Final Assessment of Norwegian Financial Mechanism 2009-2014 programme "Green Industry Innovation"

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This report was developed for the purpose of carrying out the final assessment of the Norwegian Financial Mechanism Programme LV06 "Innovation in Green Production" of the 2009-2014 period and constitutes its first part.

Objectives were executed starting from 14 August 2017 until 14 December, 2017. Within the framework of the objectives, we executed Articles 3.2.1 to 3.2.5 of the work task under technical specifications (hereinafter – the Technical Specifications) of the procurement "The Final assessment of the 2009-2014 Norwegian Financial Mechanism Programme LV06 "Innovation in Green Production", ID No. EM 2017/43.

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If you have any questions about this report, please contact Anita Kalnina (+371 6709 4400, anita.kalnina@lv.pwc.com).

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The terms and abbreviations used in the document

1. table. Explaining terms and abbreviations

Number	Terminology / Abbreviation	Explanation
1.	CIT	Corporate Income Tax
2.	CO2	Carbon monoxide
3.	CO2e	Carbon monoxide equivalent
4.	EN	Enterprise Register
5.	Environmentally friendly business	A business supported by Programme LV06
6.	"green" business	Business which results in technologies, services and products aiming to reduce or change environmental impact by energy saving, reduction in pollution, waste management (recycling), improving ecological design or business environment
7.	"green" innovation	Scientific or technical innovation (technology, process, product) aiming to save energy, reduce pollution, enhance waste management (recycling), improve ecological design or business environment
8.	GTI	Green Technology Incubator
9.	LIDA	Latvian Investment and Development Agency
10.	NACE	European industry standard classification system for classifying business activities.
11.	Open Call	Open project call
12.	PIT	Personal Income tax
13.	Programme LV06	Norwegian Financial Mechanism Programme LV06 ,,Innovation in Green Production" for years 2009.-2014.
14.	PwC	*PricewaterhouseCoopers* SIA
15.	SGS	Small- Scale Grant Scheme
16.	SRS	State Revenue Service
17.	SSIMC	State Social Insurance Mandatory Contributions

Summary

The overall objective of Programme LV06 was to facilitate the reduction of economic and social disparities in the European Economic Area and strengthen bilateral relations between Norway and the Beneficiary States through financial contributions. The specific objectives of the programme – increasing competitiveness of environmentally friendly businesses, fostering emergence of new innovative businesses and development of advanced or significantly improved environmental technologies, services, products - are achieved.

The macro level impact of Programme LV06 on the achievement of overall objectives of Norwegian Financial Mechanism 2009-2014 is insignificant which is explained by relatively small financing under Programme LV06. The achievement of general objectives pursued by the Norwegian Financial Instrument with this amount of resources is not identifiable. However, the specific objectives can be considered achieved in the majority of fields.

In the period between 2009 and 2014, 153 businesses participated in the Programme .At the time of preparation of this evaluation (01.10.2017), the participants of Programme LV06 had received 71% of the total public financing initially allocated to the programme. Proportionally, the participants of Open Call managed to absorb the largest amount of the allocated funding - 87%, conversely, the investment in bilateral fund makes only 13% of the allocated public financing. As for the bilateral cooperation, it must be taken into consideration, however, that the activity was still in progress at the time of preparation of this report. When analysing the legal status of participants it is evident that there is an even distribution among the groups of businesses. The majority of the Programme LV06 participants (33%) are micro-enterprises, the second highest share (24%) is small enterprises, 21% are medium-sized enterprises, 12% are large enterprises and 10% are private persons.

The evaluation of the achievement of the objectives and monitoring indicators of Programme LV06 suggests that the development of environmentally friendly innovations in Latvia has been promoted; the specific objectives of the programme have been achieved in spite of abandoning the realization of certain acitvities.. The key contribution of Programme LV06 is the change in attitude and promotion of new mindset, proving that “green” innovations are sustainable. It is remarkable that Programme LV06 has provided a number of start-ups with an opportunity to design and develop environmentally-friendly innovations.

The analysis of annual financial statements of Programme 06 participants indicates a diversity of businesses that have received the support. SGS and Open Call participants business areas do not overlap. Majority of the participants operate in the following areas: other research and experimental development in natural sciences and engineering; business consultancy and management; engineering activities and related technical consultancy; computer programming.

The evidence of the direct and indirect economic impact of the Programme LV06 on the economy and companies is an increase in tax contributions from participants. Notable is the increase in exports of manufactured goods and services; globally competitive and sustainably manufactured products are created. Efficiency increase at several companies has been facilitated by optimization of business processes and introduction of environmentally friendly technologies. The leverage effect or indirect effect on the Latvian economy is important as each invested euro generates further returns. An important socio-economic impact of LV06 is also observed, which is indicated by the creation of new jobs: at the time of the development of the evaluation (01.10.2017.) 126 new jobs have been created (within SGS and Open Call).

The information provided by program participants indicates the following factors contributing to the achievement of the objectives: program objectives synergy with the objectives of the company, management and company personnel. Consumer related factors - demand for goods or services should be also noted. The key reasons for not utilising the entire financial support were difficulties to forecast financing needs and the development of technology; consequently the allocated funds exceeded the actual spent. However, the major obstacle mentioned by entrepreneurs is the uneven cash flow of funding, the need to attract additional financing and unforeseen additional own expenses.

For programs of similar nature it is recommended to reduce the fragmentation of activities and simplify the mechanisms of programme management, supervision and control in order to circumvent obstacles to timely execution of activities and absorption of financing.

Conclusions and recommendations

Conclusions

Programme LV06 led to the implementation of environmentally friendly production innovations, i.e., technologies, processes, services and products designed to promote energy efficiency, pollution reduction, waste recycling (material reuse) and to improve the ecological product design and corporate environmental management.

Summary of the actual performance and assessment of the progress on the planned deliverables of Programme LV06:

- The **153** businesses benefiting from the support have declared that Programme LV06 has led to the creation of **126** jobs in total from 2014 to 2017.
- Based on information provided by the businesses, reduction of environmental pollution (e.g., employment of the *PlayGineering Systems* Ltd service contributes to CO_2 emissions reduction of 295 tonnes per year) and energy consumption (*PlayGineering Systems* Ltd*:* a reduction of 499 MWh per year[1]) was promoted.
- Reduction of industrial waste and increased recycling by **682** tonnes (*SIA Biokompozītmateriālu institūts* reached household waste reduction of **32** tonnes[2] and ZAAO LTD reached a landfill waste volume reduction of 650 tonnes).
- **31** environmentally friendly products were created, new processes were implemented in **5** businesses and new technologies were introduced in **5** businesses. For instance, *LINUM COLOR Ltd*. product: interior oil, which is produced without using water, ensuring the preservation of this resource, products from recycled materials (for example, *Baltic3d.EU Ltd.*: 3D printing thread from recycled plastic), services for improving the use of renewable energy (for example, *Conak Steel Ltd.*: development of solutions for renewable energy and energy efficient biomass drying) products for the more efficient use of water resources (e.g., biogranule filter), etc.
- The project facilitated creation of products which are exported overseas, for example, the capillary tubes manufactured by *JSC Wasserkabel* Baltic are exported to China[3], as well as an increase in the exports of enterprises, thus contributing to the local economy: *SIA Vizulo* increased their exports from 30% in 2014 to approximately 90% in 2017 (exporting to: France, Switzerland, Finland, New Zealand). POLIPAKS NT Ltd. are planning to double their production, including export volume (the company sells 60% of its products in the Baltic states and 40% outside the Baltic states). *SIA Pellet 4Energia* export 100% of their production, therefore, increasing their production also increases their exports. *SIA RK Metāls group* increased production capacity and as a result, increased the number of export countries from 8 before the start of the Programme LV06 to 26 countries at present.
- Private funding attracted during the project constitutes **EUR 7'977'648.**

[1] Due to differences in the method of accounting for the results of the reduction of environmental pollution, it is not possible to provide more detailed information, since part showed a share of the previous volume, part indicated the total volume.

[2] Compared with polyethylene or bioplastics, if 36 tonnes of biopolymer material are produced. Source: Letter No. 2.2 / 08 of 05.25.2017, *SIA Biokompozītmateriālu institūts* final report.

[3] Ventspils portal: A heating and cooling system plant of JSC Wasserkabel Baltic was officially opened in Ventspils. Available: http://www.ventspils.lv/lat/ekonomika/124200-ventspili-svinigi-atklata-apkures-un-dzesesanas-sistemu-razotne-as-wasserkabel-baltic-(video,-foto)

Recommendations

Advancing efficiency of program implementation and management

- It is advisable to strive for faster development of the programme's regulatory framework and a quicker involvement in the programme in order to be able to co-operate with a larger number of Norwegian partners.
- Consider possibilities to shorten the internal coordination procedures related to the implementation of the programme of the Latvian state administration.
- Greater flexibility is needed to update the legal framework of the program in order to enhance the upgrading of procedures if they impede the implementation of the programme.
- It is advisable to strive to prevent fragmentation of programme activities, as the implementation of five different activities for a comparatively small programme with a limited amount of financial resources increases the internal administrative burden of implementing institutions
- It is advisable to reduce the administrative burden for programme participants from donor partner countries by simplifying the reporting process on expenditures and adjusting it to common practices in donor countries
- Consider the possibility of applying a type of project funding that does not involve the allocation of costs in small portions.
- Ensure succession in execution of programme activities to benefit from their mutual complementarity. For example, Bilateral fund activities aiming to broaden Latvian entrepreneurs' outlook and promote cooperation should be carried out at an early stage of the programme.
- The success factor in carrying out Bilateral fund activities is the selection of most suitable Norwegian partners. It is advisable to formalize application criteria for Latvian participants and specify cooperation themes in order to increase the quality of events and boast efficiency of financial support.
- Reduce personnel turnover in programme management team, increase motivation and understanding about entrepreneurs' needs.

Improvements in programme assessment methods

- Define clear objectives for each part of the program and outline priorities, also for Bilateral fund activities
- It is advisable to review the methodology of measuring the number of created new jobs within the framework of financial support, as project reports must present only the indicators achieved in frames of the project and do not apply to the entire enterprise.
- It is advisable to develop a common methodology for measuring CO_2 emissions' decrease to be utilised by all programme participants of the project to compile, compare and analyse the results of the programme.
- It is advisable to evaluate the impact of the programme on the financial data of participants within the next programme (turnover, profit, efficiency, etc.) at least one year after the conclusion of the programme.

Improvement of program results sustainability

- It is advisable to evaluate the possibility of continuing the operation of Green Technologies Incubator (GTI) in the field of "green" innovations, including attracting financing for incubator operation outside of Norway grants or integrating them within the framework of other incubators (for example, RTU, LU, LIAA incubators). If the operation is to be terminated, it is advisable that existing incubators include in their KPI the development of eco-friendly innovations.

Introduction

Purpose of the document

“The Final assessment of the 2009-2014 Norwegian Financial Mechanism Programme LV06 “Innovation in Green Production” (hereinafter – Programme LV06) is prepared in accordance with the requirements of the Programme Operator and in accordance with the Cabinet of Ministers Regulations No.181 of April 2, 2013 on the "Implementation of the Norwegian Financial Mechanism 2009-2014 Programme" Innovation in the field of green "production (hereinafter - Cabinet of Ministers Regulations 181) and the Cabinet of Ministers Regulations no1442 of December 10, 2013.

The purpose of the document is to assess the contribution of the Programme LV06 of the Norwegian Financial Mechanism 2009-2014 in increasing the competitiveness of “green” businesses and to promote “green” innovation and entrepreneurship by assessing the impact of investments on the aspects that characterise the economic activities of businesses as well as on innovative environmental technologies, service and product development and deployment in business.

In accordance with the requirements of the Program manager, the assessment was implemented by performing five consecutive activities for the assessment of the Programme LV06 strategy, operational model and process of the programme and the analysis of the Programme LV06 ecosystem. At the end of ten activities carried out, conclusions and recommendations were drawn up and a deadline for their implementation was set to improve the implementation of similar programmes in the future.

To evaluate Programme LV06 strategy, operational model and process, the following activities were carried out:

1. Statistical summary
2. Impact assessment
3. Qualitative analysis
4. Assessment of the achievement of objectives and monitoring indicators
5. Sustainability assessment

The following activities were carried out for the Programme LV06 ecosystem analysis:

6. Assessment of political, economic and administrative conditions
7. Analysis of the progress of bilateral relations
8. Impact assessment of additional measures
9. Analysis of publicity and informative activities
10. Compliance with horizontal priorities

The final result of the implemented activities is the evaluation report, which contains the conclusions, recommendations and the recommended deadline for their implementation.

The goals of Programme LV06

The goal of Programme LV06 is to boost the green competitiveness of businesses, including the competitiveness of existing businesses, environmentally friendly innovations and environmentally friendly business.

Programme LV06 specifically aims to promote the formation of new innovative enterprises and the development and implementation of new or significantly improved innovative environmental technologies, services and products in the field of business in the following areas: production of renewable energy, development of eco-friendly and energy-efficient materials and products for houses and other buildings, clean logistics, water management, waste management, eco-design, any other product, technology or process related improvements that contribute to the efficient use of electricity, reduction of emissions and less resource consumption.

Ministry of Economics of the Republic of Latvia is the manager of the Norwegian Financial Mechanism Programme "Innovation in Green Production" of the 2009-2014 period. Implementation of the programme in cooperation with the Latvian Investment and Development Agency (LIDA)[4].

Programme LV06 parts

Programme LV06 has following parts:

- The predetermined project (including the pre-incubation and incubation fund), implemented by green technology incubator (hereby GTI): to create and develop businesses by providing incubation and pre-incubation services in areas supported by the programme, providing knowledge transfer between universities, research organisations and businesses.

- Small scale grant scheme: to promote the development of newly launched commercial activities by providing support to businesses in the development and implementation of new or significantly improved products, services and technologies.

- Open Call (hereby Open call): to support the introduction of innovative environmental technologies, services and products by organising a project competition.

- Bilateral fund at the Programme LV06: to promote the networking, exchange of good examples of experience, knowledge, technology and good practices between registered traders in the Republic of Latvia and donor government institutions and businesses.

- Complementary actions: exchange of experience, knowledge and good practices amongst the programme managers of various countries.

[4]Ministry of Economics *Green innovation*. [Online] available: https://www.em.gov.lv/lv/nozares_politika/inovacija/zala_inovacija

Analysis of Programme LV06

Assessment methods, Information and data sources

The following methods were used in the final assessment of the Norwegian Financial Mechanism Programme LV06 "Innovation in Green Production" of the 2009-2014 period:

1) research on programme implementation processes, identification of challenges and formation of interrelationships, intervention logic analysis, by analysing whether there is a rational link between the goal, predetermined indicators and activities to be supported;

2) quantitative data analysis (data mining, gathering, grouping and graphic representation) to determine the data set averages, trends, dispersion, correlation and other indicators;

3) analysis of the progress report documents submitted by enterprises and businesses supported by the LIDA;

4) direct onsite interviews and computer-based questionnaires with all the officials responsible for the implementation of Programme LV06;

5) collection of data on the information available on the mass media in Latvia, relating to the publicity reports of Programme LV06 since the start of the Programme;

6) telephone interviews with 31 entrepreneurs, who have received support, all participants of a public tender and a SGS[5];

Internet survey, using a web survey tool, completed by 68 respondents – beneficiaries of Programme LV06 in one or more parts of the Programme.

The list of information and data sources used in the assessment are available in the section "Information and data sources used".

PwC coordinated the key questions and the list of interviewees/surveyees with the Client.

Description of the analysis of specific data groups:

Participants identified in Programme LV06

In the SGS, projects were approved for 24 enterprises, three of which discontinued their participation in the Programme (Grandeg Ltd., *SIA LL Innovation* and *SIA ESCO Būve*). PwC addressed the 21 businesses who participated in the Programme and introduced environmentally friendly innovation projects. From the 21 businesses addressed, 20 replied and PwC was not able to reach one of the participants (*SIA Greeneu*). One natural person participated in the Programme with two projects and under two legal names (Tom Beinerts: *SIA MHD Research Centre* and LLC EPM Riga). Interviews were attended by the senior management of companies.

13 companies participated in the open project call "Support for the Introduction of Green Technologies in Production". PwC addressed all 13 and received replies from each participant of this programme. Two participants of the programme also took part in the SGS: Baltic3d.EU Ltd. and *SIA Vizulo*.

Request to participate in the online survey was distributed to 183 respondents (to all participants of the programme), of which answers were provided by 68. The aforementioned project (including the pre-incubation and incubation fund), which was implemented by the Green Industry Innovation Centre, had 153 participants, of which 87 were individuals and 66 were legal entities. 15 of the participants of this programme continued their

[5] One of the SGS participants – *SIA Greeneu* – did not respond.

participation in the SGS. From 153 participants of the aforementioned programme, who were addressed, 32 participants replied.

The Bilateral fund at the Programme LV06 had 102 participants (from June 2013 to April 2017), five of which took part in the events repeatedly, 7 participated in the SGS[6] and two members[7] participated in the open project call "Support for the Introduction of Green Technologies in Production". From 77 members addressed, we received replies from 12.

The assessment methodology of the environmental impact improvement in the part "SGS" of Programme LV06

One of the main objectives of the part "SGS" and "Open project call "Support for the Introduction of Green Technologies in Production"" of Programme LV06 was the reduction of environmental impact. In the office of LIDA, PwC was able to become acquainted with the details of the results, as indicated in the final reports submitted by the businesses, achieved by Programme LV06 participants. The data is based on the environmental impact declared or admitted by every business and the results achieved were not measured. In the analysis PwC used the data retrieved from LIDA and did not check its accuracy or calculation methods. The environmental indicators of the programme are disclosed in the section: "Annex 4 – Account of Achievements Connected to the Environmental Impact of a Business"

In the SGS, 10 participants indicated environmental indicators in tonnes per year (t/y). In the cases where traders specified the changes in impact in a number of years, the value was converted to units of measurement – tonnes/year. One enterprise disclosed the emissions changes against the emissions levels before the support and three participants stated a reduction of energy consumption percentage-wise against the levels before the receipt of support. Due to differences in the method of accounting for the reduction of environmental pollution, it is not possible to provide more detailed information.

In the open project call "Support for the Introduction of Green Technologies in Production", 8 entrepreneurs indicated the environmental indicator (reduction of CO_2 emissions) in tonnes per year (t/y) and 3 stated a reduction of current CO_2 emissions percentage-wise.

Data on newly created jobs

Data on new jobs was obtained from the final reports, submitted by businesses, with which PwC became acquainted at LIDA, and it was compared with the data of the given year in the annual report of the businesses, published in the Lursoft database. The information provided to LIDA by the businesses far exceeds the annual report data of the businesses. The reasons are probably related to the following factors:

1) 2017 data is not yet available in the annual reports of the businesses,

2) the data indicated in the report is only connected to the project-related part or department of the enterprise, and the data of the Register of Enterprises covers the entire enterprise.

Project NACE code

Given the fact that the scope of the enterprises, which, according to the Articles of Association of the enterprises, is available in the Lursoft database, has diversified, the assessment used NACE codes, which are specified in the LIDA available documents in accordance with the project scope in the part "SGS" and "Open project call "Support for the Introduction of Green Technologies in Production"" of Programme LV06. In the aforementioned project (including the pre-incubation and incubation fund) and the Bilateral fund at the Programme LV06, NACE codes were used from the Lursoft database, indicating the first of the specified fields of activity.

Competing enterprises for the comparison of metrics

In order to undertake proper propensity score matching within the framework of the counterfactual analysis, during the interviews PwC asked entrepreneurs to name similar (or competing) enterprises scope wise in Latvia. These metrics were necessary to compare the activities of businesses that had benefited from Programme LV06 with the businesses who had not received the support.

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[6] *SIA Thermeko*, *SIA Nipon*, LINUM COLOR Ltd., *SIA EPM Riga*, *SIA AV Recycling*, *SIA Vizulo*, *PolyLabs SIA*.
[7] ZAAO LTD, *SIA Vizulo*.

Although quantitative analysis (counterfactual assessment) provides evidence-based insight into how much support has contributed to the fulfilment of the Programme LV06 goals, the channels, and specific ways the support has aided businesses or why the support was not acquired fully cannot be identified with the methods of quantitative analysis. Besides, in the given situation it is not possible to apply counter-factual analysis because for application to the companies, the data of project beneficiaries should be comparable according to certain parameters. In this context, project beneficiaries have:

1) only created a prototype and therefore there are no competing companies;

2) the product or service is unique and has no competitors;

3) project beneficiaries do not have competitors within the Latvian territory;

4) project of project beneficiaries only relates to one structural unit of the company and comparison of the data of the whole company shall not provide the required comparison.

As well as in most cases too little time has passed since the implementation of the project (production of the goods, provision of the service or use of technology) to measure results and compare them with other companies.

Activity 1: Programme LV06 Statistics summary

Among the recipients of the project, enterprises from the Riga region dominate, yet the funding is well-balanced amongst companies from various sizes and covers a wide range of business areas

A statistical summary of the enterprises provides an outlook of the enterprises that received financial support in the framework of Programme LV06, according to how the financing is distributed among project beneficiaries in different parts of the Programme LV06; how the financing is distributed among the various industries of the enterprises; how the funding is distributed across small, medium and large enterprises.

