.3 INCREASING OF EXPORT OF WOOD INDUSTRY PRODUCTS AND VALUE ADDED OF PRODUCTS

The local market is too small for the target group companies in Vidzeme Planning Region and Võru County to develop significantly. Except B2B with the major exporters, the export success of which is related to development of the construction market and rapidly growing use of wood materials in construction in the target market countries. Initially, it is passive export, where furniture or a design product is manufactured for the needs of foreign market according to an order of wooden buildings exporter and is offered on the market under the brand of this company. By successfully developing such cooperation, the export market can be entered also with own brand. Especially favourable for starting such B2B cooperation is the trend characteristic of exporters of wooden buildings, when manufacturers of building start to operate as property developers in the target market countries. This means selling of already built and improved properties. This approach reveals cooperation opportunities also to manufacturers of garden design products.

By developing sales of own products on foreign markets, companies have to make several important decisions. First, whether to offer products under own brand, or create new brands understandable for the target market, which will attract the local consumer better. Also large companies use similar tactics; among the possible solutions is buying of a brand already known in the export country, which facilitates the initial entering of the market. For example, when entering the Latvian market, the Finnish company Fazer bakeries acquired the company Druva, implementing bread production under the brand Druva for another several years before launching Fazer branded bread on the Latvian market. Recognition is a very important factor in export; therefore understanding of peculiarities and habits of the export market is among the preconditions for success. The use of wood for manufacturing of furniture and design items is already a significant advantage on the target market, because it is an environmentally friendly raw material and a traditionally close material for residents of these countries. The only task is to follow the design trends. The reasons for failing on export markets involve not doing market research and underestimating the force of competitors. Also unsuccessful choice of local cooperation partners and inability to supply the product in the required amount, time or at appropriate quality are crucial aspects.

Also a decision has to be made regarding the scale of marketing and advertising campaigns on the target markets. During the process of planning an international marketing campaign, the entrepreneur shall decide, whether to create centralised campaign slogans and advertising materials and then use them on all export markets without making any changes, or to create unique materials for each region and country, which will address each market more specifically.

Small and medium entrepreneurs cannot afford a large marketing team, but it is wrong to think, that they are unable to properly compete on the large market due to this reason. Currently, there is a sufficient amount of tools on the internet, which can be efficiently used by entrepreneurs for gaining benefits. Small companies, domestic producers or individual merchants comprise the main target market of developers of various apps and online tools. Thanks to these tools entrepreneurs can

create a simple website, conduct market research and even create infographics or a simple advertisement template for social networks.

Also market research can be done on the internet, for example, using Google Trends offered by Google, the potential of which is frequently underestimated. This tool allows not only to find out the level of popularity of any specific topic, but also to compare the demand for specific categories of products or to determine the attitude of consumers on various markets. Another excellent Google tool is Consumer Barometer, which offers data on the use of electronic devices in various countries. By using this tool, an entrepreneur can study, for example, how the internet is used by the target audience. In its turn, Global Market Finder gives an idea about the product potential on international markets.

Whereas the tool SimilarWeb can be used for reference during customer research. The free version of this tool offers only a few functions; however, it is enough to find out the approximate number of visitors of competitor's homepage or mobile app, and their behaviour. This tool can also be used to find out, what advertising platforms are used by similar entrepreneurs for attracting customers.

Communication platforms become an increasingly crucial marketing tool. Social media profiles are must-have for small entrepreneurs even to a larger extent than the company homepage. Both Facebook and Instagram constantly create new tools for content publishing and reaching audience, and make their platforms more business-friendly. For example, the latest function on Instagram allows creating galleries and adding the direct communication option – to write a message or e-mail. Also the social network Facebook has a range of tools, for example, Facebook store, which can help to create a flow of visitors to the website or online store and display products.

A company website can be made on Blogger or Wordpress platforms, which is easy and free of charge. Small and individual manufacturers, who want to enter international markets, certainly can try to create Etsy profile. The tool Infogr.am, which is created in Latvia, helps to create infographic visuals, which serve as excellent materials for creating content for social networks. An excellent assistant for creating simple templates is canva.com – a platform, which offers hundreds of design frames, fonts and photo arrangements. By putting some effort into this tool, it can be used for creating an advertisement poster or template, which will successfully diversify the content of social network profiles. Similar functionality is offered also by Pablo.

To reach customers outside social networks, a convenient assistant is Mailchimp – an online tool for creating various customer newspapers and other reports, and sending them to own databases. It helps to generate easy and modern design solutions and send them to the target audience. An excellent platform for measuring and analysing efficiency of social network activities is Sproutsocial, which also can be used for content planning and promotion of audience involvement.