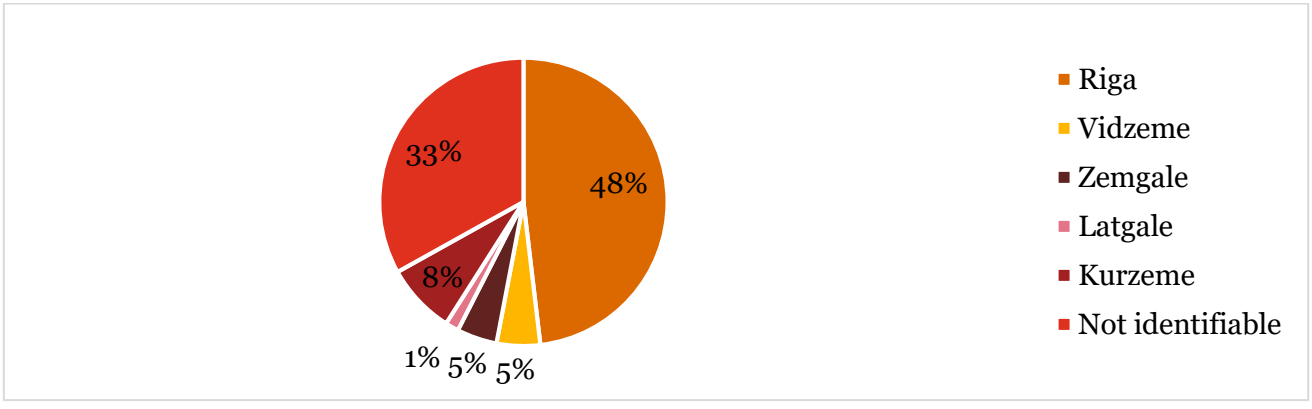
1.1 The statistical information is segmented according to the businesses belonging to the region of Latvia

Businesses' distribution in relation to the region of Latvia – according the number of LV06 programme participants

In the Programme LV06, the lion share of the participants (48%) perform their activities in the Riga region based on their legal address, the second highest portion (33%) are private persons, therefore their belonging to a certain region is not identifiable, 8% are in Zemgale region, 5% in Vidzeme and Kurzeme and 1% Latgale region (*1.figure. Programme LV06 participants' distribution across the regions of Latvia. Source: LIDA, Lursoft, PwC analysis*). The situation is slightly different when examining each program LV06 activity (*See appendix 1.1.*):

- The participants of a SGS are 76% Riga, 10% Kurzeme, 9% Zemgale and 5% Latgale region.
- The participants of the Open Call are located: 46% - Riga, 31% Vidzeme, 8% Zemgale and 15% in the Kurzeme region.
- The participants of the predetermined project (including the pre-incubation and incubation fund) (the determination of the distribution of the private persons per region of Latvia is not possible) is: 74% in Riga, 11% in Kurzeme, 9% in Zemgale and 6% in the Vidzeme region.
- The distribution of participants in the Bilateral fund at the Programme LV06 has been: 72% in Riga, 13% in Kurzeme, 6% in Vidzeme, 4% in Latgale and 4% in Zemgale region.

1. Figure. Programme LV06 participants' distribution across the regions of Latvia. Source: LIDA, Lursoft, PwC analysis



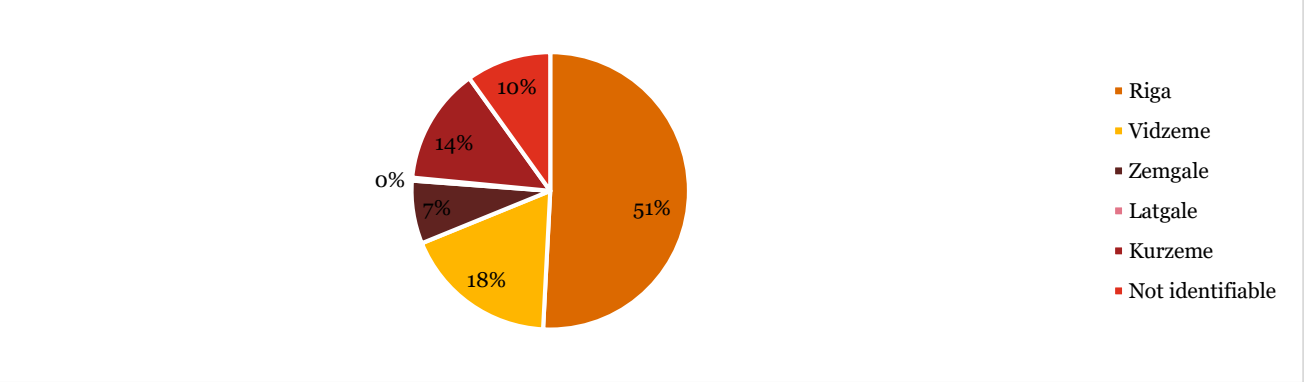
Businesses' distribution in relation to the region of Latvia – according the number of LV06 programme financial support volume

Comparing the distribution per amount of funding received with the distribution per number of Programme LV06 participants, it can be concluded that, based on the company's registered office, most (**51%**) participants

are in Riga region. Unlike the number of participants, according to the amount of funding, the second largest (**18%**) beneficiary is in Vidzeme region, **14%** is in Kurzeme and **7%** in Zemgale region (*2. Figure. Programme LV06 participants' distribution across regions of Latvia per financial support volume. Source: LIDA, Lursoft, PwC* analysis). Also, according amount of funding, the situation of the participants in each region of the Programme LV06 slightly differs (*1.1.*):

- The distribution according to the allocated financial support volume, 75% of the Small scale grant scheme are located in Riga, 14% in Kurzeme, 9% in Zemgale and 2% in Latgale region.
- Open Call: 47% are in the Riga region, 29% Vidzeme, 8% Zemgale and 16% in the Kurzeme region.
- In the pre-defined project (including the pre-incubation and incubation fund) the division of businesses (the determination the location of the private persons not possible) is: 32% in Riga region, 57% are unidentified (natural persons), 4% are Kurzeme, 4% Zemgale and 3 % in Vidzeme region.
- The distribution of participants in the Bilateral fund at the Programme LV06 has been: 73% in Riga region, 12% in Kurzeme, 6% in Vidzeme, 3% in Latgale and 5% in Zemgale region and 1% in unidentified (natural persons).

2. Figure. Programme LV06 participants' distribution across regions of Latvia per financial support volume. Source: LIDA, Lursoft, PwC analysis



1.2 The statistical information is segmented according to the business sector (in accordance with the economic activity in the statistical classification in the 2nd edition of the European Community (NACE))

In the SGS and Open call on "Support for Introduction of Green Technologies in Production" NACE codes are applied according to the classification of activities specified by the entrepreneurs, which was available to LIDA. Pre-incubation and incubation and Bilateral fund participants' information is sourced from *Lursoft*.

2. table (division of Programme LV06 enterprises by NACE code. Source: LIDA, Lursoft. PwC analysis) indicates the division of enterprises according to the NACE code, indicating that the majority of the participants operate in the following areas:

1. Other research and experimental development in natural sciences and engineering;

2. Business consultancy and management;

3. Engineering activities and related technical consultancy;

4. Computer programming.

2. table (division of Programme LV06 enterprises by NACE code. Source: LIDA, Lursoft. PwC analysis) shows the diversity of activities of the beneficiary companies, since the sectors of the SGS and Open Call sectors almost to not overlap at all.

2. table (division of Programme LV06 enterprises by NACE code. Source: LIDA, Lursoft. PwC analysis)

NACE code	Number of companies in Program LV06	Number of companies in Small scale grant scheme	Number of companies in Open Call	Number of companies in Pre-incubation and incubation fund	Number of companies in Bilateral fund
Other research and experimental development on natural sciences and engineering	10	1	-	5	4
Business consulting and management consultancy	9	-	-	2	7
Engineering activities and related technical consultancy	8	2	-	5	1
Computer programming	8	-	-	5	3
Manufacture of other organic basic chemicals	6	2	-	1	3
Other information technology and computer services	6	2	-	1	3
Research and experimental development in biotechnology	6	2	-	2	2
Manufacture of other electrical equipment	6	-	-	2	4
Data processing, maintenance and related activities	4	-	-	2	2
Manufacture of builders' carpentry and joinery	4	-	-	-	4
Manufacture of plastic packaging	3	1	-	1	1
Manufacture of other fabricated metal products	3	1	-	2	-
Manufacture of other products	3	-	-	3	-
Manufacture of bicycles and wheelchairs	3	-	-	2	1
Manufacture of computers and peripheral equipment	3	-	-	2	1
Manufacture of aircraft, spacecraft and related machinery	3	-	-	1	2
Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	3	-	3	-	-
Manufacture of other plastic products	2	1	1	-	-
Manufacture of instruments and appliances for measuring, testing, testing and navigation	2	1	-	-	1
Construction of residential and non-residential buildings	2	1	-	-	1
Manufacture of paints, varnishes and similar coatings, printing ink and mastics	2	1	-	1	-
Manufacture of other chemical products	2	1	-	1	-
Manufacture of other transport equipment	2	1	-	1	-
Wholesale of wood, construction materials and sanitary equipment	2	-	-	1	1
Wholesale of other machinery and equipment	2	-	-	1	1
Accounting, bookkeeping and auditing activities	2	-	-	2	-
Manufacture of games and toys	2	-	-	1	1
Other professional, scientific and technical services	2	-	-	1	1
Retail via mail or Internet shops	2	-	-	1	1
Consultancy on computer related issues	2	-	-	-	2
Waste treatment and disposal	2	-	-	-	2

Manufacture of other universal-purpose machinery	2	-	-	-	2
Electricity supply	2	-	-	-	2
Manufacture of other rubber products	2	-	-	-	2
Other telecommunication services	1	1	-	-	-
Other research and experimental development on natural sciences and engineering	1	1	-	-	-
Manufacture of livestock feed	1	1	-	-	-
Manufacture of lighting equipment	1	1	-	-	-
Manufacture of electric motors, generators and transformers	1	-	-	1	-
Automotive manufacturing	1	-	-	1	-
Manufacture of fertilizers and nitrogen compounds	1	-	-	1	-
Manufacture of other inorganic basic chemicals	1	-	-	1	-
Other telecommunications services	1	-	-	1	-
Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	1	-	-	1	-
Manufacture of knitted socks	1	-	-	1	-
Other specialized construction activities	1	-	-	1	-
Other retail outlets, stalls and markets	1	-	-	1	-
Manufacture of musical instruments	1	-	-	1	-
Agents specialized in the sale of other particular products	1	-	-	1	-
Manufacture of consumer electronics	1	-	-	1	-
Manufacture of grain mill products	1	-	-	1	-
Manufacture of sports goods	1	-	-	1	-
Specialized medical practice	1	-	-	1	-
Manufacture of other furniture	1	-	-	1	-
Artistic creativity	1	-	-	1	-
Advertising agencies activities	1	-	-	1	-
Management of computer equipment related activity	1	-	-	1	-
Glass fiber production	1	-	1	-	-
Manufacture of plastic packaging	1	-	1	-	-
Manufacture of lighting equipment	1	-	1	-	-
Manufacture of other non-metallic mineral products	1	-	1	-	-
Waste treatment and disposal (except hazardous waste)	1	-	1	-	-
Repair of metal constructions and their components	1	-	1	-	-
Road and motorway construction	1	-	1	-	-
Washing and (chemical) cleaning of textiles and fur	1	-	1	-	-
Manufacture of plastic building elements	1	-	1	-	-
Non-specialized wholesale trade	1	-	-	-	1

Other engineering systems	1	-	-	-	1
Manufacture of paper and paperboard	1	-	-	-	1
Recycling of sorted materials	1	-	-	-	1
Sanitation and other waste management services	1	-	-	-	1
Wholesale of mining, construction and civil engineering machinery	1	-	-	-	1
Manufacture of other products of wood	1	-	-	-	1
Wholesale of electronic and telecommunications equipment and parts	1	-	-	-	1
Electricity production	1	-	-	-	1
Corrugated paper and paperboard production	1	-	-	-	1
Transitional wood products	1	-	-	-	1
Other specialized construction work not elsewhere classified	1	-	-	-	1
Car maintenance and repair	1	-	-	-	1
Manufacture of paints, varnishes and similar coatings, printing ink	1	-	-	-	1
Textile weaving	1	-	-	-	1
Installation of wiring	1	-	-	-	1
Public Relations and Communication Management Services	1	-	-	-	1
Manufacture of pharmaceutical preparations	1	-	-	-	1
Manufacture of electric domestic appliances	1	-	-	-	1
Garbage collection	1	-	-	-	1
Plumbing, heating and air conditioning installation	1	-	-	-	1
Freight transport by road	1	-	-	-	1
Aluminum production	1	-	-	-	1

1.3 The statistical information is segmented according to the status of businesses: small, medium, large merchant (by the number of persons employed, turnover and assets)

PwC received information about the enterprises that were supported by the Programme LV06 from LIDA, the economic activity indicators of enterprises from the *Lursoft* database and determined the status of enterprises in accordance with the LIDA practice, taking into account the number of persons employed by the merchant, turnover and volume of assets.

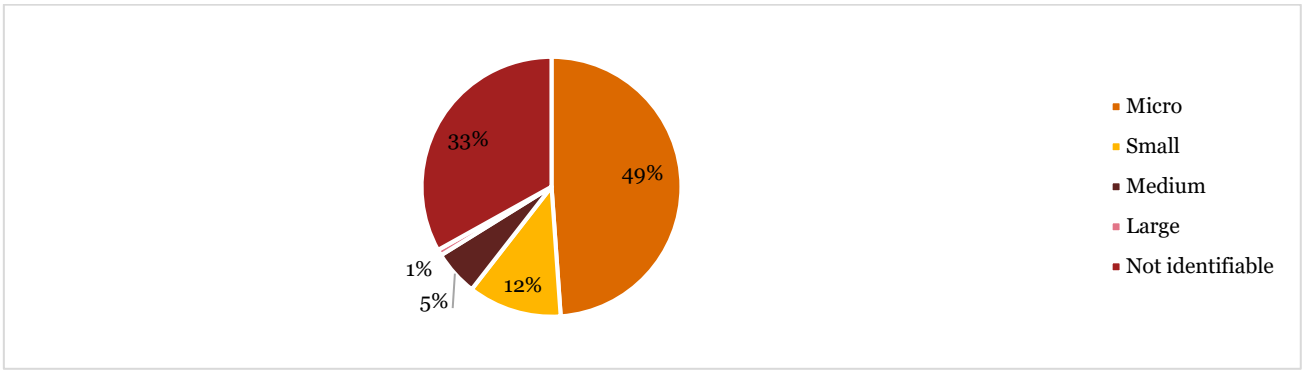
Business categorisation by status

Within the Programme LV06, the lion share (49%) of participants is micro enterprises, the second highest share (33%) are private persons, 12% are small, 5% are medium and 1% are large enterprises (*3. Figure. Business categorisation by status. Source: Lursoft. PwC Analysis*.). The situation differs slightly each part of the programme (see Annex 1, section *1.3.*):

- In Small scale grant scheme 81% were micro, 14% small and 5% mid-size enterprises.
- In Open Call there is observed an even distribution of the number of participants by company status: 39% were medium enterprises, 31% small, 15% micro and 15% are large enterprises.
- In the Pre-incubation and incubation fund the distribution is: 57% natural persons, 38% micro, 4% small and 1% medium enterprises.

- In the Bilateral fund the distribution of participants was following: 57% micro enterprises, 30% small, 11% medium enterprises and 2% private persons.

3. Figure. Business categorisation by status. Source: Lursoft. PwC Analysis.

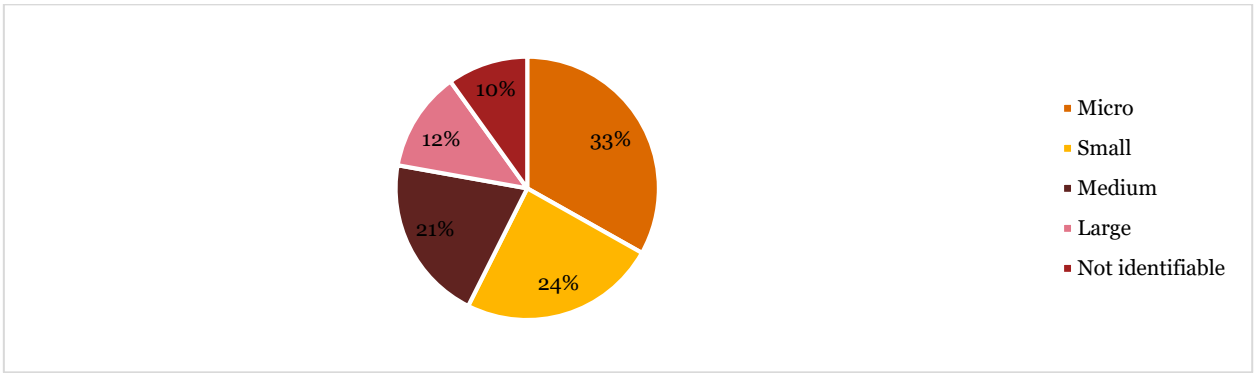


Status of businesses by financing volume

In accordance with distribution of the allocated financing, there is observed an even distribution among the groups of businesses. The majority of the Programme LV06 participants (33%) are micro-enterprises, the second highest share (24%) is small enterprises, 21% are medium-sized enterprises, 12% are large enterprises and 10% are private persons (*4. Figure. Breakdown of public funding allocated to program LV06 by business status. Source: LIDA, Lursoft. PwC analysis.*). The situation differs slightly in each part of the program (see Annex 1, section *1.3.*):

- In Small scale grant scheme, 79% of the participants were micro, 14% small and 7% medium-sized enterprises.
- In Open Call, there is still a fairly even distribution of the number of participants by company status: 31% were medium enterprises, 34% small, 14% micro and 21% are large enterprises.
- In the Pre-incubation and incubation fund, the distribution of businesses is: 57% private persons, 38% micro, 4% small and 1% medium enterprises.
- In the Bilateral fund the distribution of participants was: 68% micro enterprises, 24% small, 7% medium enterprises and 1% private persons.

4. Figure. Breakdown of public funding allocated to program LV06 by business status. Source: LIDA, Lursoft. PwC analysis.



Activity 2: Programme LV06 impact evaluation

Programme LV06 impact evaluation in the year when the programme has been finalised, is premature, since its impact does not reflect on the participants' annual reports. According to turnover and capacity, in the activities of major businesses, support accounts for a small proportion of their turnover, therefore the fiscal impact is statistically insignificant

PwC carried out an impact evaluation on parts of the Programme LV06, analysing the impact of the Norwegian Financial Mechanism's support on the following aspects of the activities of businesses: turnover, number of employees, profit, productivity, volume of paid taxes, broken down by type of tax. This section quantified the impact of Programme LV06 on the characteristics of the key business activities of green businesses as well as other variables whose numerical changes can serve as an empirical evidence of the achievement of the Programme LV06 objectives.

In the Programme LV06, the most significant impact on the company's performance indicators is observed for enterprises that have created a new product or service, purchased new technology or introduced a new process, i.e., the Small Scale Grant Scheme and the Open Call.

In PwC view, it is necessary to segment the companies by the amount of financial support intervention – i.e., the received funding portion of the annual turnover, in order to show more visibly the impact of the project on the company's financial performance. As a result of this segmentation, there are three groups in the Small Grant Scheme:

1) Group with an intervention proportion "under 10%" or businesses which received financing portion was under 10% or annual turnover in the year, when the financing was obtained (*88.Figure The public funding received from participants in a SGS against the turnover of funding received which is between10% and 500% of this intervention. Source: Lursoft, PwC analysis*): SIA *Anzāģe*, SIA *Linum Color*, SIA *Vizulo*.

2) Group with an intervention proportion "between 10% and 500%" or the businesses with received financing was between 10% and 500% of the annual turnover in the year, when the financing was obtained (*87. Figure. Actual received public funding and a surplus from the LV06 originally granted to participants in a small scale grant scheme. Source: LIIA. PwC analysis.)* SIA *Citintelly*, SIA *Greeneu*, SIA *Filkir*, SIA *EPM Rīga*, SIA *4.bee*, SIA *AV Recycling*, SIA *InCell*, SIA *PlayGineering Systems*, SIA *AFFOC Solutions*, SIA *MHD Research Centre*, SIA *Baltic3d.EU*, SIA *Nipon*, SIA *Conak Steel*, SIA *Thermeko*.

3) Group with an intervention proportion "above 500%" or the businesses with received public financing above 500% of the turnover in the year, when the financing was received (*88. Figure. Public funding received by participants in a SGS against the annual turnover of the funding received, for which the share of this intervention is below 10%. Source: Lursoft, PwC analysis.*): SIA *PolyLabs*, SIA *Biokompozītmateriālu institūts*, SIA *Greeneu*.

Participants of the Open Call are divided into two groups.

1) Group with an intervention proportion "under 100%" or entrepreneurs, who's public financing was below 100% of the turnover in the year, when the financing was obtained (*89. Figure. The public funding received from participants in a small scale grant scheme against the turnover of funding received, which is between 10% and 500% of this intervention. Source: Lursoft, PwC analysis.*): SIA *Ceļu būvniecības sabiedrība Igate*, SIA *Vizulo*, SIA *EKJU*, SIA *Baltic3D.EU*, AS *Valmieras stikla šķiedra*, SIA *Binders*, SIA *Graanul Invest*, SIA *ZAAO*, SIA *RK Metāls*, SIA *VRV*, SIA *Polipaks NT*.

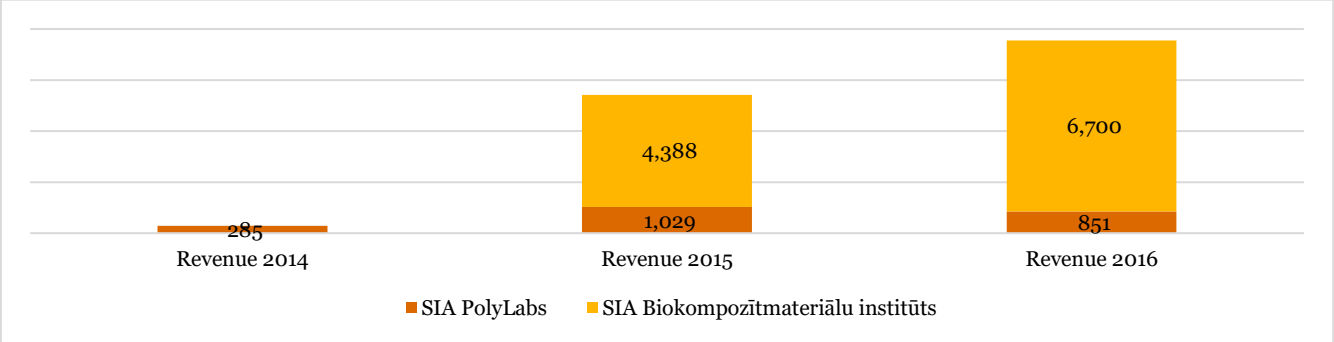
2) Group with an intervention proportion "above 100%" or entrepreneurs, who's public financing was above 100% from the turnover in the year, when the financing was obtained (*90. Figure. Funds received from participants in a SGS against the annual turnover of the funding receiving more than 500% of the funding. Source: Lursoft, PwC analysis*): AS *Wasserkabel Baltic,* SIA *Pellet 4Energia*.

2.1. Impact on Annual Turnover of Enterprises

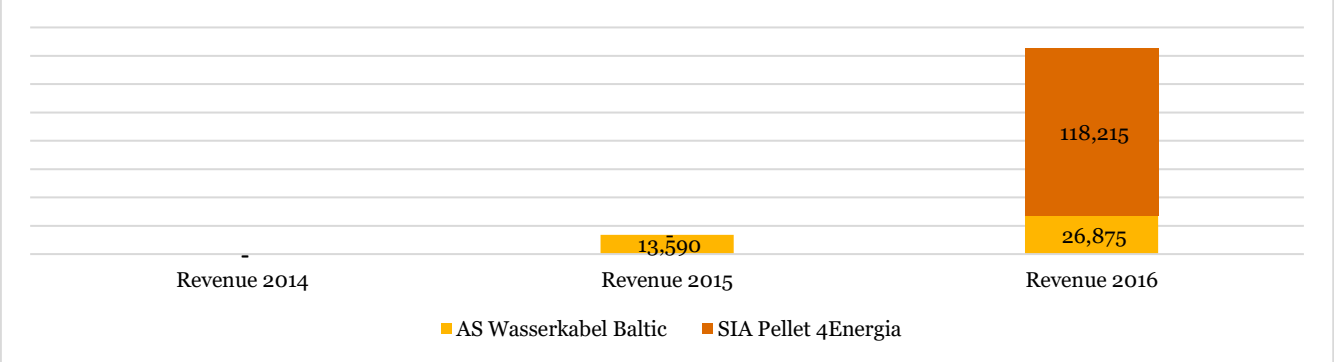
Cumulative Programme LV06 sales of project beneficiaries indicate an increase in profit in 2015 and a decline in 2016. This reflects the impact of the national economy on economic operators, including the weak development in 2016, where the main factors were both the lower private investments and the absorption of EU funds, which was mentioned as the main obstacle for growth[8].

Segmenting sales by the above-mentioned groups according to the proportion of received support on the current annual sales of the economic operator - intervention proportion, SGS companies with an intervention proportion above 500% indicated a different trend, pointing to the increasing sales for the project beneficiaries being in this group (*5. Figure. SGS companies with an influencing factor above 500%, sales. Source: PwC interviews and analysis*.). Similarly, the Open call "Support for the Introduction of Green Technologies in Production" companies with an intervention proportion above 100% showed a different trend, also presenting upward sales (*6. Figure. Open call "Support for the Introduction of Green Technologies in Production" companies with an influencing factor above 100%, sales. Source: PwC interviews and analysis.*). Thus, we believe that the impact of funding on the economic activity of newly created companies has been positive.

5. Figure. SGS companies with an influencing factor above 500%, sales. Source: PwC interviews and analysis.



6. Figure. Open call "Support for the Introduction of Green Technologies in Production" companies with an influencing factor above 100%, sales. Source: PwC interviews and analysis.



Cumulative sales of the participants of the previously determined project (including the pre-incubation and incubation fund) also indicate an increase in 2015 and a decline in 2016. By contrast, cumulative sales of the Bilateral fund indicate a decline in 2015 and growth in 2016.

Our opinion is that, in considering the specifics of the programme in the previously determined programme and Bilateral fund, the project period was short and could not have a significant impact on the participants of this programme.

[8] Bank of Latvia (2017): *Press conference of the President of Bank of Latvia*. Available: https://www.bank.lv/component/content/article/491-presei/preses-konferences/10949-pk-08092017?Itemid=201

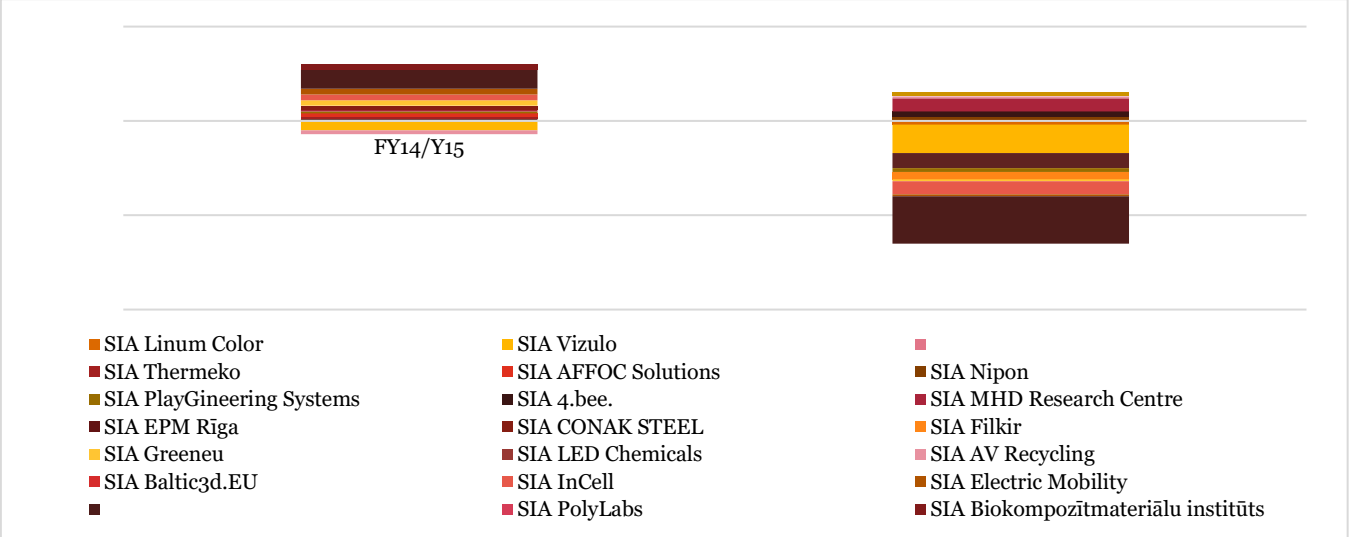
2.2 Impact on the number of employees of project beneficiaries according to the annual report data of the companies

Mostly the SGS indicates a negative impact on the number of employees provided in the annual reports of the company. For 9 project beneficiaries the number of employees has increased and for 7 project beneficiaries it has declined, with a common change: -12 work places from 2014 to 2016.

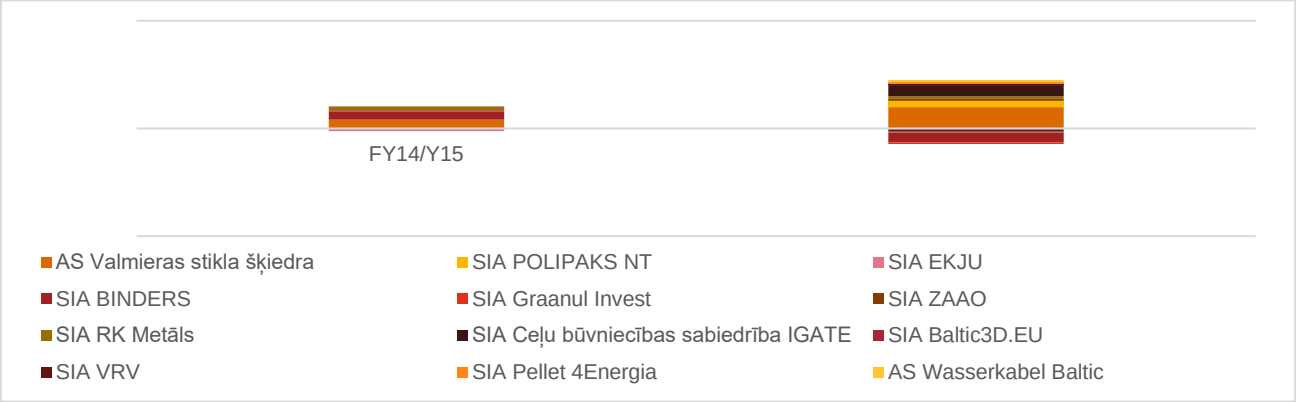
In the Open call "Support for the Introduction of Green Technologies in Production" between 2014 and 2016, the number of employees for 8 project beneficiaries increased and for 5 declined with the common change: increase by 244 employees.

Analysing the data, a very weak correlation was observed between the allocated funding and staff changes. For the SGS it is negative (-0.2) and for the Open call "Support for the Introduction of Green Technologies in Production" it is positive (0.1).

7. figure. Changes in the number of employees for the SGS project beneficiaries from 2014 to 2016. Source: PwC interviews and analysis.



8. Figure. Open call changes in the number of employees from 2014 to 2016. Source: PwC interviews and analysis

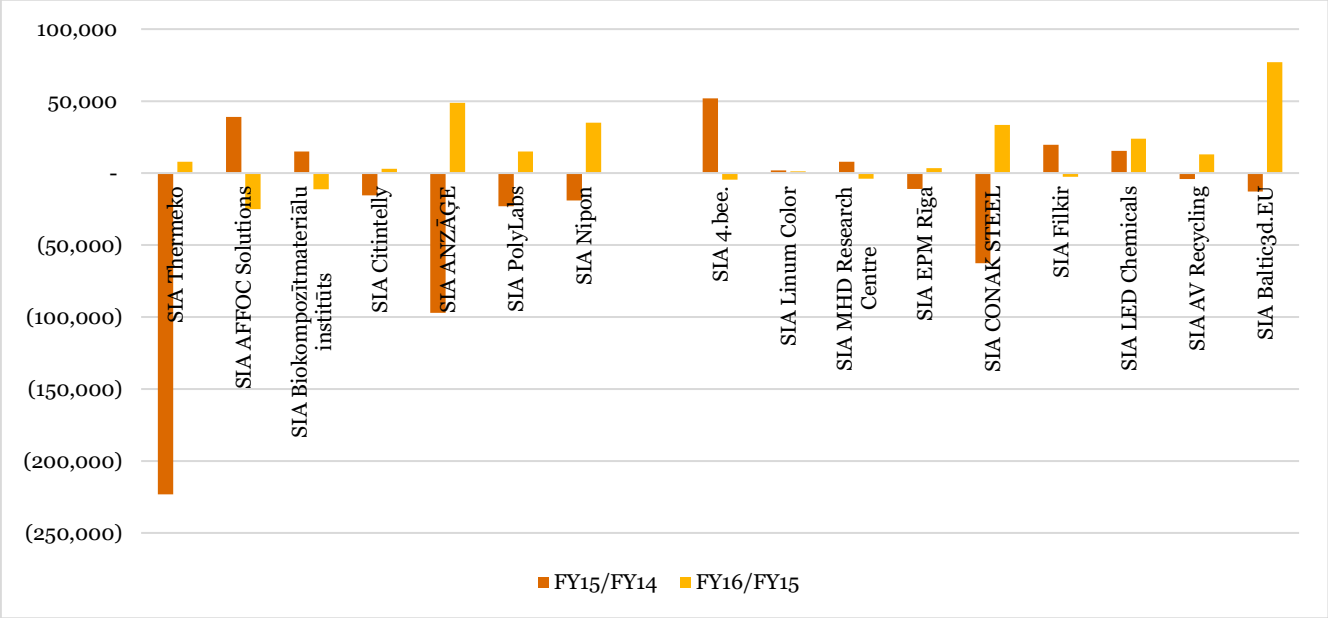


From 2014 to 2016 the total number of employees for the participants of the previously determined project (including the pre-incubation and incubation fund) increased by 87. Cumulative number of employees for the participants of the Bilateral fund increased by 181 employees during the same period. Given the short period of the programme, and when the indicated part of the programme was implemented, we consider that Programme LV06 did not impact this number of employees of the participants.

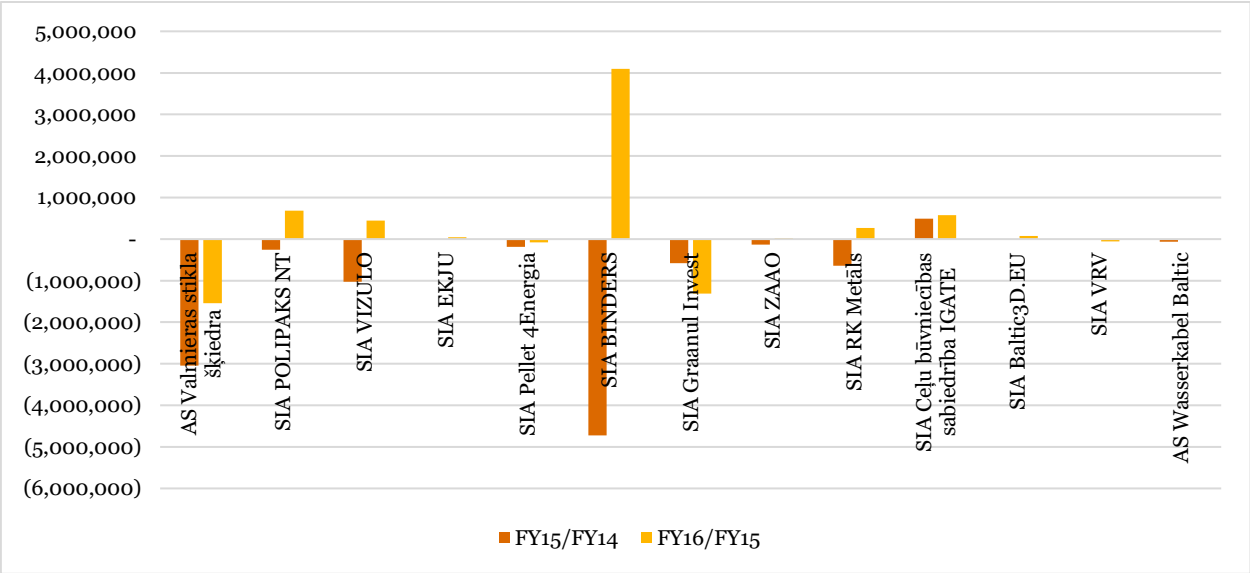
2.3 Impact on the profit of project beneficiaries

Profit analysis of the project beneficiaries did not indicate a correlation between the receipt of support of Programme LV06 for the participants during the period from 2014 to 2016. PwC view this data analysis as premature and we must consider the impact on the changes of the programme participants profit at least one year after the end of the programme.

9. Figure. Changes of profit for SGS participants in 2014/2015 and 2015/2016. Source: Lursoft.



10. Figure. Changes in the profit for Open participants in 2014/2015 and 2015/2016. Source: Lursoft.



2.4 Impact on the productivity of project beneficiaries

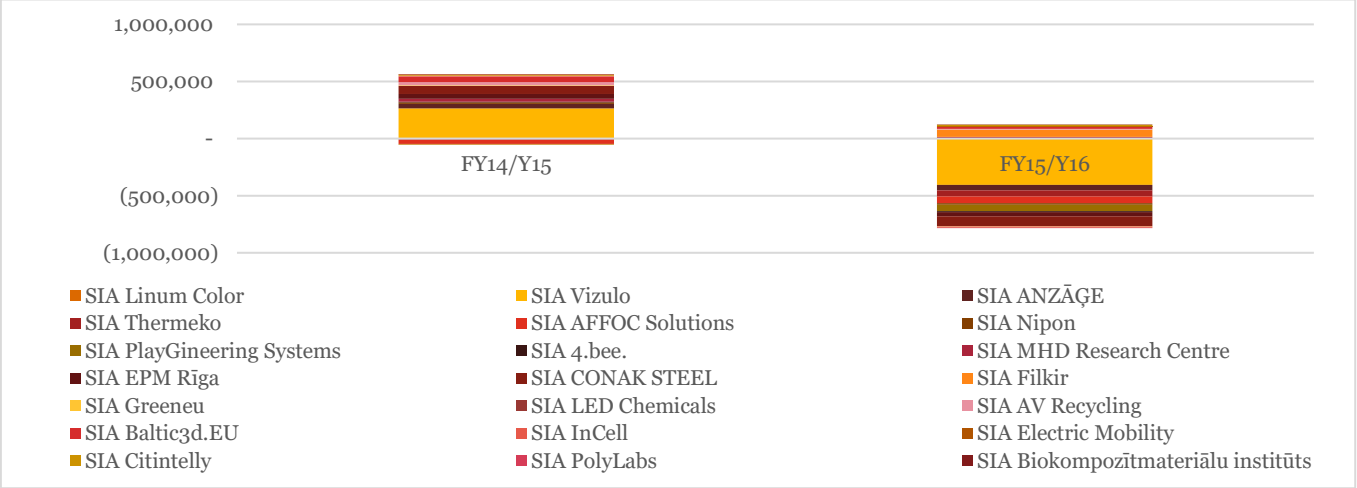
With the economic operators' economic activity data that are in the possession of PwC, it is not possible to evaluate the productivity of the total factors reached by the economic operators, therefore we analysed the productivity of the work force and assets of the project beneficiaries who received support from Programme

LV06, assessing the relation of the sales of project beneficiaries with the number of employees indicated in the annual report[9], assets and changes of these indicators on an annual basis.

Productivity of the SGS work force mainly increased from 2014 to 2015, but declined from 2015 to 2016. Segmenting of results by groups after the proportion of intervention did not provide other results. Our analysis showed a weak but positive correlation (0.5) between the allocated funding support and productivity indicator: profit in relation to the number of employees.

Productivity indicators of the assets - comparing the sales with assets, did not show a clear trend. Productivity of the three participants of Programme LV06 improved from 2014 to 2015, and from 2015 to 2016 and the productivity of four project beneficiaries declined in both cases; for four players it increased from 2014 to 2015, but fell from 2015 to 2016. And for three members productivity dropped from 2014 to 2015, but increased from 2015 to 2016. The analysis showed a very weak but positive correlation between the productivity indicators (sales in comparison to assets) and allocated funding (0.3).

11. Figure. Productivity of SGS participants: sales per 1 employee. Source: Lursoft.

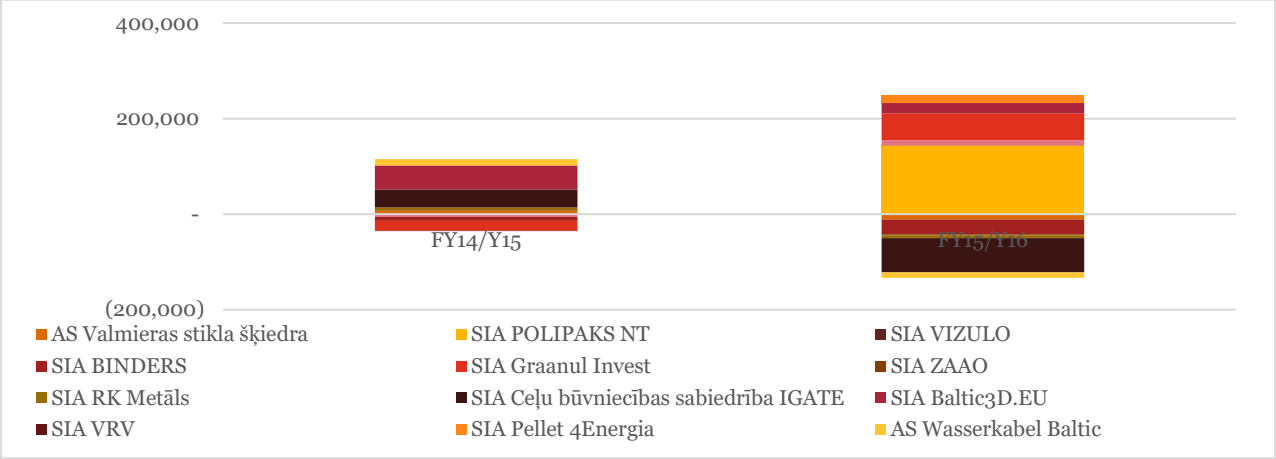


Productivity of Open call "Support for the Introduction of Green Technologies in Production" participants mainly increased both from 2014 to 2015 and from 2015 to 2016. Here, too, the segmenting of results by groups according to the intervention impact did not provide other results. PwC analysis showed an even weaker, but still positive correlation (0.2) between the allocated funding support and productivity indicators: sales in relation to the number of employees.

Also here indicators of the productivity of assets - relating sales to assets did not show a clear trend. For two members of the Programme LV06 productivity improved from 2014 to 2015 and from 2015 to 2016, for five members it increased from 2014 to 2015, but declined from 2015 to 2016. And for five members productivity dropped from 2014 to 2015, but increased from 2015 to 2016. The analysis showed a very weak but positive correlation between the productivity indicators (sales in comparison to assets) and allocated funding (0.3).

[9] The method was chosen in compliance with the Measuring Productivity. OECD Manual. Available: https://www.oecd.org/std/productivity-stats/2352458.pdf

12. Figure. Productivity of participants of Open call: sales per 1 employee. Source: Lursoft.



2.5 Impact on the amount of paid taxes

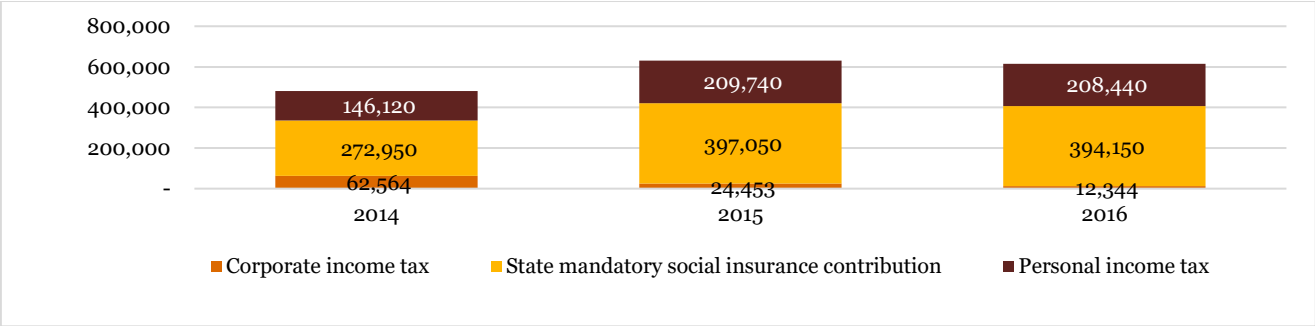
Companies for which the financial support of Programme LV06 have significantly exceeded the sales in the year when the funding was received - indicate a positive impact on tax payments. Total paid taxes of the SGS participants have increased from 2014 to 2015 and decreased slightly from 2015 to 2016. Amount of taxes paid by the SGS participants with Programme LV06 funding support that did not exceed 10% of the annual sales of the year when the funding was allocated, increased in 2015 and decreased in 2016. We can conclude for this group that funding of the programme did not substantially impact tax payments in this group. For project beneficiaries with financial support between 10% and 500% from the annual sales of the year when the funding was allocated, we can observe an upward trend in tax payments. For project beneficiaries having funding support exceeding 500% of the sales, we observed a rapid upward trend. This point to the fact that the increase in sales (due to the result of Programme LV06) will also increase tax payments.

In the taxes paid by the participants of the Open call "Support for the Introduction of Green Technologies in Production" we can definitely observe an upward trend. Besides, it is faster for those companies for which the funding support of the Programme LV06 significantly exceeded the annual sales when the funding was received.