A useful tool for studying statistics of website visits and other indicators is the already known Google Analytics, which gives many valuable insights in how the target audience uses your website, how long they stay in certain sections and from which channels the highest number of visits is generated.

Recommendations for cooperation of companies representing the wood industry sector, educational institutions and scientific research centres

While conducting analysis of cooperation of companies representing the wood industry sector, educational institutions and scientific research centres in Vidzeme Planning Region and Võru County, a significant difference in cooperation mechanisms can be observed. Cooperation institutions established in Võru County are projects of the Entrepreneurship Development Foundation (EAS), initiated by the Ministry of Environment of Estonia. A structural unit “Woodworking and Furniture Manufacturing Competence Centre (PMKK)”, which is currently known as TSENER, is established at the Vocational Education and Training Centre (VKHK). It is a national project, which is implemented in Võru County, and its cooperation partners are all associations and clusters in the sector, as well as the largest companies in the sector. Also another four similar centres in other sectors of the national economy are established in Estonia. The other project implemented by the Entrepreneurship Development Foundation (EAS) in Võru County is establishment of the regional woodworking cluster¹⁴. Also another three clusters operate in the woodworking and furniture manufacturing sector in Estonia¹⁵, all of them being cooperation partners of TSENER.

As regards Vidzeme Planning Region, there are practically no such cooperation activities coordinated at the sectoral level. All activities are mainly implemented within various projects. In the 2007-2013 EU funds planning period, support in Latvia was granted within the cluster programme to 11 clusters, providing the financing of 5.5 million euros, but a requirement was set, that only one cluster (in Estonia – 4!) is supported in each sector. At the beginning of the period, the cluster programme provided support for establishment of the Furniture Cluster, but later the programme supported establishment of the Wood Construction Cluster, which still operates. In the period until 2020, 14 projects were supported¹⁶.

The total financing of the European Regional Development Fund for the cluster programme comprises 6.2 million euros. The maximum amount accessible per one project is 415 thousand euros, and the project implementation period is 4 years. Therefore, the only opportunity for companies of the project target group in Vidzeme Planning Region to use the cluster programme is to cooperate with the Wood Construction Cluster¹⁷. Unfortunately, it is not enough, because the project target group involves small and medium woodworking companies and furniture manufacturers, whereas activities of the cluster are directed in particular to supporting cooperation of its members.

Consequently, the biggest opportunities for developing cooperation are offered by cross-border activities, but to engage in such activities it is advisable to establish an institution in Vidzeme Planning Region, which would provide similar support to small companies in the region as already done by TSENER. Otherwise cooperation will become scarce as soon as the project will end.

Unfortunately, Vidzeme Planning Region does not have such projects and financial opportunities as it was in Estonia. Therefore, it is recommended to assess the investment already made in various projects and institutions and to attract this investment through implementation of various

¹⁴ <https://puiduklaster.ee/en/>

¹⁵ <http://www.estonianclusters.ee/estonian-clusters-2/>

¹⁶ <http://www.estonianclusters.ee/estonian-clusters-2/>

¹⁷ <http://woodhouses.lv/en>

organisational activities for supporting cooperation of companies. The largest investment in objects useful for small and medium woodworking companies and furniture manufacturers in Vidzeme Planning Region is made in institutions of vocational education. Considering, that by deciding on establishment of such an institution, co-financing of EU-funded projects is not identified, and the most realistic possibility to attract co-financing of companies for establishment of such a centre would be in Ranka territorial structural unit of Valmiera Technical School. Of course, Vidzeme University of Applied Sciences, Cēsis Technology and Design High School and associations of the sector should be involved, but the location in Ranka is perspective with the fact, that a large employer is located nearby, which will definitely provide support for maintaining the technical base. It is only one alternative, but the proposal is to create this cooperation centre as a structural unit of vocational education institution, because the investments made in these institutions still do not have the planned return and such activities for promoting cooperation of companies would definitely be interesting for Priekuļi Technical School, Cēsis Technology and Design High School and Vidzeme University of Applied Sciences. The main benefit of educational institutions from such cooperation would be increase of lifelong learning activities, which is one of the challenges to deal with in the entire vocational education system. Therefore, VPR could undertake the initial administrative and organisational function of such cooperation.