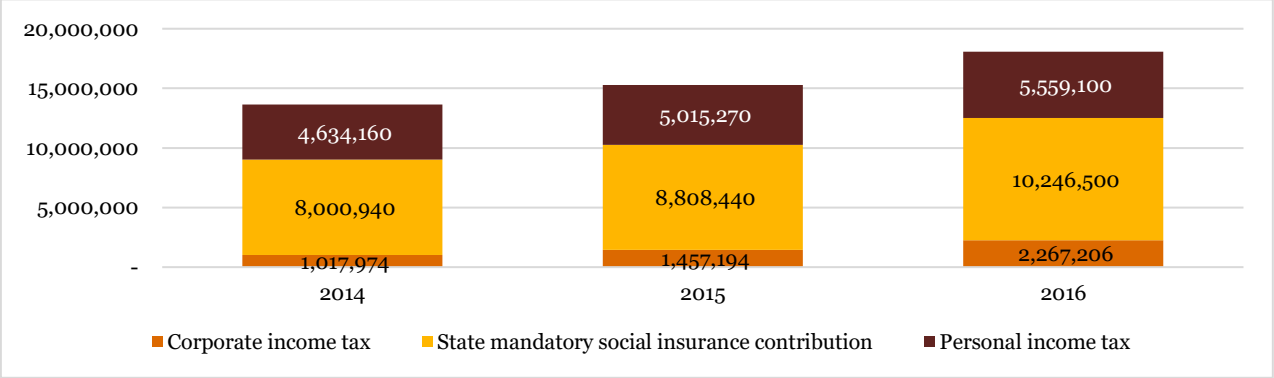
Despite the irregular trend in the sales and profit indicators, an upward trend of the taxes between 2014 and 2016 can be explained by: 1) Entering into force of the Law on Solidarity Tax as of 1 January, 2016[10] (that increased state social insurance mandatory tax contributions); and 2) a significant increase in employees' salaries between 2014 and 2016[11].

[10] Law on Solidarity Tax. Available: https://likumi.lv/ta/id/278636-solidaritates-nodokla-likums.
[11] International Monetary Fund (2017): *IMF country report: Republic of Latvia*. Available: https://doc-08-3c-apps-viewer.googleusercontent.com/viewer/secure/pdf/1hr65vfa7vm4m25d9hpaekphkhib3iq0/6fj58ekrp1h4023niv9f34qoidgmq046/1508067000000/gmail/14940595780624158502/ACFrOgCVb0Sz7TBUd45kmbFjtqKPmjVhXkHdfDyMbQkTd5HL7MJ1MVcpLF7RrsokwzjkD9_vmyp2KK8TMW_GTGkjL6dustJq-MXDUusLMIXXl2DN6oUlIusdnkg7SGo =? print = true & nonce = qc6tol102rv6a & user = 14940595780624158502 & hash = sbshno8qu78msgc8tste2i283d48mvvm

13. Figure. Taxes paid by the SGS: sales per 1 employee. Source: Lursoft.



14. Figure. Taxes paid by the Open call "Support for the Introduction of Green Technologies in Production". Source: Lursoft.



For the participants of the previously determined project (including the pre-incubation and incubation fund) and Bilateral fund, the trend of the paid taxes is also positive between 2014 and 2016, although in our view Programme LV06 also did not have an impact on the participants of these parts of the programme.

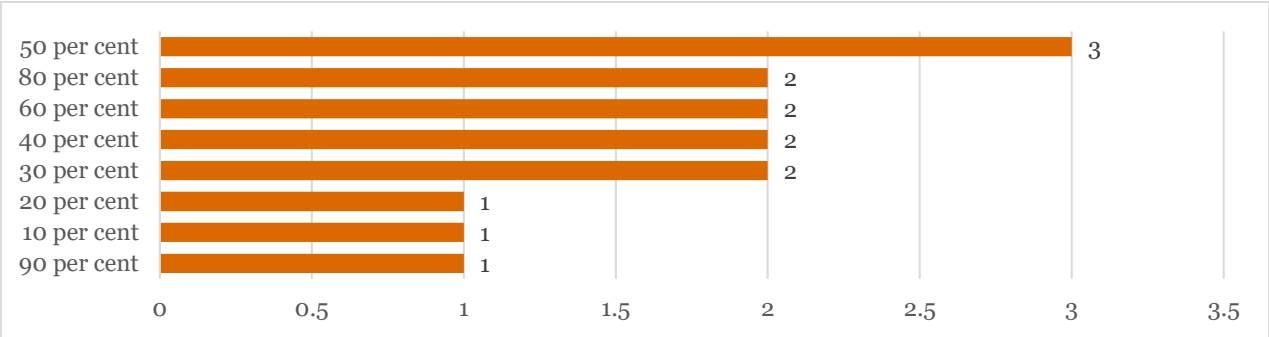
2.6 The share of income related to environmentally friendly business

Programme LV06 significantly impacted the project beneficiaries who implemented a new product, service, technology or process in the course of the project; we can observe this from the fact of how a big part of the companies' sales was affected

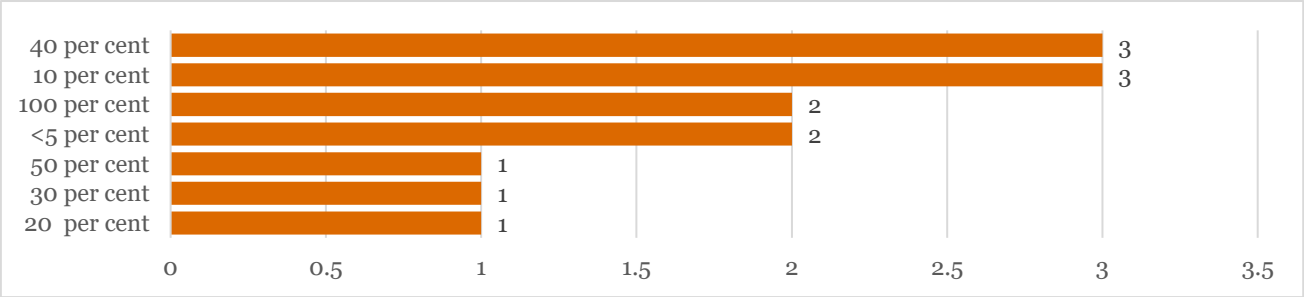
Between the SGS participants we can observe a significant impact of the funding support on their activities. The majority of the surveyed project beneficiaries(5 of 18) indicated that the results of the project currently have no impact on their sales, as the outcome of the project is the developed prototype. In this case, it is only expected to affect the sales when the serial manufacturing of products is started. For other project beneficiaries who have received support, the amount of products and services sold due to the result of the programme ranges from 10% to 90%.

There were no project beneficiaries amongst the participants of the Open call "Support for the Introduction of Green Technologies in Production" with the sales that are not affected by the Programme LV06 outcome innovation (purchase of technology or process improvement). Part of the sales of project beneficiaries related to the environmentally friendly business (due to the use of technology or process improvement) is from <5% to 100%.

15. Figure. Sales amount of the new product created as a result of Programme LV06 from sales in the Small-scale grants scheme part. Source: PwC interviews.



16. Figure. Impact of the new technology implemented due to the result of Programme LV06 on the sales of "Support for the Introduction of Green Technologies in Production" programme part. Source: PwC interviews.



Activity 3: Qualitative analysis of Programme LV06 performance

The received support increased the competitiveness of project beneficiaries and financial sustainability, increased exports, and positively impacted the national economy to a certain extent. Respondents admit that it has given them an opportunity to implement environmentally friendly innovations or contributed to their rapid development

This section provides a deeper understanding into how the obtained funding has helped project beneficiaries to improve their competitiveness and ability to innovate or otherwise has promoted environmentally friendly innovation, answering the questions:

1) The way in which the support has impacted the involvement of project beneficiaries in the innovation activities and innovation capacity, number of newly created jobs, developed innovative products, services or processes, how the cooperation networks and market of project beneficiaries have changed;

2) the way in which the support has affected the cooperation of project beneficiaries with research institutions and other new products and technologies' support structures and partners;

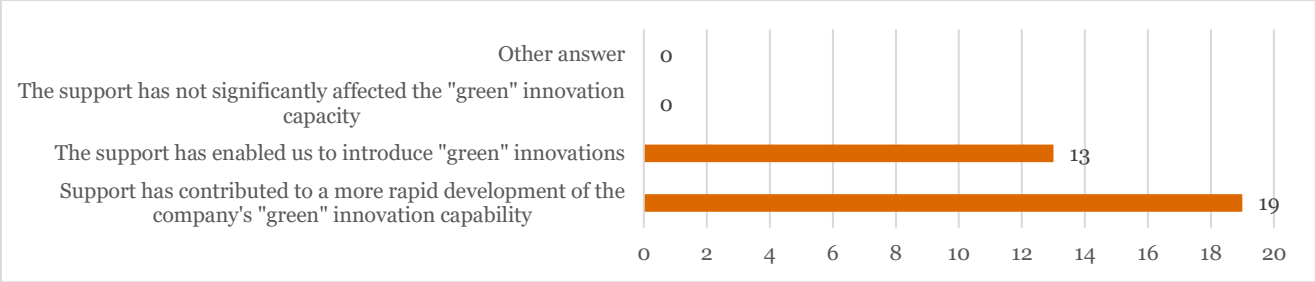
3) the form in which the support has affected the administrative and financial sustainability of economic operators.

3.1. Impact of the support on the economic operators' involvement in innovation activities and innovation capacity

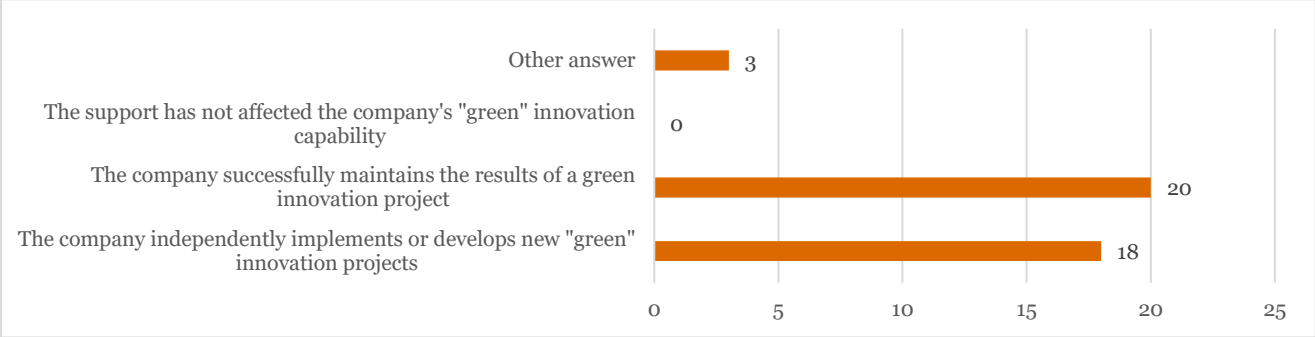
The received support has allowed one to implement environmentally friendly innovations or has contributed to the rapid development of innovations

Programme LV06 promotes the involvement of project beneficiaries in environmentally friendly innovation activities, giving a chance to implement them, promoting business development and enhancing competitiveness. Answers of the project beneficiaries show that from the 32 responses of the participants of the SGS and Open call "Support for the Introduction of Green Technologies in Production", for 13 participants the support has provided a possibility to implement environmentally friendly innovations and for 19 participants the support has promoted more rapid development of the environmentally friendly innovation capacities of the company (*17. Figure. Impact of the received support on the involvement of project beneficiaries in the innovation activities (number of the responses received). Source: PwC interviews.*). As a result companies successfully maintain environmentally friendly innovation project results (20 responses) and independently implement or develop new environmentally friendly innovation projects (18 responses). Amongst other things, one economic operator considers that there is also an opportunity to develop the established service further and two project beneficiaries have created a prototype that will be developed further (*18. Figure. Impact of the support on the involvement of the participants of Programme LV06 in the innovation activities* and innovation capacity (number of responses received). Source: PwC interviews. This indicates the significant impact of the financial support on the innovation capabilities of the participants of Programme LV06.

17. Figure. Impact of the received support on the involvement of project beneficiaries in the innovation activities (number of the responses received). Source: PwC interviews.



18. Figure. Impact of the support on the involvement of the participants of Programme LV06 in the innovation activities and innovation capacity (number of responses received). Source: PwC interviews



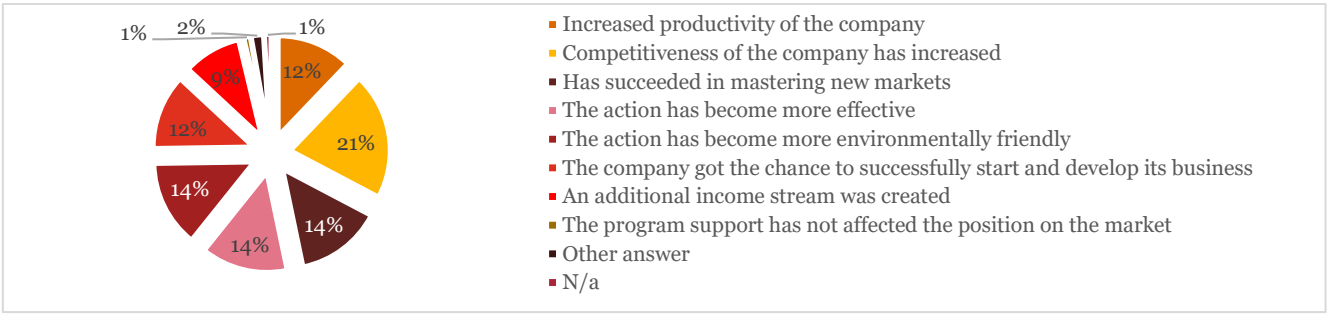
Interviews suggest that Programme LV06 significantly improved the competitiveness of the project beneficiaries as it helped to implement new products and/or services, improved processes, expanded cooperation networks of the project beneficiaries and increased export; this is explained more in detail in Paragraph 2 of this Section.

3.2 Impact of the support on the development of innovative products, services or processes

The received support increased the competitiveness of economic operators, expanding the customer base.

Interviews conducted by PwC and analysis of the financial data of the newly-supported firms show that Programme LV06 positively impacted project beneficiaries who participated in it (*19. Figure. Impact of the support on the operations of the participants of Programme LV06 (proportion of responses received). Source: PwC interviews*)). From all the respondents, competitiveness increased for the majority (21%), 14% of project beneficiaries managed to enter new markets, 14% now operate more efficiently and another 14% now operate using a greener approach. In 12% of cases the company had the opportunity to start and further enhance its operations, and in addition, productivity increased for 12% of economic operators. 9% of project beneficiaries had the opportunity to start new operations. 2% of project beneficiaries gave a different answer, 1% indicated that the impact is not applicable, and 1% said that it did not impact their position in the market - the reason for all 4% of cases where the prototype developed due to the result of the Programme, which has not given an immediate impact on the company's operations, but only rather tested the potential of the business idea in the market.

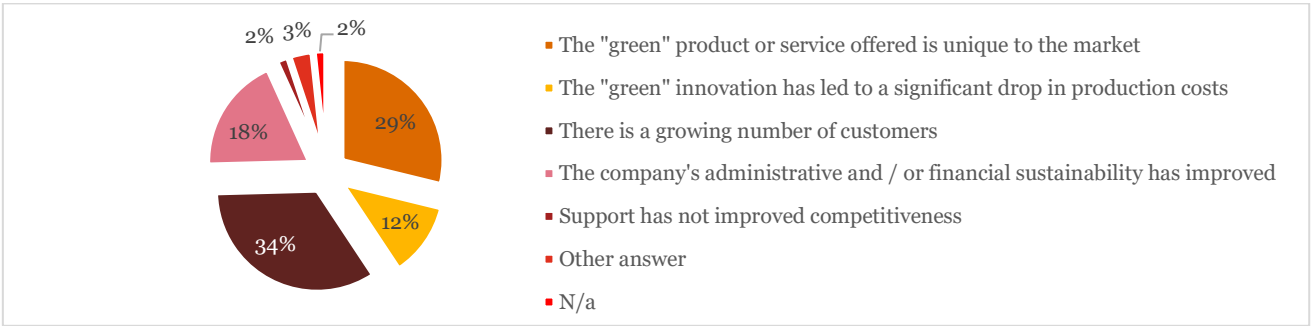
19. Figure. Impact of the support on the operations of the participants of Programme LV06 (proportion of responses received). Source: PwC interviews



Out of 32 economic operators, participants of the SGS and Open call "Support for the Introduction of Green Technologies in Production" the customer base increased for the majority of them (34%) and (29%) offered a unique product or service in the market that clearly indicates improved competitiveness. For 18% of project beneficiaries administrative and / or financial sustainability has improved. 3% of project beneficiaries gave a different answer, one of them indicated that the received support has provided possibilities for the safe long-term manufacturing planning of the specific and highly demanded product in the market and one economic operator indicated that manufacturing costs have decreased minimally. One economic operator indicated that the issue is not applicable as it has a ready prototype that still can't be launched into production and does not affect the competitiveness of the company so far. 2% noted that competitiveness was not affected.

Similar evaluation of the situation was also given by all 64 respondents who answered the questions of the PwC survey - about a third (28%) indicated that their product was unique, slightly less - 25% stated that they were able to expand their customer base. At the same time 11% of respondents said that the support has not improved their competitiveness.

20. Figure. Impact of the support on the competitiveness of the participants of Programme LV06 (proportion of the responses received). Source: PwC interviews.



Evaluation of the impact of Open call "Support for the Introduction of Green Technologies in Production"

- SIA *VRV* (laundry and dry cleaners) purchased equipment (in 2015) that allowed it to significantly improve work efficiency: the company can process larger amounts with fewer resources in the shortest time possible, including the consumption of electricity and human resources (for example, three people can do the work of four people while servicing equipment). The results are: better quality of service and shorter periods of service with the ability to handle larger order volumes, improving the company's financial sustainability.
- SIA *EKJU* implemented the new dyeing method after the purchase of equipment (in 2015), thus improving customer demand and increasing the customer base.
- SIA *Baltic3d.EU,* only thanks to the financial support, purchased equipment, which allowed the economic operator to become the first industrial 3D printing centre in the Baltics[12], and improve the work efficiency in the beginning of 2016 (by reducing the necessary human resources from

[12] NRA (2016): *The first industrial 3D printing centre in the Baltics has started working* Available at: http://nra.lv/latvija/162325-darbu-sacis-baltija-pirmais-industrialas-3d-printesanas-centrs.htm

three to one) and increasing exports. In comparison with 2015 the company production in 2016 has increased by 51%, and is planned to increase by 48% in 2017 (in comparison with 2016). The total company export in 2016 has increased by 77% (in comparison with 2015), and is planned to increase by 74% in 2017 (in comparison with 2016).

- *Valmieras stikla šķiedra JSC had the possibility to invest in the production of a specific and marketable product, which is unique in the market*. It was achieved by acquiring (at the beginning of 2016) a set of equipment for industrial wastewater treatment and resource recovery[13], thus returning glass fibres as a recycled raw material in the technological manufacturing process and reducing the acquisition of purchased resources by 60%.
- The acquired equipment of *Binders* LTD (in 2015) provided the opportunity to use recycled material - milled asphalt in the manufacturing process, thus reducing the costs of manufacturing and strengthening the financial sustainability of the company.
- The acquired equipment of *RK Metāls* LTD allowed it to increase the amount of manufacturing, thus expanding the export market from an initial 8 countries (in 2014) to 26 countries (in 2017).

Evaluation of impact of support provided by SGS

- The project of *Vizulo* LTD "Design and development of LED airport runway and territory luminaires" (summer of 2016), allowed the merchant to differentiate their operations. If previously the main activity was dependant on the cycle of construction sector (purchase of luminaires) and thus experienced a lower activity period due to lower European Commission investments, now the Project has given the merchant the possibility to target a new market sector - managers of airport runways, by introducing a new product line and ensuring additional income flow, which would not be possible without participation in Programme LV06. The company increased export from 30% in 2014 to 70% of the manufactured production amount in 2016, and is planning to increase it to 90% in 2017 by entering new markets such as France, Switzerland, Finland and New Zealand, which are established and are not dependant on the money of European Union funds.
- *AV Recycling* LTD developed a unique product in the market: cold asphalt mix - development and implementation (in 2016). The innovative product ensures repair works in any weather conditions and thus provides the opportunity to target clients in countries with a cold climate. The merchant is planning to start its operations in Scandinavian countries.
- *PolyLabs* LTD who has a unique product at a global level (Biopoliols) was provided with the opportunity to increase the amount of test production to offer to potential customers. This is a market characteristic in the specific field and thus ensures the merchant the possibility to compete with the largest market players. The merchant has already had the chance to start cooperation with potential distributors in Western Europe and Japan.
- *PlayGineering Systems* LTD had the possibility to develop a unique product in the market: a new generation video analytical solution in professional sports, which has the possibility to compete in the global market. The merchant has already concluded agreements with Korea Ice Hockey Association[14] and in France for equipping 30 football fields[15]. As well as negotiations with clients in Kazakhstan, the Czech Republic, Germany and other countries are being held.

3.3 The impact of the support on the merchant cooperation network and changes in the market situation

Due to Programme LV06, for the majority of the 31 businesses interviewed, SGS and Open call "Support for the Introduction of Green Technologies in Production" participants, (84%), the cooperation networks and markets have changed: mainly, the networks of suppliers, cooperation partners and customers have expanded (for 26 out of 31 interviewed), as it is provided by the information obtained from the 31 interviews. Cooperation networks of

[13] Valmieras stikla šķiedra JSC: *The neutralisation of industrial wastewater recovery for "green" product manufacturing* Available at: https://www.valmiera-glass.com/lv/group-1/projekti/par-rupnieciska-notekudens-neitralizaciju-zalu-produktu-razosanai

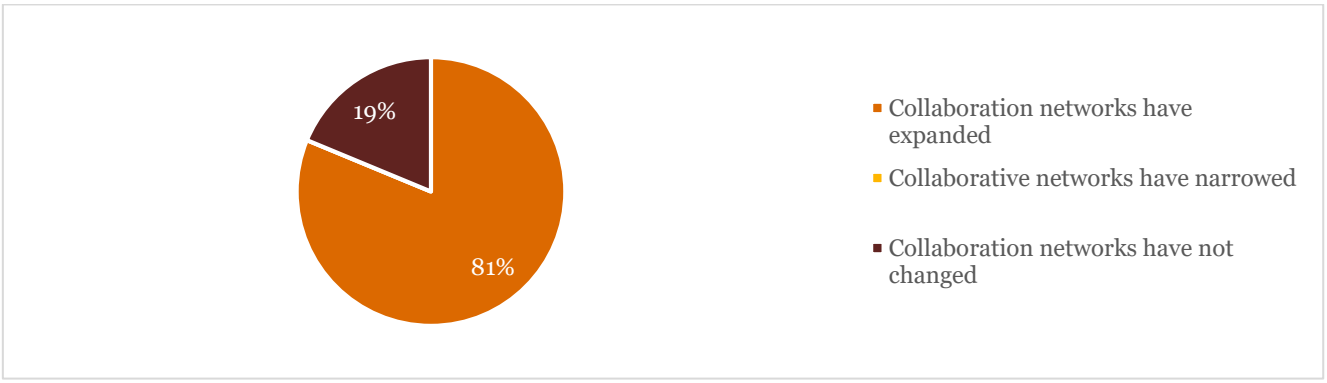
[14] Dienas Bizness (2015): *Korea is interested in the sports high-technology product from Latvia* Available at: http://www.db.lv/tehnologijas/koreja-interese-par-sporta-augsto-tehnologiju-produktu-no-latvijas-442126

[15] Labs of Latvia (2017): *PlayGineering Systems conquers an undeveloped part of the sports industry* Available at: http://www.labsoflatvia.com/lv/zinas/playgineering-systems-iekaro-sporta-industrijas-neapguto-dalu

16% of businesses have not changed, as it is presented in *21. Figure. Impact of the support on the network of cooperation of the participants of Programme LV06 (proportion of responses received from 31 respondents). Source: PwC interviews*.

Four businesses have had the opportunity to target new markets: *RK Metāls* LTD has had the possibility to export their production to the USA, *Vizulo LTD* exports their production to countries with whom the merchant did not have cooperation before the project: France, Switzerland, Finland and New Zealand; *RK Metāls* increased the number of export countries from 8 to 26 countries at present, *Polylabs LTD* has the chance to address customers in Western Europe and Japan, and *AV Recycling* LTD addresses clients in Scandinavian countries.

21. Figure. Impact of the support on the network of cooperation of the participants of Programme LV06 (proportion of responses received from 31 respondents). Source: PwC interviews.



The goal of the participants of the Open call "Support for the Introduction of Green Technologies in Production" was to increase the capacity of production, increase amounts, make the manufacturing more effective and environmentally friendly by acquiring new equipment. Therefore, this group was not focused on cooperation with scientific institutions and the creation of new products. In contrast, the main goal of the participants of the SGS was to innovate and create new goods or services. As a result, intensive cooperation with scientific institutions is observed in this sector. In the survey 9 businesses indicated that cooperation with scientific institutions has been promoted, 6 businesses developed their own scientific research capacity to innovate and additional four improved both previously mentioned indicators. For example, *PlayGineering Systems* LTD had close cooperation with Ventspils University and RTU, *LED Chemicals* LTD cooperated with two institutions of Russia, *AV Recycling* LTD cooperated with the Norwegian University of Science and Technology, *PolyLabs* LTD cooperated with the Latvian State Institute of Wood Chemistry. *VIZULO* LTD, *CONAK* LTD and *Electric Mobility* LTD increased their own scientific research capacity. Few businesses already cooperated with scientific institutions before the project. The majority of the businesses indicated that more events with the opportunity to meet both new representatives of scientific institutions, and already well known. Although some of the businesses mentioned that improvements in available events are not necessary. Few businesses indicated that it would be beneficial to make a change in the organisational model.

3.4 Impact of the support on the number of newly created jobs

According to the statement of companies that have received the support of Programme LV06 from 2014 to 2017, as a result of Programme LV06 126[16] new jobs were created (61 created within the scope of Open call "Support for the Introduction of Green Technologies in Production" and 74 within the SGS) as it is presented in figure 22.

This information is based on audits of the participants of LIDA Programme LV06, because, as it was confirmed by LIDA, jobs created within the SGS have to be maintained for at least one year after the project, whereas the jobs created within the scope of the Open call "Support for the Introduction of Green Technologies in Production" have to be maintained for at least five years after the project.

[16]Within Programme LV06 Open call "Support for the Introduction of Green Technologies in Production" 61 new jobs were created. Currently 74 jobs are indicated in the SGS, but it has to be noted that 5 projects have not been concluded yet, thus the number will change. Source: LIDA.

Data submitted by the LIDA, which is based on the audit of businesses, differs from the company annual report data published by *Lursoft*. Possible reasons for the difference are as follows:

1) Data for 2017 are not available yet at *Lursoft,*

2) The data indicated in reports are only for the jobs created within the project, but *Lursoft* data indicates the whole company and refers to other structural units where a possible reduction of personnel has been carried out.

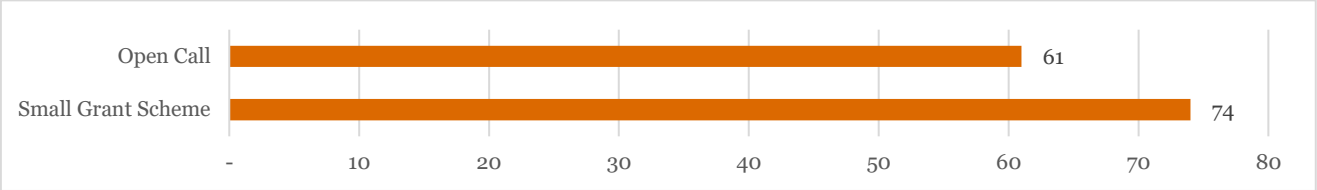
It is not possible to obtain assurance in the large or medium companies whose scope of activities significantly exceeds the grasp of granted support, whether the number of created jobs within the project fully complies with the information declared by the company.

This fact shows that the aim of support mechanisms pointing towards operation efficiency and labour force productivity may contradict the necessity to create new jobs, because the creation of new jobs may contradict the innovation of environmentally friendly manufacturing.

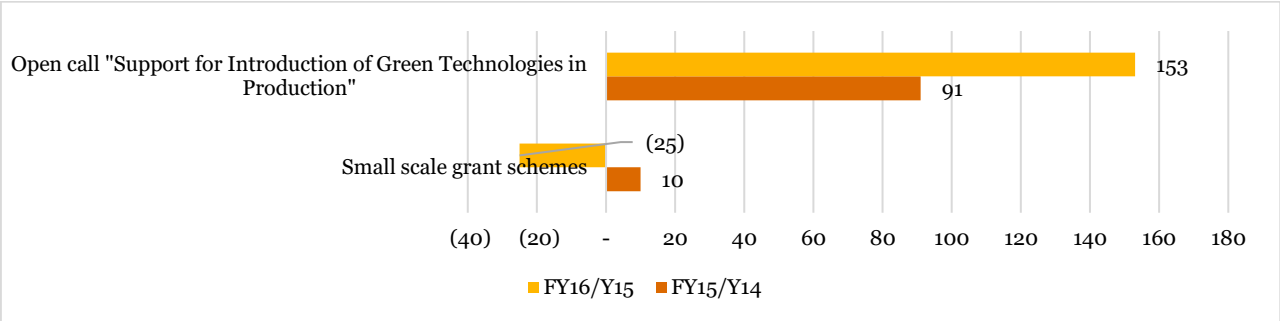
Within the scope of financial support PwC recommends to review the method for measuring the creation of new jobs, because currently only the indicators achieved within the project must be presented in the reports and it does not refer to the whole company; as a result the data in submitted reports differ from *Lursoft* data from Company Annual Reports.

126 jobs were created within the Programme from 2014-2016, although the indicators in the annual reports differ

22. Figure. The change in the number of employees in program LV06 in 2016 compared to 2015 and 2015 compared to 2014. Source: LIDA. PwC analysis.



23. Figure. The change in yearly number of employees for participants in Programme LV06 in year 2016 comparing with year 2015 and in year 2015 .comparing with 2014. Source: Lursoft. PwC analysis.



3.5 Additional factors

Additional impact objects of Programme LV06 were identified, establishing whether Programme LV06 created: an impact on the macroeconomic environment, business environment, administrative burden and related cost amount; social impact; impact on the environment; impact on territorial development; impact on state and local government budgets; impact on administrative institution functions and human resources; impact on the system of national regulations and international obligations of Latvia.

As a result of the Programme the manufacturing of new products and service provision has been established in Latvia, as well as an increase in the amount of manufacturing and service provision, which both has a direct and indirect impact on the national economy.

3.5.1 Increase of tax income

Direct impact on the national economy will be ensured by tax revenue from manufacturing and service provision, as well as from the increase in the amount of materials purchased for manufacturing and necessary energy resources (consumption will increase due to additional manufacturing amount, although it becomes more effective).

3.5.2 Leverage effect

Indirect impact is created from additional income for human resources, which results from the manufacturing of new products or service provision. Whereas employees spend earned money on purchasing different goods (for example, in the household) for personal use or services (for example, beauty care). Due to the leverage effect, it is anticipated that the impact on the local economy has slightly increased, resulting from the injection of new expenditures into the local economy, in this case, manufacturing of new products and provision of services, as well as the increase in manufacturing amount. According to calculations approximate to Eurostat, the leverage effect of services in EU Member States is 1.82 . It means that one euro that is invested in manufacturing, brings in 1.82 EUR in the overall growth rate of the national economy. The leverage effect offered by Eurostat for industrial products is 2.2.

3.5.3 Increase of Export

The Programme allowed businesses to increase export and decrease import. The increase in export creates a positive effect on the balance of trade, thus improving the state economy. The product developed by *CONAK STEEL* LTD is a substitute for import, as well as the merchant has currently started negotiations with companies of Kazakhstan and is planning to export goods to this country. *PlayGineering Systems* LTD had the possibility to create a service that is provided outside the borders of Latvia and compete on a global level. 3D printing device purchased by *Baltic3d.EU* LTD provided the opportunity for the merchant to increase the manufacturing amount and export to California, the USA, because the quality and price of the offered product is competitive in the US market. According to the information provided by the merchant, the goods manufactured by *RK Metāls* LTD are better quality then the local ones. Innovation of *AV Recycling* LTD provided the possibility to provide services (repair of asphalt) in colder weather conditions than their competitors, thus the merchant addresses potential clients of Scandinavia and is planning to enter this market. Acquired equipment of *Vizulo* LTD provided the opportunity to create a new product and increase their export from 30% in 2014 to approximately 90% in 2017. As a result of Programme LV06 *Vizulo LTD* exports their production to countries with whom the merchant did not have cooperation before the project: France, Switzerland, Finland and New Zealand. As a result of Programme LV06, *Polylabs* LTD has the option to offer larger samples of their products, which are specific to the company sector and necessary for the establishment of new cooperation. Thus, the company can compete in Western Europe and Japan, where the product is currently being tested and it is anticipated that a great amount of tests will ensure orders of the production in the following years. *Polipaks NT* LTD is planning to double their manufacturing, including export amount (the company sells 60% of their products in the Baltic states and 40% outside the Baltic states). *Pellet 4Energia* LTD exports 100% of their production; by increasing the manufacturing amount the export amount also grows. *RK Metāls* LTD increased manufacturing capacity and as a result enlarged the number of export countries from 8 before the beginning of Programme LV06 to 26 at present.

3.6. Impact on state and local government budgets

As it is indicated in paragraph 5 of Activity 2, an upward tendency is observed in the paid tax amount by the participants of Programme LV06. This indicates a positive impact on state and local government budgets.

3.7 Impact on administrative burden or administrative cost amount

As a result of Programme LV06, some businesses have managed to reduce their administrative burden. Pellet 4Energia LTD acquired equipment that is safer, thus reducing the risk of inefficiency in the case that the equipment breaks, the manufacturing stops and the management of the company cooperates with insurance issues instead of addressing issues of manufacturing and improvements. Baltic3D.EU LTD had the opportunity to automate the process and replace three employees with one, thus reducing the administrative burden. VRV LTD also had the opportunity to automate their processes, by the optimisation of work that was performed by 4 people; now it is done by 3.

3.8 Social impact

The project has given the possibility to create new jobs, as well as for people with disabilities, and to employ people of retirement age and students. Nipon LTD created jobs so there is a possibility to employ employees with disabilities. As a result of Programme LV06 Baltic3d.EU LTD had the chance to see the ability of women to work in engineering and technical positions, as well as the company had the option to work with specialists and clients

with disabilities. More women and people with disabilities were provided with the possibility to work in the company Vizulo LTD. Pellet 4Energia LTD had the possibility to employ people with unemployed status, EKJU LTD provided a job for a person of retirement age, but PolyLabs LTD had the option to employ students. Due to Programme LV06 Graanul Invest LTD ensured jobs with a salary level that is competitive, to prevent people from emigrating and to motivate them to stay in the region.

3.9 Impact on the environment

In their reports to LIDA, 19 participants of Programme LV06 indicated a significant CO2 emission reduction due to their projects, 7 businesses indicated a decrease of electricity, 2 participants indicated a reduction of waste and 2 businesses a decrease of water consumption.

The financing received from the SGS for the reduction of CO2 emissions ranges from 0.1 euro to 899 euros, with an average rate of 149 euros per tonne of CO2 emission reduction per year. The significant difference in the received financing per tonne of CO2 emission reduction can be explained by the different amount of impact on the environment, namely, Affoc LTD achieved almost a 1.5 million tonne CO2 reduction with the granted 136 thousand euros, while PolyLabs LTD only reduced the amount of CO2 emissions by 45 tonnes per year, but the granted financing was only 3.5 times lower (40 thousand euros). Amongst the participants who indicated the reduction of CO2 emissions in percentage , euros per 1% CO2 emission reduction - ranges from 1 931 to 2682.

This indicator in the Open call "Support for the Introduction of Green Technologies in Production" ranges from 4 euros to 247,025 euros, with the average rate of 34 287 euros. Amongst the participants who indicated the reduction of CO2 emissions in percentage , euros per 1% CO2 emission reduction - ranges from 1 792 to 22 237.

3.10. Impact on the macroeconomic environment

As a result of the project, products that can compete in the global market were created, thus increasing the recognition and trust of Latvia globally. Environmentally friendly production is also available not only in the market of Latvia, but also outside its border due to Programme LV06.

Activity 4: Evaluation of the achievement of the objectives and monitoring indicators of Programme LV06

The results of the evaluation of the achievement of the objectives and monitoring indicators of Programme LV06 support that it has promoted the development of environmentally friendly innovations in Latvia; the specific objectives of the programme have been achieved despite that the carrying out of certain activities had to be abandoned. The key contribution of Programme LV06 has been the popularisation of the change in attitude and mindset, proving that "green" innovations do generate profits. It is highly appreciated that Programme LV06 has provided a number of start-ups with an opportunity to design and develop environmentally-friendly innovations for production of numerous products

At macro level, the impact of Programme LV06 on the general objectives of the Norwegian Financial Instrument 2009- 2014[17]:

(a) promoting of the reduction of economic and social disparities within the European Economic Area and

(b) strengthening and improving of Norway's bilateral relations through financial contributions

has not been very significant. This may have been due to the relatively small financing under Programme LV06, as a result, the very ambitious general objectives pursued by the Norwegian Financial Instrument have not been achieved.

Conversely, the specific objectives of Programme LV06, on the whole, are considered to have been achieved. The general objective of Programme LV06 (increasing of the competitiveness of the environmentally friendly economic operators, environmentally friendly innovations, and environmentally friendly business activities) as well as the specific objectives in the majority of areas have been achieved.

The specific objective of Programme LV06 was the fostering of the emerging of new innovative businesses as well as the development of advanced or significantly improved environmental technologies, services, and products, and the launching thereof in entrepreneurship in several areas.

The findings of the evaluation of the contribution of the implemented projects to the launching of innovative solutions in specific areas leads to the conclusion that the same project can related to several areas, however, the largest share of projects (about two thirds of all) related to the launching of highly diverse products, technology or processes to achieve such improvements, which contribute to the efficient use of electricity, reduction of emissions as well as to lower consumption of resources in different areas of life. The second largest number of projects (about one third) focused to the development of various environmentally friendly and energy efficient materials and products for buildings and structures. Fewer than one tenth of the projects were related to clean transportation or production of renewable energy. Only some of the projects addressed the problems in the field of the management of water resources or waste management.

The defined special interests of the Norwegian Financial Instrument aimed to strengthen bilateral relations between Latvia and Norway with a view to promoting long-term cooperation, especially in the programme areas with the partners of donor programmes, as well as in other ways, such as at the level of partnership projects across all assisted areas of the programmes.

Most of the bilateral cooperation measures of Programme LV06 definitely facilitated the exchange of information and enabled familiarisation with the approach in the cooperation country. In five cases, Latvian project

[17] In accordance with the Regulation on the implementation of the Norwegian Financial Instrument 2009-2014.

beneficiaries cooperated with Norwegian scientific institutions. In some cases prospective customers have been identified as well as the business channels for promoting the products of Latvian businesses on the market.

3. table. An overview of the parameters of Programme LV06.

Item	***Parameters of Programme LV06***
Allocations under the Programme	The total financing from public funds under the Programme was capped at EUR 12,586,667, including: 1) The allocation from the Norwegian Financial Instrument of EUR 11,328,000 2) The financing from the Latvian State budget of EUR 1,258,667
Parts of the Programme	1. Pre-incubation and incubation funds carried out by the "Green"' technology incubator; 2. SGS; 3. Open Call (hereinafter referred to as - *the open call*); 4. Bilateral fund; 5. Resources for administration of the programme; 6. Additional measures taken by the Programme facilitator.
Pre-incubation and incubation fund financing	EUR 2,674,317
SGS financing	EUR 2,478,192
Open call financing	EUR 5,593,427
The financing of the bilateral fund of the Programme	EUR 810,202
Programme administration financing	EUR 980,529
Anticipated outcome[18]	The implementation of business opportunities aimed to make the European economies "greener" through promoting environmentally-friendly jobs and entrepreneurship.
Programme implementer	The Ministry of Economy, in cooperation with the national regulatory authority *The Investment and Development Agency of Latvia* (hereinafter referred to as *the Agency or the LIDA*) and the donor country programme partner, i.e.,
Donor programme partner	The State Enterprise "Innovation Norway" established in the Kingdom of Norway (Norway's Innovation Agency)
Programme implementation deadline	31 December 2017
Main direction	The overall objective of the programme are to increase the competitiveness of green businesses, including the competitiveness of existing businesses, green innovation and green entrepreneurship. The specific objective of the program is to facilitate the creation of new innovative businesses and the development and introduction of new or significantly improved innovative environmental technologies, services and products in production.

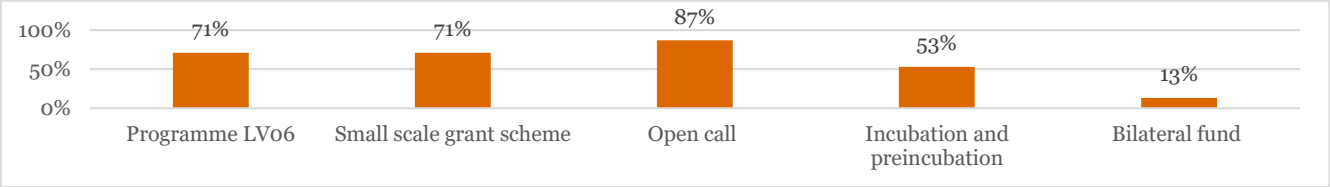
At the time of preparation of this evaluation (01.10.2017), the participants of Programme LV06 had received the support amounting to EUR 8,154,447, i.e., 71% of the total public financing initially allocated to the programme. Comparing the individual parts of the Programme, the participants of open calls managed to absorb the largest amount of the allocated funding (87%). Conversely, the activities that had focus on the bilateral cooperation of the members of the cooperation fund had not been as successful – this part of the Programme absorbed only 13% of the allocated public financing. As for the bilateral cooperation within the scope of the activities of the fund, it must be taken into consideration, however, that the activity was still in progress at the time of preparation of this report, thus, the non-absorbed financing might potentially be used in the remaining activities. The information provided by the LIDA suggests that at the initial phase of Programme LV06, the participants had to be addressed individually and encouraged to join the activities of the bilateral fund, because identifying of the appropriate target audience of businesses for the activities of which the fund would be most appropriate turned out to be

[18]Annex B to the Memorandum of Understanding of the Norwegian Financial Instrument. Available at http://www.eeagrants.lv/?id=50

difficult. In addition, responsiveness and voluntary joining on the part of the participants was rarely observed. As for the absorption of the financing within the scope of SGSs and pre-defined project, more than a half of the available amount has been absorbed, i.e. 71% and 53%, respectively.

The total available financing under the Programme amounted to EUR 12,586,667, as depicted in *24. Figure. The financing absorbed by the participants of Programme LV06 of the total allocated public financing Source: LIDA, PwC analysis.*

24. Figure. The financing absorbed by the participants of Programme LV06 of the total allocated public financing Source: LIDA, PwC analysis.



4.1. Reasons for under absorption of financing

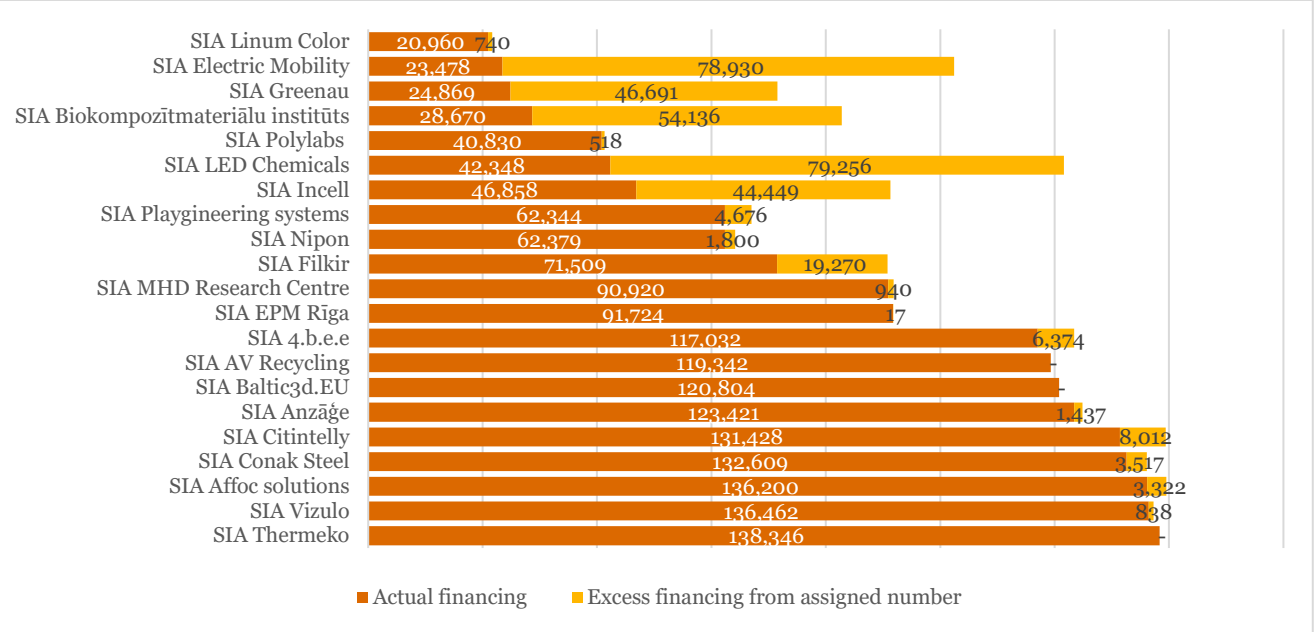
For several projects financed under the Programme LV-06, under absorption of financing has been observed as depicted in *Figure 24. The financing absorbed by the participants of Programme LV06 of the total allocated public financing. Source: LIDA, PwC analysis*. The unabsorbed share of the financing under the SGS was greater than that under the Open Call.