3 CROSS-BORDER COOPERATION POSSIBILITIES BETWEEN VPR AND VÕRU COUNTY

3.1 COOPERATION POSSIBILITIES OF VPR AND VÕRU COUNTY IN WOOD INDUSTRY

While developing cooperation with Võru County, it is recommended to discuss with TSENTER team the areas of services that could be developed in Vidzeme Planning Region. The areas, which are already available in Võru County, should not be duplicated in Vidzeme Planning Region, which does not mean, that technical support for a target group company could not be similar. Instead, when offering such technical support, the experience and, sometimes, also the capacity of the cooperation partner has to be used.

The hackathon, organised in Võru County within the framework of the project, has gained wide publicity and also high appreciation from its participants; therefore, it should be organised on regular basis. Only compliance of works with the design status has been criticised by design professionals. Therefore, when organising next hackathons, the work task should be formulated differently in cooperation with designers. Since the hackathon was a project activity with project financing, it is necessary to assess the possibility to organise such an event without project co-financing.

To motivate the existing and new entrepreneurs to engage in cooperation activities, it is recommended to participate in already existing public activities with information of cooperation activities. For example, on the Wood Days in Cēsis and on Vidzeme Entrepreneurs' Days.

The cooperation between Võru County and Vidzeme Planning Region through various projects has already taken shape in the area of wood products design in the form of hackathon and design seminars. These projects have already attracted the interested parties from the target group, thus creating basis for further cooperation. In Võru County, these activities are already coordinated by TSENTER, whereas in Vidzeme the initial organizer's role should be assumed by VPR. In design seminars, further cooperation coordination models could be discussed.

In its turn, the cooperation of wooden buildings manufacturers of regions can be successfully linked to Latvian and Estonian Wood Construction Clusters, because in both countries they have received support for marketing and cooperation promotion activities. Therefore, it is advisable not to organise parallel activities, because in Vidzeme Planning Region and Võru County there are members of these clusters and it is very realistic, that some activities of clusters could be organised in Vidzeme Planning Region and Võru County, involving manufacturers of wooden houses operating in these regions.

3.2 COOPERATION MODELS IN THE REGIONS AND POSSIBILITIES OF THEIR TRANSFER

The economic cooperation ties between Estonia and Latvia are very close, and in terms of the total goods trade turnover, which equals to 1.94 billion EUR, Estonia occupied the second place among external trade partners of Latvia in 2016. It should also be noted, that Estonia is the second largest

export market of Latvian goods. The close economic ties of both countries are confirmed by several large-scale economic cooperation projects, the most recent of which was opening of the modernized birch plywood factory of “Kohila Vineer”, the Estonian subsidiary of the Latvian woodworking group “Latvijas Finieris” in November 2016.

Starting from 2004, direct cross-border cooperation between Latvia and Estonia is implemented within the framework of programmes of the European Union Structural Funds, as well as within the Estonian - Latvian cross-border cooperation promotion working group. Various projects in education, culture, tourism promotion, environmental protection, healthcare and other areas have been implemented with financial support of EU.

Within the European Union structural and investment funds planning period 2014-2020, cooperation between Latvian and Estonian institutions is implemented within INTERREG Estonia-Latvia cross-border cooperation programme. The programme implementation is managed by the Ministry of Finance of Estonia, which also performs the functions of the national responsible authority. The functions of the national responsible authority in Latvia are performed by the Ministry of Environmental Protection and Regional Development. The programme is financed by the European Regional Development Fund. Information on the projects implemented within this programme is summarised on the website¹⁸.

The target group companies of W&F project directly and indirectly also comprise the target group of several other cross-border projects. Therefore, it is very important to follow all cross-border activities, because it will not only allow to avoid duplication of activities, but also to find synergy. Fragmentation of activities can mitigate the motivation of target group entrepreneurs to use project results. An interesting opportunity for target group companies of the W&F project definitely will be the EU-funded ProtoLab network¹⁹, which is established to unite the Estonian and Latvian entrepreneurs and newly-established companies, promote exchange of knowledge, improve marketing and, consequently, also faster launching of products on the market. The purpose of ProtoLab network was to create a competence centre, which would provide local entrepreneurs and newly-established companies in Estonia and Latvia specialized support for product development and access to modern engineering equipment. Namely, this project established a cross-border platform for creating cooperation networks and exchange of knowledge, paying particular attention to the aspects of product development and prototype building, for example, for development of concepts, CD/CAM designing, 2D and 3D visualisation and modelling, fast prototype building, as well as testing and quality control. Despite the fact, that this network is rather directed to development of IT and mechatronics products, introduction of these products is among the development directions also for the target group of W&F project. In general, this cross-border network combined the mutually supplementing skills of project partners in order to help with faster development of projects from the idea to the market, and helped to improve the general competence of entrepreneurs and technical workers. The total investment in the project “Increasing Competitiveness of Estonian and Latvian Mechatronics Sector Through Creation of Integrated Network of Product Development, Training and Testing Centres (Protolab Network)” comprises

¹⁸ <https://estlat.eu/>

¹⁹ <http://www.protolab.io/en/>

EUR 1,068,100, the investment of the European Regional Development Fund comprising EUR 907,885 within the framework of the operational programme “Estonia-Latvia” 2007–2013 planning period. The investments were made in accordance with the priority “Higher competitiveness of the programme region”.