Under the scope of SGS, and essential part of the financing was under absorbed by:

- SIA *Filkir*: 21% of the financing under absorbed.
- *LED Chemicals*: 65% of the financing under absorbed.
- *Greenau*: 65% of the financing under absorbed.
- SIA *Biokompozītmateriālu institūts*: 65% of the financing under absorbed.
- SIA *Electric Mobility*: 77% of the financing under absorbed.
- SIA *Incell*: 49% of the financing under absorbed

We had the opportunity to discuss the relevant hampering factors with five of the six above-mentioned participants. Among the factors hampering the achievement of the set objectives for these five participants, economic and financial factors (for example, at the launching of the project was difficult to forecast the amount of the necessary financing, as a result of the procurement the financing necessary for purchases fell) were named by two participants. Two participants referred to technological factors (such as the changing technology). One participant referred to the company's management and staff related factors; two participants referred to suppliers-related factors. One participant had to change the counterparty during the project (a scientific institution), which led to the delaying of the implementation of the project. According to one participant, the lengthy reporting process and unpredictable cash flow delays under Programme LV06 had been the key factors for the delay. The slow pace of the development of the technology had been pointed out as another factor. According to three out of the six participants, the process of absorbing the financing had been lengthy and should have been shorter for better results. For one of the participants, the delay was due to the complexity of the preparation of the application and meeting the reporting requirement, requiring extra resources. A disadvantage in the view of one of the participants was the lack of flexibility of Programme LV06 (fixed financing) due to which the participants might have applied for the maximum amount of financing.

25. Figure. The financing absorbed by the participants of the SGS and the surplus from the initially allocated financing under Programme LV06. Source: LIDA. PwC analysis.

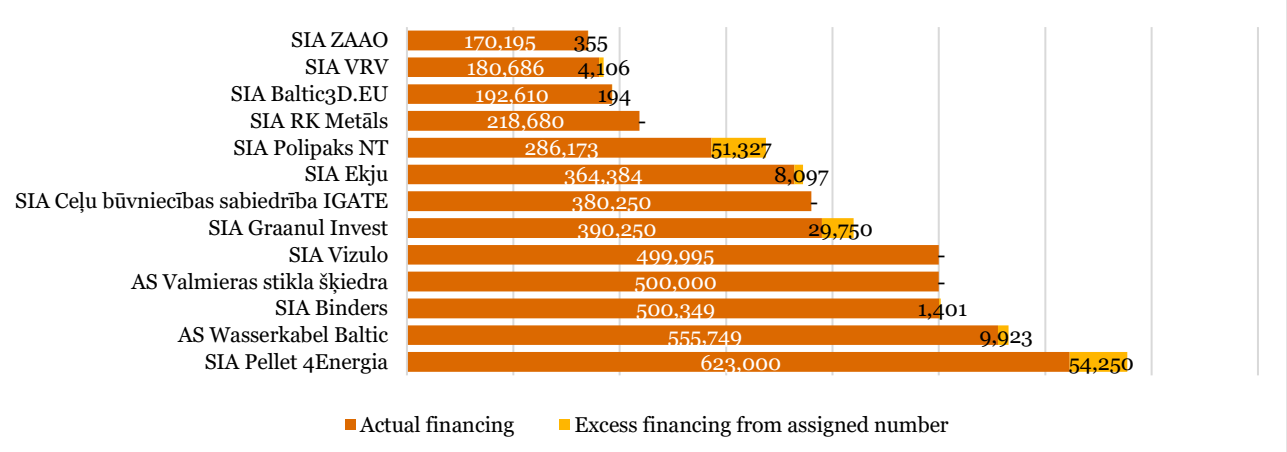


Within the scope of the Open Call, a substantial amount of the financing had been under absorbed by:

- SIA *Polipaks NT*: 15% of the financing under absorbed.
- SIA *Pellet 4 Energia*: 8% of the financing under absorbed.
- SIA *Graanul Invest*: 7% of the financing under absorbed.

The amount of the under-absorbed financing was lower under the Open Call. The complex procurement organisation process as well as the long period of time between the initial payment and the remaining portion of the payment were referred to as the hampering factors.

26. Figure. The share of financing absorbed by the participants of the Open Call and the surplus of the initially allocated financing under Programme LV06. Source: LIDA. PwC analysis.



It follows from the above that the main factors underlying the under absorption of the financing are related to the erroneous forecasts of the necessary financing, the limited ability of some businesses to fulfil the administrative requirements, and hence delays in the planned schedules combined with a slower than expected pace of development of the technology. As a result, under the SGS, six participants were unable to achieve better performance and absorb the financing they had applied for in full.

4.2 Factors contributing or hampering the achievement of the objectives

PwC made a summary regarding the achievement of the objectives and monitoring indicators of Programme LV06, based on the analysis of the factors contributing and hampering the achievement of the objectives, as well as compared the actual indicators to budgeted under Programme LV06, evaluated the circumstances, in which significant under-performance or over-performance of the indicators had occurred. The conclusions laid down in this section of the report are based on the survey and interviews conducted by PwC, using the questions presented in Annex 5. The questionnaire of the survey.

The factors contributing to the achievement of the objectives under the SGS and under the Open Call

As depicted in *26.figure. The factors contributing to the achievement of the objectives set by the participants under the SGSs and under the Open Call (number of responses)* as for the factors contributing to the achievement of the objectives, those referred to most often in the interviews and the survey conducted were technological factors – the feasibility of using the developed products, services or the technology (by 15 out of 32 respondents); economic and financial factors, including the availability of the financing under Programme LV06 (by 21 out of 32 respondents); synergy with the organizational goals (by 20 out of 32 respondents), the company's management and staff related (by 16 out of 32 respondents), consumer-related factors, i.e., the demand for the product or service (by 13 respondents out of 32 respondents), other factor (by 3 out of 32 respondents, whereof one respondent pointed out to a simpler production process), as well as the regulatory framework (by 2 out of 32 respondents).

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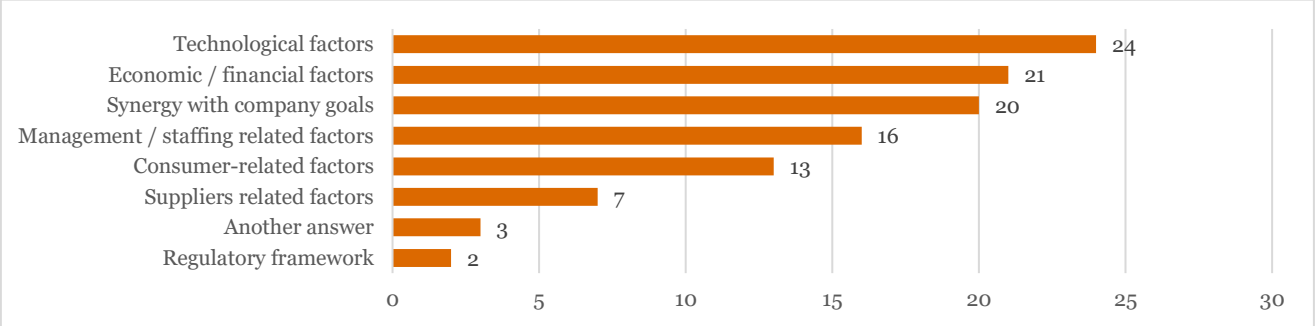
27. Figure. The factors contributing to the achievement of the objectives set by the participants under the SGSs and under the Open Call (number of responses).



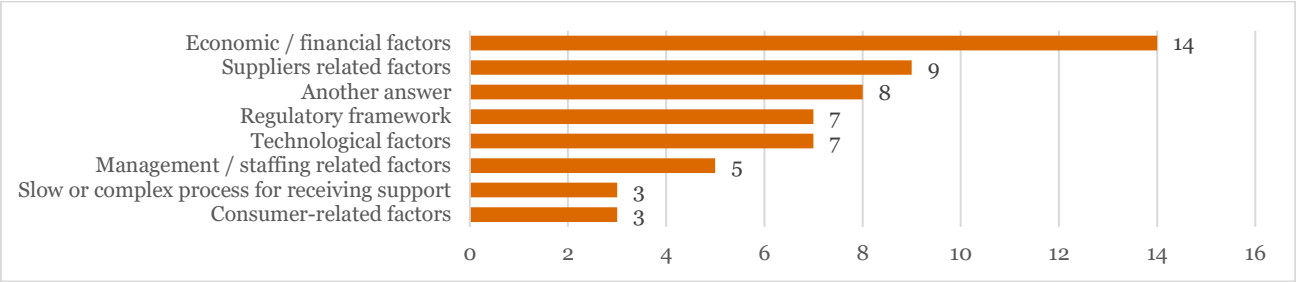
4.3 The factors hampering the achievement of the objectives

In the survey of 32 respondents, where the respondents could select the suggested answers to the questions (multiple-choice questions), financial and economic aspects were referred to as the principal hampering factors (by 14 out of 32 respondents), which is related to an uneven flow of cash from project financing under Programme LV06, the need to attract additional financing and own costs incurred due to the introduction of the infrastructure, as demonstrated in *28.figure. SGS and project applications for the Open Call; the factors hampering the achievement of the objectives set by participants (number responses).*

9 respondents (out of 32) referred to supplier-related factors, including difficulties related to the finding of suppliers; one of the participants had to change the scientific institution during the implementation of the project. 8 respondents (out of 32) indicated "other factor" in their answers, specifying in the majority of cases that there

had been no hampering factors during the implementation of the project; one of the respondents pointed out to the ineffective communication between the donor and recipient of the financing. According to 7 respondents (out of 32), the excessive regulatory framework requirements had been the hampering factor, mainly due to the administrative burden related to the preparation of the applications and reports for the purpose of obtaining the financing. 7 respondents (out of 32) referred to technological factors, i.e., mainly the slow pace of the development of the technology and the need to master the operation of the newly-implemented technology. According to 5 respondents (out of 32), the delays occurred due to the issues related to the business' management and staff, 3 respondents pointed out to the slow and complex process for receiving the support, in combination with the seasonality of business and delays in the application and report approval processes due to which the schedule of the project lagged behind. 3 respondents (out of 32) referred to consumer-related factors (i.e., customer demand).

28. Figure. SGS and project applications for the Open Call; the factors hampering the achievement of the objectives set by participants (number responses).



4.4 Additional factors

In the survey conducted by PwC, 14 respondents (out of 32) indicated that the support approval process should have been shorter, whereas 13 respondents (out of 32) pointed out that process should be simplified. At the same time, according to 8 respondents (out of 32), no improvements in financial support administration are not required, pointing out that the process is simpler than, say, that used by the Central Finance and Contracting Agency; the approval process is shorter and cash flows are better.

One of the businesses (out of 32) was of the view that the burden was the low financing intensity because of the requirement to attract financing for the remainder part (30%), and the relevant counterparties had to be identified within a very short time span. It should be mentioned here that this was a prerequisite of Programme LV06.

The preparation of the documents for submission and of the reports had been another major burden, for which 3 companies (out of 32 respondents) engaged an external assistance; alternatively the in-house resources of the companies had been subject to a significant burden. According to the feedback provided by the consultant engaged by one merchant in preparation of the application and reporting, the wording of the terms and condition does not promote an easy understanding thereof. One of the recommendations was to include as part of the Pre-defined project (including the pre-incubation and incubation funds) training focused on the preparation of the application. In the view of two participants (out of 32 respondents), the preparation of the application had been a complicated process; the processing thereof also took a long time, so the respondents had had no confidence of whether they would receive the support. According to the information received from the LIDA, businesses had had the possibility to submit interim reports every 3 months to get compensation for the financing spent over the three months. The businesses had been aware of this opportunity as it formed an integral part of the contract. The depiction of cash flows to businesses from the LIDA (Annex 3. LIDA payment schedule) suggests that the businesses had not used this opportunity. One respondent (out of 32 respondents) pointed out that the procurement procedure for purchasing raw materials would need simplifying, furthermore, the procedure for the case where there is only one supplier should be defined. According to the reports available to the LIDA, the documents were subject to the extra approval process due to two factors:

1) amendments to the contract had been negotiated with several businesses, and
2) most businesses chose the RFP approach for procurements rather than the tender (call), which resulted in an increased reporting burden after the procurement.

Three respondents (out of 32 respondents) pointed out that the whole amount of the project financing was received only after all of the reports had been approved, which meant a "freezed" portion of financing during the

report approval process. According to one of the respondents, the approving of the reports often took longer, which delayed the cash flows, which in turn delayed other processes, such as identifying of the prospective suppliers and raw material ordering process. According to the information provided by the LIDA, the balance of the financing was remitted to businesses after all of the required reports and confirmations had been approved/received consistently with the terms of the contract between the relevant merchant and the LIDA. According to the information provided by the LIDA, businesses had had the opportunity of submitting interim reports every 3 months to get compensation for the financing spent within the 3 months. The businesses had been aware of this opportunity as it formed an integral part of their contract. The depiction of cash flow to businesses from the LIDA.

One of the respondents (out of 32 respondents) pointed out that the length of the approval process was related to the fact that submitting of the documents electronically was not possible, i.e., all of the documents had to be in paper form. According to the LIDA, the businesses who had electronic signature had the opportunity to submit their documents electronically; otherwise, all of the reports had to be submitted in the form of paper documents.

One of the respondents pointed out to the work overload of the LIDA staff, due to which getting confirmation of some of the aspects during the consultation proved to be impossible, and the submitted documents had to be corrected due to misunderstandings. The LIDA confirmed that during certain periods, the staff resources allocated for Programme LV06 were scarce.

One of the respondents (out of 32 respondents) drew attention to the fact that the preparation of the application and report-writing was such a lengthy process and took such a long time on the part of the employees that getting a bank loan for the project would have been cheaper.

29. Figure. The experience of the participants of the SGS and of the Open Call related to the receiving of the financing (the number of the responses received). Source: Summary of the conducted interviews.

4.5 Assessment of the identified indicators for consistency with the initial objective of Programme LV06

The indicator, which was under achieved most significantly, related to the Attracted private sector investments in environmentally friendly technology projects supported by Programme LV06, where the financing attracted was by nearly 14% lower than expected. Such under achievement of the budgeted performance might be related to excessive optimism during the programme planning, because taking into consideration that e.g., the financing of the activities of start-ups and the development of innovative products is associated with a very high risk, there would be a higher probability for attracting more private financing. On the other hand, the under performance of the indicator might be related to other circumstances such as belated launching of Programme LV06 followed by a hurry in the absorption of the financing, inability to absorb the allocated financing in full or other factors other than those related to the objectives of the support. Because identifying of a single influencing factor is not possible, drawing of express conclusions of the assessment of the outcome indicator for consistency with the initial objective, such as the inconsistency thereof to the intervention logic, is rendered impossible.

The evaluation of the overall objectives of Programme LV06, the budgeted and actual performance, as well as the activities to be supported leads to the conclusion that in general, they are mutually consistent in cases where new environmentally friendly products, services or technology are successfully developed, because for the manufacturing or designing of such environmentally friendly innovations, the merchant is required to implement new operational processes calling for additional resources, such the creation of new jobs.

However, where environmentally friendly technologies are designed or introduced into an existing production process in accordance with the purpose of intervention “the implementation of new or substantially improved innovative environmental technologies in entrepreneurship”, as it mostly the case in the part “Support for Introduction of Green Technologies in Production” of Programme LV06, a controversial situation arises: a more efficient, environmentally friendlier technology most likely would enable businesses to increase their efficiency,

reduce investments, including fewer employees in the processes to be automated in the future. Consequently, one of the objectives of Programme LV06, which is related to the creation of new jobs and applies to all recipients of the support, is not consistent with the outcome achieved by the merchant, i.e., the actual resource efficiency under that part of Programme LV06. I.e., the intervention logic is not consistent with the nature of the project, therefore, it would be advisable not to require the creation of new jobs for the projects that result in optimization of processes, including automation, which by definition reduces the need for labour.

4.6 Statistical summary of the performance of the monitoring indicators of Programme LV06

Comparison of the monitoring indicators of Programme LV06 laid down in the planning documents with the performance indicators thereof as demonstrated in *4. table. Summary of indicator performance. Source: LIDA*., it can be seen that all of the actual outcome indicators are considerably higher than those budgeted initially, whereas the outcome indicators have either been achieved or slightly under achieved, except the amount of investments attracted from the private sector within the scope of the environmentally friendly technology projects supported under Programme LV06, which lag behind by nearly 14%.

The factors contributing or hampering the achievement of the performance indicators, as well as the description of the situations where objectives had been significantly over achieved or under achieved is provided in section: 4.2.

4. table. Summary of indicator performance. Source: LIDA.

Indicator	Budgeted value	Actual value	Performance achieved
Performance indicators:			
Successfully developed, adequate, and commercialized environmental technologies and environmentally friendly products	15	40[19]	Yes
Businesses had been enrolled to GTI and received pre-incubation services	10	15[20]	Yes
Environmentally friendly jobs created	60	126[21]	Yes
The businesses that received the ZTI services and support under the SGS, have successfully commercialised their environmentally friendly business idea	10	21	Yes
Attracted private sector investments in environmentally friendly technology projects supported under Programme LV06	9,400,000	7,977,648.33[22]	No
Support provided to the projects focused on the launching of innovative environmental technologies	15	15	Yes
ZTI established in Riga	1	1	Yes
Pre-incubation business ideas have received pre-incubation services	70	153	Yes
Businesses have enrolled to ZTI and received support from small-scale grants scheme	15	24	Yes
Rooms with an area of 1,800 square meters renovated and available at ZTI	1,800	-	Not applicable[23]
Interested parties involved in exchange visits between recipient and donor countries	30	102[24]	Yes

[19]30 new products, 5 "green" processes and 5 "green" technologies have been launched. Source: Information provided by the LIDA.
[20] Source: Information provided by the LIDA.
[21]According to the information provided in the reports submitted by the merchants who received the support and reviewed by the LIDA, under the open call "Support for Introduction of Green Technologies in Production" of Programme LV06, 61 jobs have been created. Under SGSs, 74 jobs have been created, however, it should be noted that five projects have not been completed, therefore this indicator is likely to change. Source: LIDA.
[22] At present, the private financing attracted under the open call "Support for Introduction of Green Technologies in Production" of Programme LV06, amounts to EUR 7,846,110.52, under the SGS – EUR 276,850.38. Small Scale Grant Scheme indicator will be updated after completion of the projects. Source: Information provided by the LIDA.
[23]According to the information obtained from the 2015 Cooperation Committee, ZTI refuses from the renovation objective; the decision has been taken to reallocate the assigned financing.
[24] Only Latvian merchants.

Activity 5: Assessment of the sustainability of the performance of Programme LV06

The businesses have pointed out to the improvement of their financial sustainability owing to the launching of the products, services or technologies developed under Programme LV06. The businesses have expressed their willingness to continue to develop environmentally friendly innovations and point out to the importance of factors such as staff motivation in developing environment friendly innovation products, aggregating of innovative ideas within the company, and the knowledge and skills of employees necessary to develop and implement environmentally friendly innovations

According to the information received from the interviewed businesses, the products and services currently offered by the companies are aimed to promote energy savings, mitigate the impact on the environment, optimise waste recycling (reusing of the materials), improve the design of eco-products or corporate governance. This is a topical objective at the national[25] as well as at the global level[26]. This supports the likely increase in the demand for environmentally friendly production innovations (including technologies, goods and services) in the future both in the public and in the private sectors. The businesses pointed out that the essential prerequisite would be an increase in demand, on the part of the public sector, for environmentally friendly goods, services and technologies, including the clearly expressed support on the part of the lawmaker, incorporating the relevant requirements in the laws and regulations.

5.1 The analysis of the sustainability of Programme LV06, i.e., the capacity of the beneficiary of the financing to maintain the performance achieved after receiving the support

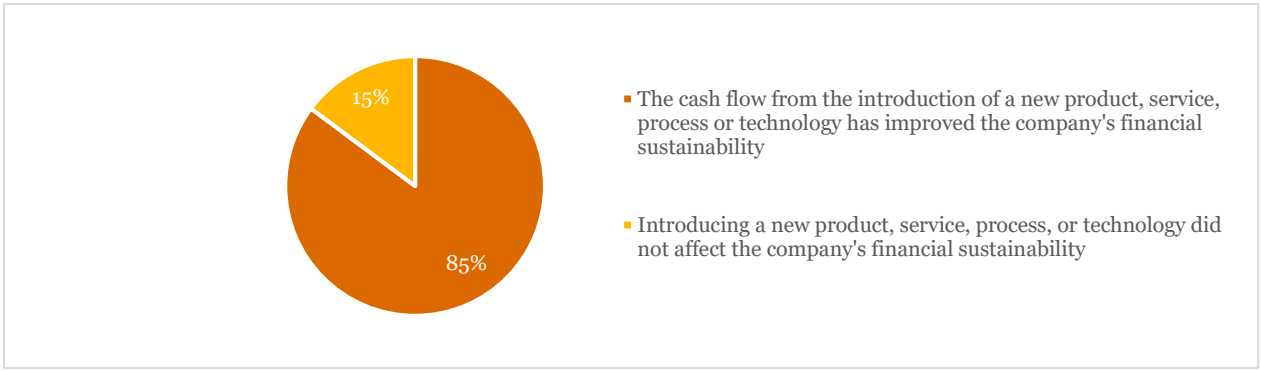
According to the majority of the businesses surveyed (23 businesses out of 27 who responded to the question, i.e., nearly 85%), their financial sustainability improved as a result of implementing the project under Programme LV06, which ensured new cash flows or improved the existing cash flows or improved the efficiency of labour and reducing the cost of production), as demonstrated in *30. Figure. The impact of Programme LV06 on the assessment of the financial sustainability (the share of the responses received). Source: PWC interviews*. E.g., the launching of the new service or product introduction provided additional cash flows and improved the company's financial sustainability of the following businesses: SIA *PlayGineering Systems*, SIA *MHD Research Centre*, SIA *EPM Rīga*, SIA *AV Recycling*, SIA *VIZULO*, SIA *FILKIR*. The launching of a new equipment ensured a higher efficiency or ensured an increase in production volumes, as a result of which the financial sustainability was ensured to the following businesses: SIA *Baltic3d.EU*, SIA *POLIPAKS NT*, SIA *EKJU*, SIA *Pellet 4Energia*, SIA *Binders*, SIA *Graanul Invest*, SIA *ZAAO*, SIA *RK Metāls*, SIA *VRV*.

The administrative sustainability improved for SIA *PolyLabs*, AS *Valmieras stikla šķiedra*, SIA *POLIPAKS NT*, SIA *EKJU*, SIA *Pellet 4Energia*, SIA *Graanul Invest;* these represent 25% of the respondents, i.e., 5 responses from 20 respondents who responded to this question as demonstrated in *31. Figure. The impact of Programme LV06 on the assessment of the financial sustainability (the share of the responses received). Source: PwC interviews*. Here, the key reason was the opportunity to automate processes, improve the efficiency thereof and use less labour as well as use safer equipment which run out of order or break down less frequently, eliminating the need for the required administrative effort.

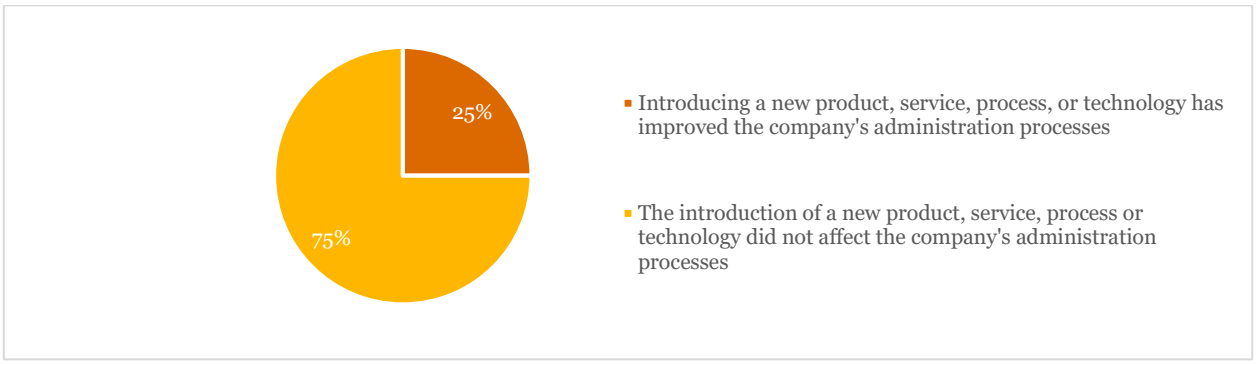
[25] the *Saeima* (Parliament) of the Republic of Latvia (2010): *Sustainable Development Strategy of Latvia until 2030*. Available at: file:///C:/Users/idose001/Downloads/Saeima_100610_Latv_ilgtsp_att_strategija_Latvija2030.pdf

[26] Centre for Climate and Energy Solutions (2015): *The Paris Agreement*. Available at: https://www.c2es.org/international/paris-agreement?gclid=EAIaIQobChMItM7mzfPb1gIVRsayCh3i4AwxEAAYASAAEgIpnvD_BwE

30. Figure. The impact of Programme LV06 on the assessment of the financial sustainability (the share of the responses received). Source: PWC interviews.



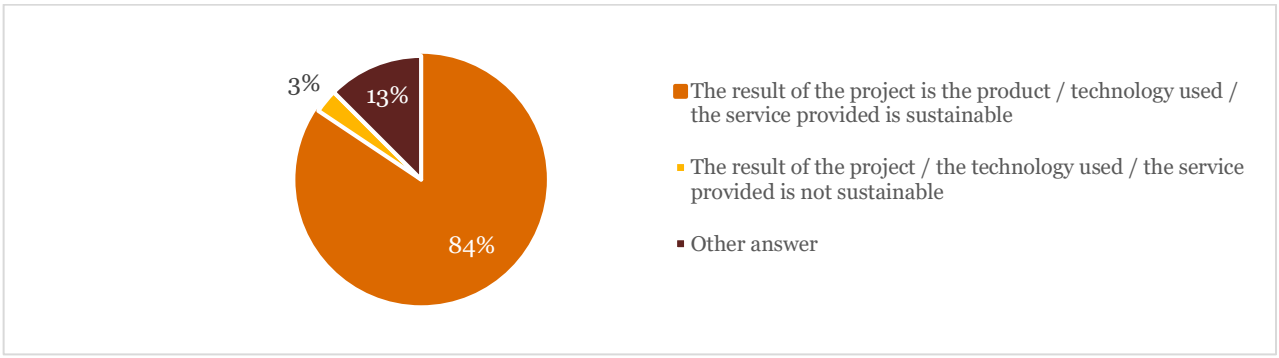
31. Figure. The impact of Programme LV06 on the assessment of the financial sustainability (the share of the responses received). Source: PwC interviews.



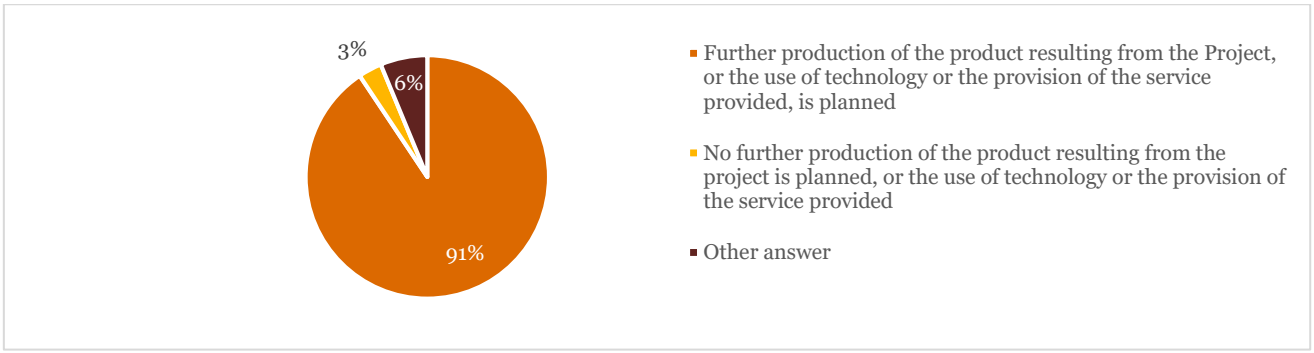
5.2 Forecasts for maintaining of the sustainability of merchant

Most of the businesses (27 out of 32, i.e., 84%) believe that the product, the service or the technology developed by them is sustainable, as demonstrated in The sustainability of the newly developed products or services in the view of businesses: SGS and project applications for the Open Call (the share of the received responses). Source: PWC interviews. Most of the businesses (29 out of 32 respondents, i.e., 91%, who responded to this question) intend to use the products, services and technologies resulting from Programme LV06 in the future as demonstrated in

32. Figure. Sustainability of the newly developed products or services in the view of businesses: SGS and project applications for the Open Call (the share of the received responses). Source: PwC interviews.



33. Figure.The plans of businesses to maintain the manufacturing of innovative goods/providing of the newly developed services: SGS and project applications for the Open Call (the share of the received responses). Source: Summary of the results of PwC interviews



5.3 Factors contributing to the sustainability of the performance

As depicted in *34. Figure. SGS and Open Call - the factors contribution to the sustainability of the objectives achieved by the participants (based on the number of responses) Source: PwC interviews.*, in the interviews conducted by PwC, the following major factors contributing to the sustainability of the products, services and technology developed under Programme LV06 have been mentioned:

1) technological factors (21 respondents out of 32),

2) economic/financial factors (18 respondents out of 32), and

3) consumer-related factors, i.e., customer demand (16 respondents out of 32).

As depicted in *34. Figure. SGS and Open Call - the factors contribution to the sustainability of the objectives achieved by the participants (based on the number of responses) Source: PwC interviews.*it is essential to note that among the factors named by the businesses who took part in Programme LV06, quite a few were related to

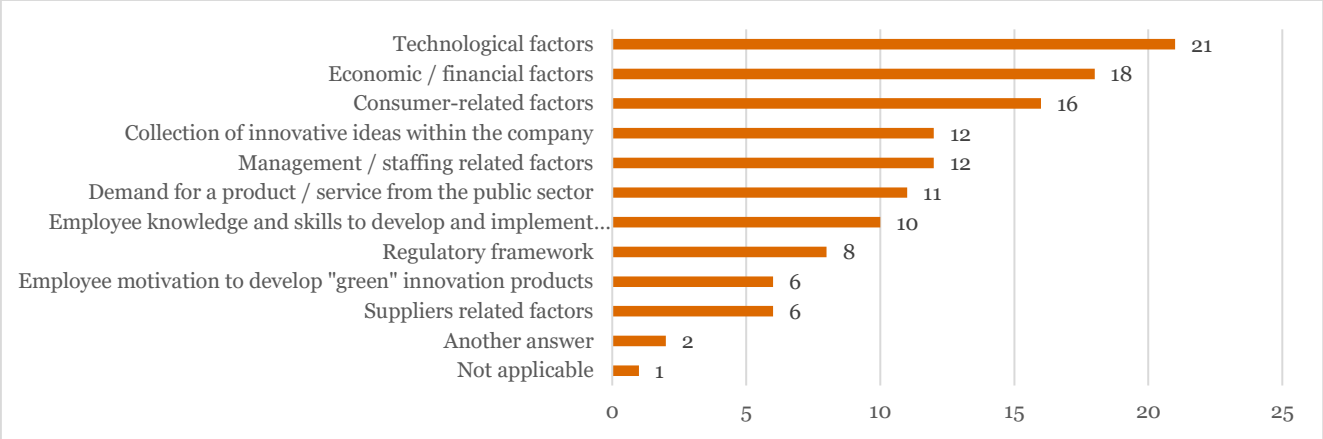
1) summarising of innovative ideas within the company (12 out of 32 respondents),

2) the knowledge and skills of staff necessary to develop and implement environmentally friendly innovations (10 out of 32 respondents),

3) the motivation on the part of employees to develop environmentally friendly products (6 out of 32 respondents).

That these factors are important is pointing to the interest on the part of the businesses to continue the developing of environmentally friendly innovations by their businesses. Other factors mentioned by the participants included the following: the factors related to the management/company's employees (12 out of 32 respondents), demand for the product or service on the part of the public sector (10 out of 32 respondents), the regulatory framework (8 out of 32), as well as suppliers-related factors (6 out of 32).

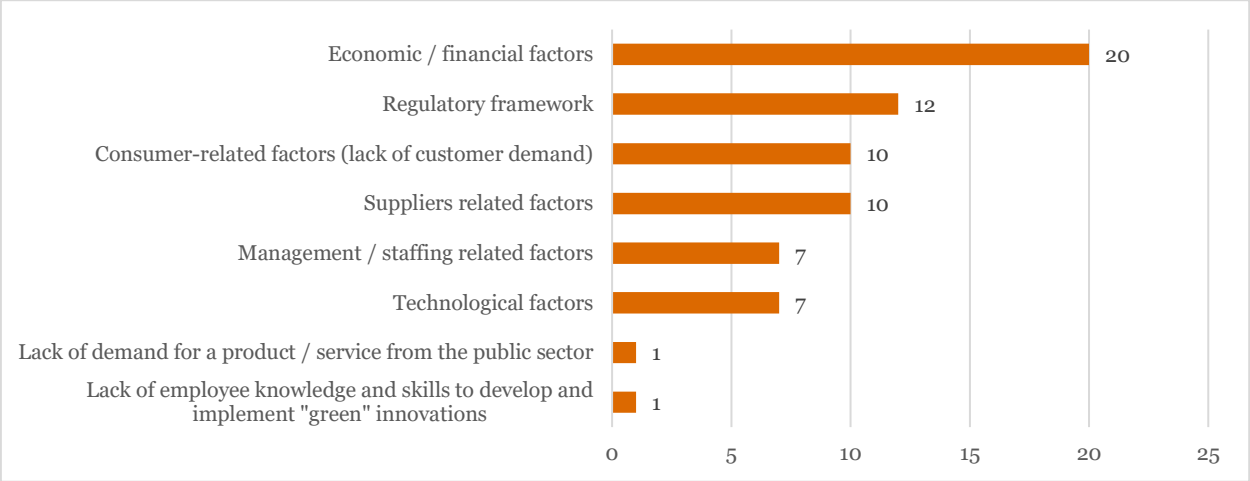
34. Figure. SGS and Open Call - the factors contribution to the sustainability of the objectives achieved by the participants (based on the number of responses) Source: PwC interviews.



5.4 The risk factors potentially hampering the sustainability of the performance

As regards the major risks to the sustainability in the production of goods, provision of services or of the technology, the participants of Programme LV06 referred to: economic and financial factors (20 of 32), the regulatory framework (12 of 32), the lack of the consumer demand (10 of 32), suppliers-related factors (10 of 32), corporate management or staff related factors (7 of 32), and technological factors (7 of 32), as depicted in *35. Figure. SGS and Open Call - the factors hampering the sustainability of the objectives achieved by the participants (the number of responses received in the survey).*

35. Figure. SGS and Open Call - the factors hampering the sustainability of the objectives achieved by the participants (the number of responses received in the survey).



Activity 6: Assessment of political, economic and administrative circumstances

The biggest success of Programme LV06, which ensured the achievement of targets proposed by it, was the activity of the Green Technologies Incubator, support of the Norwegian state company Innovation Norway and participation of Norwegian experts in the performance of the selection of cooperation partners. In order to achieve better results, it is recommended to significantly improve the management, supervision and control mechanism of the programme, in order for the implemented administrative procedures and institutional management model not to cause obstacles for the timely fulfilment of measures of the programme and for it to be possible to acquire a proportionally bigger amount of funding within a reasonable time

PwC identified and analysed key influential political, economic and administrative factors in implementing the Programme LV06. In order to assess the political influence and administrative factors, an analysis of the acceptance and compliance with the procedures for the adoption of regulatory enactments and development planning documents related to the implementation of the programme was carried out. In assessing the economic impact factors, the potential financial gain was taken into account, the indirect impact of the objectives of the programme on the economy and the economic activity of the businesses, as well as the social effect, were assessed.

The most significant is the direct and indirect economic impact of the Program LV06 on the economy and enterprises:

1) Increase of tax payments**.** increase of tax payments paid by businesses to the state budget, including: tax incomes from manufacturing and service provision. For instance, the total sum of taxes paid for the SGS and open call "Support for the Introduction of Green Technologies in Production" (EIT, SSIMC, PIT) between 2014 and 2016 has increased by 32% (or EUR 4.5 million).

2) Growth of produced goods and export of services**.** Participants of Programme LV06 indicate the growth of their produced goods and export of services (for example, SIA Vizulo exports to new countries: France, New Zealand and Finland, SIA RK Metāls increased the number of countries from 8 countries in the beginning of the project to 26 at the end of the project) and the reduction of import as a result of the replacement of production of goods to be imported (for example, import replacement developed by SIA Conak Steel)[27].

3) Creating globally competing products**.** In frames of the programme, products were developed, that were able to compete on the global market (which is observed by the export increase of businesses and results in the increase of market demand), increasing the availability and global trust of Latvia (for example, 3D printed products of SIA Baltic3d.EU, sports video analytic system of SIA PlayGinering Systems, production of capillary tubes of SIA Wasserkabel Baltic, production of cold asphalt of SIA AV Recycling, and production of LED airport runway and territory luminaries of SIA Vizulo).

4) Ensuring sustainability of production, creating the potential for further production of goods and services.

5) Increase of effectiveness and increase of financial means to be used and available for businesses by optimising business processes, which can probably be invested in the development of the company (for example, the equipment acquired by SIA VRV has enabled it to significantly improve work efficiency: it is possible to process bigger volumes with less resources within the shortest period of time[28]).

[27] Source: Summary of interviews of participants of Programme LV06.
[28] Source: Summary of interviews of Programme LV06.

6) Leverage effect. Indirect impact on the Economy of Latvia as a result of the production of new goods or provision of new services.

An important socio-economic impact of LV06 is also indicated by the creation of new jobs: 126 new jobs were created at the time of the development of the evaluation (10.1.2017), the number of which has increased by six to 01.12.2017. The creation of new jobs has an immense socioeconomic impact, possibly preventing people from emigrating or increasing their motivation to stay in the region).

Analysing the political impact of the Programme LV, it is concluded that the small amount of financial intervention has not been the initiator of significant changes at the political level. In fact, the turning point in the treatment of "green" innovations is most likely to have happen only among those who were the beneficiaries of the financial support.

When evaluating administrative factors, it is recognised that they have been very significant.

In the administration of Programme LV06 there were used a fairly rigorous monitoring mechanism involving at least three institutions. The implementation of the programme was ensured by the programme operator- the Ministry of Economics, in cooperation with the state administration institution "Latvian Investment and Development Agency" (LIDA) and partner of the donor country - the Norwegian state company "Innovation Norway". The programme operators established a liaison committee (hereinafter - Liaison Committee) representing the representatives of the programme manager, the agency and the donor country partner program. A partner representative of the Donor Programme partner who was not represented in the Co-operation Committee participated in an open call and a pre-defined project evaluation committee as a voter. A large number of persons involved usually extends the decision-making process.

The project application documentation was prepared and the tenderers' selection as well as the reports were implemented in accordance with Cabinet Regulation No. 181 of April 2, 2013, the Norwegian Financial Mechanism 2009-2014 Program "Innovation in Green" field of implementation '. A rigorous monitoring mechanism had to be ensured in both evaluating and rejecting project applications (for example, involving competent external experts in project selection) and project reporting processors, ensuring scrutiny of reports and reducing risks of malpractice.

PwC analysis (information provided by beneficiaries, evaluation of primary data) and interviews with the stakeholders (Norwegian Embassy's Senior Advisor - Business Relationships and EEA / Norwegian Grant Issues, Executive Director of the Green Technology Incubator, Financial Instrument Office, Environmentally Friendly Industry Innovation Representative, Norwegian Industry the Managing Director of the Development Centre) and the programme managers - helped identifying the mjor political, economic and administrative factors that facilitated and delayed the implementation of the Programme LV06 and the achievement of its objectives.

6.1 The political, economic and administrative factors contributing to the implementation of LV06 and the achievement of the objectives:

The core objectives of the Programme LV06 were achieved by its administrative organisation - the responsible persons who were committed to achieving the goals in the best way, the potential economic benefits for project participants and political support for the programme as a whole, ensuring the development of the legislative framework as timely as possible, but there are some success factors that are additional highlights:

1) The timeframe chosen for the provision of financial support for “green” innovation projects, as other support mechanisms, such as EU Structural Funds, were not available.

2) Involvement of GTI and *Innovation Norway* in programme LV06. The Green Technology Incubator was created only in Latvia and, from the point of view of the stakeholders, its operation was very successful and is considered to be a good practice, currently introducing similar incubators in other countries. Such a tool demonstrates that not only material incentives are important, but business consulting and knowledge sharing is also very important. This is evidenced by the cooperation facilitated by GTI between

Latvian and Norwegian businesses and the continuation of the participation of 15 incubation and pre-incubation programme participants in a Small scale grant scheme where new products were developed. The participation of the Norwegian businesses and at the same time the experts of the industry, GTI, contributed to the development of the incubator and was an important driver of Norwegian-Latvian cooperation and the transfer of good business practice from Norway to the Latvian market.

3) The care taken by the GTI and programme participants to select the most appropriate Norwegian partners (according to the scope of the activities of the Latvian businesses and / or according to the field where the new product or service is introduced) and involvement in the bilateral cooperation activities based on either personal contacts or established contact lobes in Latvia and in Norway.

4) The draft law "The Law on the Management of the European Economic Area Financial Mechanism and the Norwegian Financial Mechanism 2009-2014" was drafted within a relatively short period of time (7 months from the signing of the Memorandum of Understanding on the implementation of the Norwegian Financial Mechanism 2009-2014 year between the Republic of Latvia and the Kingdom of Norway). The Law on the Management of the European Economic Area Financial Mechanism and the Norwegian Financial Mechanism 2009-2014 was adopted within two months.

6.2 The implementation of the Programme LV06 and the political, economic and administrative factors hindering the achievement of its objectives:

Below are the delays in the order of their relevance.

1) A relatively large surplus of the financial funding of the Programme LV06 in the final stage in the implementation of the programme and the need to extend implementation deadlines, point to issues either in its administrative organisation or in planning mistakes. By analysing the administrative organisation, including the development of the regulatory framework, it is impossible to precisely identify specific reasons (institutions or cooperation partners), which influenced the late launch of the programme and subsequently caused issues for the entire financing of available funding for Latvian projects. The Programme LV06 was managed by the Ministry of Economics in cooperation with the LIDA and the partner of the donor country - the Norwegian State Enterprise Innovation Norway. This led to necessity to ensure the coordination of documents and activities between the LIDA and the Ministry of Economics, and between the Latvian side and *Innovation Norway*, which was likely to prolong administrative procedures. In interviews with representatives of the Norwegian parties, it was pointed out that involvement of the Ministry as a policy planning institution in the operational management of such a programme is untypical, usually in other countries it is implemented by a specialised institution, which has the appropriate knowledge and experience and the ability to independently carry out the activity for reaching the goal. As a good practice, there was a distribution of responsibilities and responsibilities for the implementation of an identical programme in Estonia, where the programme operatorwas able to start the programme one year earlier than in Latvia. However, according to the information provided by the Programme LV06 Manager, the institutional organisation for the implementation of a “green” innovation projects in Latvia, Lithuania and Estonia is identical - the Ministry is relevant, but the specific activities are carried out by a subordinate specialised organisation. One of the obstacles could be a fragmented organisation of the Programme LV06, with parallel activities of five different activities. So many parallel project activities for a relatively small program and a limited amount of finance create fragmentation and increase the administrative burden for implementers. Consequently, it is not possible for the external valuator to determine directly whose coordination of decisions is excessively time-consuming, at which stages there is an excessive internal or external administrative burden.