The opportunities of the target group of W&F for development of cross-border cooperation are in the fact, that both regions have strong academic institutions with already gained experience of cross-border cooperation. Vidzeme University of Applied Sciences cooperates with Estonia in terms of exchange of students and lecturers with Pärnu College of the University of Tartu, Tallinn University, and Kuressaare College of Tallinn University of Technology. Research and educational institutions are directly or through their employees involved in practically all cross-border cooperation projects. Therefore, although there are some projects, where the target group is determined according to regional borders, organizers of activities come from the same organizations and, basically, universities and research institutes of Valmiera and Tartu regions are involved in majority of cross-border cooperation projects as knowledge centres.

Of course, there are also cooperation projects, which are implemented by particular municipalities, but their activities are inevitably linked to the competence and capacity offered by these knowledge centres. For example, in the Interreg project, where the involved partners are Salacgrīva municipality with cooperation partners from Latvia, and Mulgimaa Development Centre from Estonia, various very similar activities are implemented – exchange of experience among entrepreneurs in Estonia and Latvia, ideas about joint marketing, joint participation in fairs, study trips and contact events. The purpose of this project is to promote the entrepreneurship spirit among young people, who are residing in the partnering countries, in rural areas. Other purposes involve encouraging young people to start their own business by acquainting them with the good experience in the region, and to promote cooperation between Estonian and Latvian youth. Also activities for teachers and pupils are planned²⁰.

A similar situation can be observed in activities of chambers of commerce and industry, for example, in the project Delbi ²¹. Also in this project the target group involves small and medium woodworking companies.

Therefore, it is recommended to achieve synergy in the work of all institutions involved in the cross-border cooperation with common target groups. Otherwise, a situation arises, where similar activities are offered to companies within various projects. Of course, project implementers themselves are informed about all activities, but they have to consider, that target group entrepreneurs and future entrepreneurs are not informed to the same extent and can get confused by receiving similar offers from various institutions, at the end choosing not to engage in any of them.

4 CONCLUSIONS AND RECOMMENDATIONS

²⁰ <https://www.keep.eu/keep/project-ext/43453/Estonian%20and%20Latvian%20entrepreneurs%20cooperation%20platform>

²¹ <https://www.koda.ee/en/about-chamber/projects/delbi2>

1. Increasing of export capacity of manufacturers of furniture and wood products in Vidzeme Planning Region (Latvia) and in Võru County (Estonia) is one of the most topical development challenges of both regions, there are objective preconditions and fully unused opportunities.
2. Among the most topical issues in both regions is lack of competences in product development and modern marketing, and it was also confirmed both in interviews with companies and during activities organised within the project (focus group seminars, hackathon).
3. There is no institution in Vidzeme Planning Region, which implements systematic work with woodworking and furniture, especially design furniture, manufacturing companies. Although Võru County is much smaller than VPR, it has two such institutions – TSETER and small companies cluster.
4. Vidzeme Planning Region may undertake only the coordinating role in solving challenges identified during the study; therefore, in order to develop cross-border cooperation in this area, national scale associations, which operate in woodworking and furniture manufacturing sectors, shall be involved.
5. One of the key driving forces of creating high value added in both regions are product design competences; therefore, activities implemented in this project should be continued, involving the best experts of both regions in organisation of these activities.
6. During the project, more attention was paid to studying of challenges for creating value added, but also selling of these values is very crucial. Therefore, for the future cross-border cooperation activities it is recommended to strengthen the significance of digital marketing in promoting product recognition.
7. During the study, it clearly marked out, that the competences required for design and manufacturing of wood products is constantly changing; consequently, a similar analysis of required competences as in Estonia should be initiated also in Latvia²².
8. VPR in cooperation with Tsenter could include in the plan of project results publicity activities a presentation of the required competences research study (OSKA), which was conducted in Estonia, and the process of implementation of acquired results. Such presentation would surely promote motivation of institutions to engage more actively in the efforts of VPR and Võru County to promote innovation of wooden products and furniture, and increasing of export capacity of manufacturers.

²² <http://oska.kutsekoda.ee/en/field/forestry-timber-industry/>