2) The relatively time-consuming launch of the Programme LV06 reduced the time allocated to projects and bilateral co-operation activities. According to the information provided by the donor country, the programme was launched in Latvia later than in other countries, therefore, a large part of the Norwegian partners were already unavailable, as they were involved in the activities of other countries' programmes. As the competitiveness of innovation is significantly enhanced by the timely implementation of the new

idea (innovation may over time lose its relevance), but Latvia is competing with other beneficiary countries for the opportunity to work with Norwegian partners, and those countries that are able to participate in the programme are more likely to benefit from it as soon as possible.

3) The donors' representatives expressed the view that administrative capacity is negatively affected by the long and complex procurement procedures of Programme LV06, which were also applied to fairly low value purchases (e.g., transport and catering services). This is a political factor, because the procedure for the purchase of public procurement and financed by various financial instruments is determined by the legislator, which cannot be changed or influenced by the Programme manager.

4) A secondary issue in the implementation and promotion of Programme LV06 was the lack of capacity of the Latvian institutions (for example, staff turnover, limited human resources). In the view of stakeholders, the competence of the administration in promoting sustainable and innovative commercial activities in Latvia, experience in the commercialisation and implementation of environmentally friendly innovations is paramount in the implementation of a specific programme, as well as sufficient time and human resources to carry out the functions entrusted to it.

5) Human resource turnover in administration and structural reforms during the Programme LV06 could have had a negative impact on institutional continuity and accumulation of acquired experience, resulting in delays in the implementation and promotion of the programme.

6) A significant economic obstacle to some of the newly emerging companies in the field of innovation was the attraction of the own funding. Although the co-financing required in the Small Scale Grant Scheme was only 15% of the project amount, this made it difficult for several projects to commence. Businesses who applied for funding within Programme LV06, reported difficulties in attracting co-financing from commercial banks. Taking into account that the activity of innovation and new businesses is an area of high risk, and, as a result of the economic crisis, commercial banks have become very cautious in providing financing to businesses, this also limited the amount of funding attracted in Programme LV06.

7) The requirement to submit applications in the state language extended the project evaluation process as project applications had to be translated into English. It was not only time-consuming, but also incurred additional costs (thousands of pages long documents had to be translated simultaneously). The donors' representatives believe that it would be advisable to give tenderers the opportunity to submit an application in English in such bilateral projects. However, given that the public administration in Latvia has to comply with the State Language Law, such a recommendation cannot be implemented without burdening the applicants with an administrative burden increasing the requirement to submit applications in both languages.

Activity 7: Analysis of progress of bilateral relations

GTI and Norway Innovation had a significant impact on the development of the relationship between Norway and Latvia and transfer of the good practice of Norway to the Latvian market by involving Norwegian experts. As a result of cooperation between countries the Latvian businesses established contacts with scientific institutions of Norway on the commercialisation of sustainable innovations, and established cooperation with Norwegian businesses. The fact that understanding of Latvian businesses about the importance of sustainable commercial practice has increased as a result of transfer of knowledge is significant

PwC performed analysis of the progress of bilateral relations within the framework of Programme LV06, providing recommendations for the further promotion of bilateral cooperation in the area of environmentally friendly innovations and cooperation of entrepreneurs between Latvia and Norway. At the moment of preparation of the Report, we have received information about 9 activities of the Bilateral Fund, held during the period of time from 20 June 2013 till 27 April 2017. Please see the number of the participants of the Bilateral Fund in Annex 6 to the Report.

Norwegian market participants are actually interested in collaborating with Latvian entrepreneurs.

1) Norwegian Government is interested in forwarding the climate change issue, by involving partners from nearer and further countries. This is one of the reasons why Norwegian entrepreneurs are interested in collaborating with Latvian companies[29].

2) Norway is the 17th largest trade partner and the fifth largest investor of Latvia. In 2016, Norway was the 10th largest Latvian export market; in turn, the Latvian export value was five times larger than the value of the goods imported from Norway[30].

In accordance with the *Guidelines on Promoting Exports of Latvian Goods and Services and Attracting Foreign Investments for 2013-2019* Norway is set as a high priority country for attracting direct investments for the metal working and mechanical engineering, healthcare, woodworking industries and industry of environmentally friendly technologies; a priority country: for the transport and logistics, IT (including the field of global business service) industries[31].

LIDA data show that, in 2016, the total exports of Latvian goods and services to Norway comprised 383.4 million EUR, with export having grown by 0.02%, and import increased by 0.2%, compared to 2015. In 2016, the export of Latvian goods to Norway comprised 237.3 million EUR, which is 2% more than in 2015, but import from Norway - 43.6 million EUR, having decreased by 12%, compared to the year before. At the end of 2016, the accrued direct investments of Norway in Latvia comprised 702.9 million EUR, whereas the accrued direct investments of Latvia in Norway comprised 11.6 million EUR. According to the investments in the share capital of the companies registered in Latvia, at the end of 2016[32].

[29] Source: interview with Agnese Cimdiņa, Embassy of Norway Senior Adviser - Business Relations and EEA / Norway Grants
[30] Ministry of Foreign Affairs (2017): *Bilateral Relations of the Republic of Latvia and Kingdom of Norway*. Available at: http://www.mfa.gov.lv/arpolitika/divpusejas-attiecibas/latvijas-un-norvegijas-attiecibas.
[31] Ministry of Foreign Affairs (2017): *Bilateral Relations of the Republic of Latvia and Kingdom of Norway*. Available at: http://www.mfa.gov.lv/arpolitika/divpusejas-attiecibas/latvijas-un-norvegijas-attiecibas.
[32] LIDA (2017): *Economic Collaboration of Latvia and Norway*. http://eksports.liaa.gov.lv/files/liaa_export/attachments/2017.03_lv_norvegija_ekon_sad.pdf

The export of Latvian goods to Norway tripled in 2016 compared to 2005, despite a constant slight reduction on an annual basis ever since 2013. The export of Latvian services to Norway grew almost five times in 2016 compared to 2005, even though, in 2016, a slight decrease is observed compared to 2015. The accrued direct investments of Norway have grown almost seven times in 2016 compared to 2005, even though a slight decrease has been observed since 2014[33].

It is quite clear that Programme LV06 has facilitated the collaboration of Norway and Latvia, as well as the transfer of knowledge of Norway from the Norwegian market participants to the Latvian market:

1) Entrepreneurs had the possibility to cooperate with Norwegian universities, thus increasing the collaboration and transfer of knowledge. Services ensured by Norwegian entrepreneurs: testing, studies, data analysis, expert consultations.

2) At least five companies, who were participants of the GTI (received pre-incubation and incubation services), have established successful collaboration with Norwegian entrepreneurs: 1. SIA *EPM Rīga,*2. SIA *CENOS*, 3. SIA *Therm Eko,*4. SIA *Linum Color*[34].

3) As a result of the outcomes of the Bilateral Fund activities, Latvian companies received consultations on the part of Norwegian entrepreneurs and experts, *inter alia*, regarding the Norwegian market, as well as specific issues and problems topical for Latvian entrepreneurs have been addressed[35]: Within the scope of the activity *Field test Norway* (organised by GTI), Latvian entrepreneurs visited Norway to exchange experience and receive consultations within the scope of the Programme; LIDA provided the participants with the possibility to take part in the *Innovation Week* activity in Oslo.

4) The understanding of entrepreneurs has been raised with respect to the importance of sustainability in the company, representing the outcome of the transfer of knowledge of Norwegian entrepreneurs and experts [36].

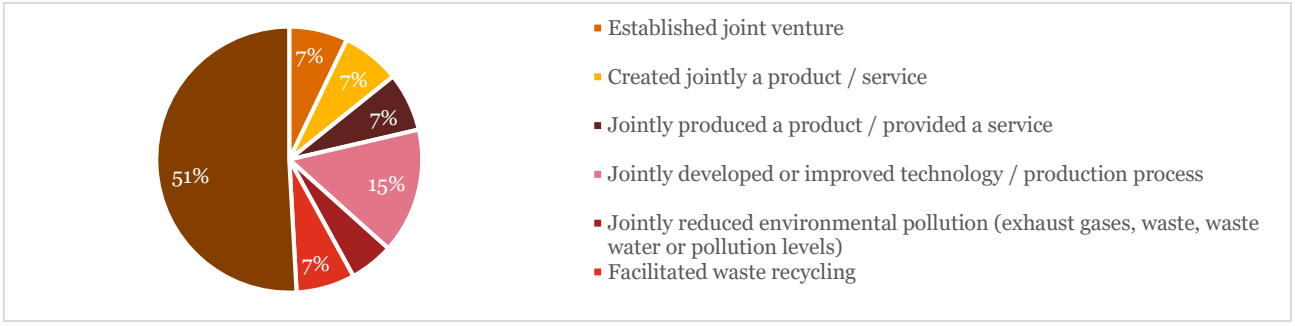
In facilitating and achieving the purposes of bilateral cooperation at the level of projects related to facilitating the collaboration of Norway and Latvia, an important role was played by the Green Technology Incubator (hereinafter - the GTI) and *Innovation Norway*[37]. The GTI was the only incubator created among all the member states of the Norway grant scheme. The involved parties admit that the incubator was created very successfully, with a great team and good outcomes, within the scope whereof collaboration was facilitated with Norwegian entrepreneurs and 15 incubation and pre-incubation programme participants continued their participation in the SGS, where new products have been developed; the Donor State representatives consider the GTI to be the best practice example, which other countries can transpose for incubating environmentally friendly innovations[38]. One of the factors contributing to the success of the GTI was the involvement of Norwegian experts in the activities of the incubator. This facilitated the transposition of the best practice of Norway (cooperation with scientific institutions or Norwegian entrepreneurs, who have helped entrepreneurs with solutions to the issues), especially, with respect to environmentally-friendly innovations, as well as in facilitating the collaboration of Latvian and Norwegian entrepreneurs. The Donor State representatives consider that the GTI operation was successful and hope that the parties involved from Latvia after the completion of Programme LV06, will have the possibility to grant financing for the further operation thereof[39]. It is recommended to create incubators for a longer period of time and it is recommended to continue the operation of the successfully created incubator,

[33] LIDA (2017): *Economic Collaboration of Latvia and Norway*.
http://eksports.liaa.gov.lv/files/liaa_export/attachments/2017.03_lv_norvegija_ekon_sad.pdf
[34] Source: Interview with Matīss Neimanis, Executive Director of the Green Technology Incubator.
[35] Source: Interview with Matīss Neimanis, Executive Director of the Green Technology Incubator.
[36] Source: interview with Agnese Cimdiņa, Embassy of Norway Senior Adviser - Business Relations and EEA / Norway Grants
[37] Source: interview with Angantyr Einarsson, Chief Secretary of the Green Industry Innovation of the Financial Mechanism Office.
[38] Source: interview with Agnese Cimdiņa, Embassy of Norway Senior Adviser - Business Relations and EEA / Norway Grants
[39] Source: interviews with the involved stakeholders.

because 1) it takes a long period of time to create an incubator; 2) an incubator should obtain the trust of the entrepreneurs; 3) the knowledge and experience accrued by the incubator employees are of great importance for the development of new entrepreneurs, but, by terminating its operation, the competent specialists can be lost[40]. Out of 19 participants taking part in the Bilateral Cooperation Activities and answering the PwC questions, 10 participants admitted that the activities of Programme LV06 have facilitated the partnership of programme participants with entrepreneurs from foreign countries. As shown by *36. Figure. Outcomes of the Bilateral Fund Activities. Source: summary of interviews*.

The technology or production process has been created or improved jointly for 15% of the respondents or 2 entrepreneurs, a joint venture has been established, a product or service has been jointly created for 7% or one participant, jointly with the entrepreneur from Norway, and waste recycling was facilitated for 7% or one participant, jointly with an entrepreneur from Norway. 50% or 7 entrepreneurs provided another answer, *inter alia*: 1) contacts of foreign entrepreneurs have been obtained, 2) potential clients have been found, 3) contacts have been established with companies who would be interested in jointly working on merchandising in the future, 4) sales channels have been established: with Norway, the Netherlands, Estonia, 5) good collaboration has been established with an entrepreneur from Norway and the development and introduction of a new product is being discussed, 6) information about the Norwegian market has been obtained, 7) the meeting was held with Norwegian specialists-architects and engineers, who provided answers to the questions.

36. Figure. Outcomes of the Bilateral Fund Activities. Source: summary of interviews.



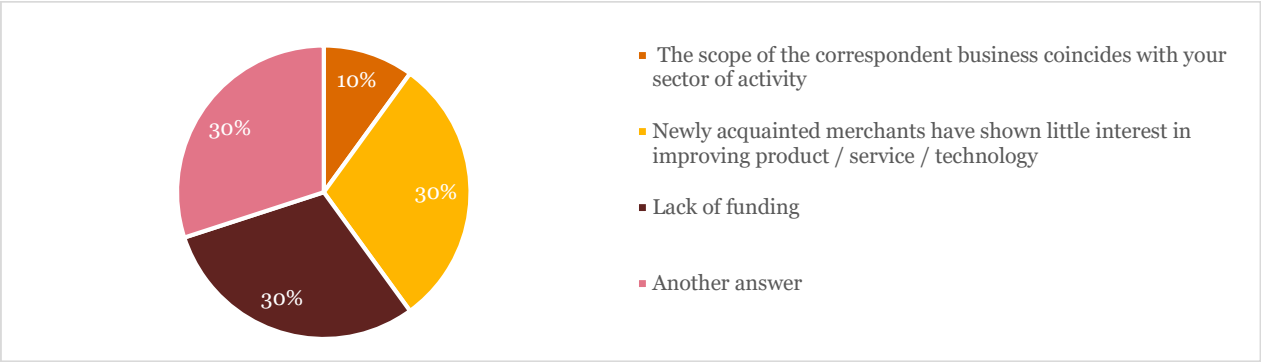
As indicated by 37. Figure. Factors Facilitating the Collaboration. Source: summary of interviews. , the concurrence of the field of activities of the met entrepreneurs with the field of activities of the Latvian entrepreneurs was the reason mentioned most often: 35% or seven respondent.

37. Figure. Factors Facilitating the Collaboration. Source: summary of interviews.

9 respondents out of 19 respondents pointed out that the established relations with Norwegian entrepreneurs did not contribute to the progress of the collaboration. *38. Figure. Reasons why collaboration has not proceeded. Source: summary of interviews.* point out that the main reasons, largely, are the lack of financing or low interest of the met entrepreneurs in the improvement of products, services, technologies or processes.

[40] Source: Torkel Ystgaard, SIVA SF Executive Director.

38. Figure. Reasons why collaboration has not proceeded. Source: summary of interviews.



Participants of the complementary activities expressed observations, which could facilitate the achievement of better outcomes: 1) seeking corresponding entrepreneurs in foreign countries (for example, Norway), who would be interested in the offer of Latvian entrepreneurs, 2) in the case of specific products, repeated meetings are needed, in order to find corresponding entrepreneurs in Norway, 3) more frequent organisation of joint events, to ensure support for the organisation of visits and co-financing of expenses, 4) to give the possibility for the stakeholders to review information about the participants from Norway and to select partners for the organisation of on-site meetings, 5) the option to more frequently use the possibility, with the support of the project, to visit the entrepreneur abroad, engaged in a field similar to those of Latvian entrepreneurs, as this is feasible for both experience exchange and the facilitation of collaboration, 6) the need for Latvian entrepreneurs to prepare and invite the potential cooperation partners themselves.

From the perspective of the organisers, the most productive events were those where Norwegian entrepreneurs - experts in their field were carefully selected, and trained Latvian entrepreneurs in the particular field, provided recommendations with respect to the commencement of activities in the Norwegian market and helped in addressing topical issues or problems of Latvian entrepreneurs. Preparation for these events required the largest resources (both financial and human resources), but they also provided the best outcomes[41].

[41] Source: Interview with Matīss Neimanis, Executive Director of the Green Technology Incubator.

Activity 8: Assessment of the Complementary actions' impact

Complementary actions were paramount in in increasing the effectiveness of the programme implementation

Programme LV06 included complementary actions, for implementing of which the available funding was EUR 50'000. Complimentary activities were eligible if they were organised by the programme operator or another institution (including the agency). The activities of the programme had to involve the programme manager, and the activities should contribute to the objectives of the programme aimed at strengthening cooperation between the other Programme Managers of the Norwegian Financial Mechanism beneficiary countries and similar institutions in the beneficiary countries and Norway and other international organisations. One of the core objectives of the activities was the exchange of experience and good practice related to the implementation of the programme.

The representatives of the Latvian institutions (Ministry of Economics and LIDA) have participated in the following activities for the programme managers in frames of Norwegian Financial Mechanism Programme 2009-2014, Programme LV06 "Innovation in the field of green" production:

1) Norway (28.30.09.2015.);
2) Lithuania (14.-15.04.2016.);
3) Estonia (2.-3.06.2016.)
4) Hungary (26.-29.10.2016.);
5) Norway (13.-17.02.2017.);
6) Bulgaria / Romania (13.07.-17.07.2017.);

The Ministry of Economics and the Latvian Investment and Development Agency have taken delegations from the following countries in addition to the activities of the programme:

1) Igaunija (11.-12.04.2017.);
2) Lietuva (23.-24.11.2017.);

Based on discussions with the programme manager, the major conclusions of PwC are that these activities helped discussing within the managers of other programmes both mistakes and success stories. Experience, knowledge and exchange of good practice resulted in improved implementation of the programme. The implementation mechanism, procedures and content of the activities were considered to be successful. Based on the information gathered during the discussions, PwC's recommendation is to enhance a better planning of activities so that participants have timetables, the content of the next organised activities and the list of participants, and better time management for the programme managers.

Activity 9: Analysis of Publicity Activities

Entrepreneurs, whose activity gained publicity, also achieved the best outcomes - possibility to raise awareness of their brand and products

This section presents analysis on publicity and information distribution activities regarding operations of Programme LV06, as well as presents recommendations for the improvement of activities of publicity and information distribution.

According to *39. figure. Was information on necessary minimum publicity activities when receiving support easily accessible and understandable. Source: summary of interviews*. 70% of respondents (or 50 of 72) information on necessary minimum publicity activities when receiving support has been easily accessible and understandable. For 10% (or 7 of 72) it was not understandable. 1% (1 of 72) provided a different answer, commenting that information was understandable, but consultations with the Latvian Investment and Development Agency (LIDA) were necessary. 19% of respondents (14 of 72) indicated that this question did not apply to them.

39. figure. Was information on necessary minimum publicity activities when receiving support easily accessible and understandable. Source: summary of interviews.

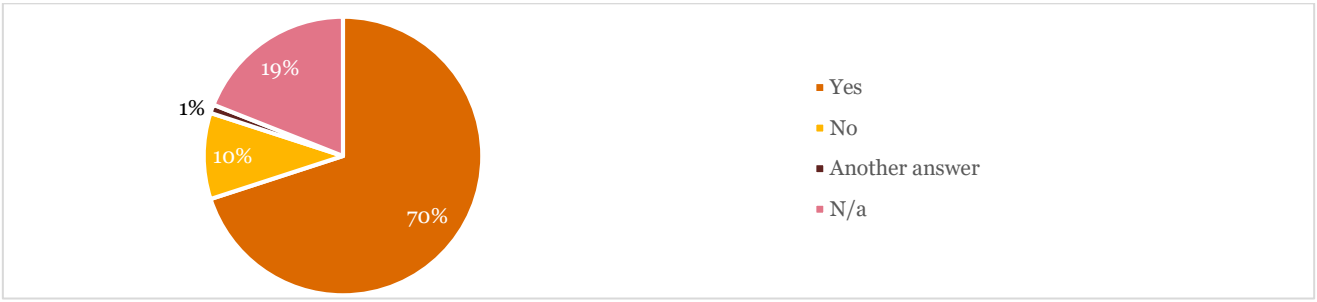
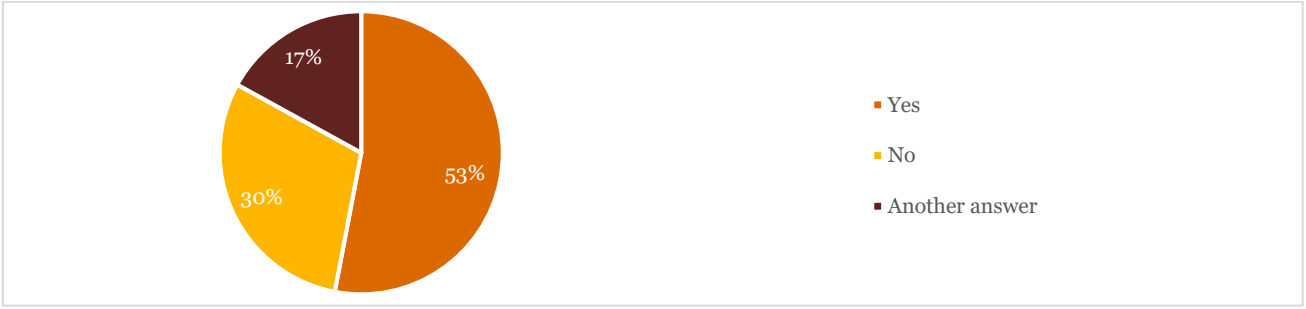


Figure 39 shows that 53% of respondents' (38 of 72) projects have attracted the interest of journalists and/or have had publications in the media. Whereas 30% (22 of 72) of the entrepreneurs' operations have not attracted the interest of media or did not have any publications. 17% of respondents (12 of 72) gave another answer, commenting that: 1) entrepreneurs participated in a festival, 2) there has been a public debate, 3) journalists have shown their interest, but have not made a publication, and 4) journalists have shown insignificant interest.

40. figure. Have the journalists been interested in the project and have there been any publications in the media. Source: summary of interviews.



For those Programme LV06 participants who anticipated deviations from the plan (slow technological development or similar), there were fewer publications. But there are some good examples (for example, *Vizulo* Ltd. and *Polylabs* Ltd.), that used the publicity opportunities[42], thus increasing the awareness of their company.

[42] Source: Interview with Matīss Neimanis, Executive Director of the Green Technology Incubator.

Progress of Programme LV06 is mentioned in three mass media publications: *Dienas Bizness:* In 2013[43], 2015[44], 2016[45] and 2017[46], where in 2013, 2015 and 2016 articles are informative and part of the article of 2017 is devoted to Programme LV06, indicating its positive effect; and *Diena[47],* that has informative content.

In relation to almost every entrepreneur who took part in the SGS project applications or open competition "Support for Green Industry Innovation" projects, had articles in the media regarding their commercial activities; most of them were of an informative character. All articles emphasise that the projects were implemented in cooperation with the Ministry of Economics, the Latvian Investment and Development Agency, the Norwegian Innovation Agency and the Norwegian State Industrial Development Corporation (SIVA). See below some examples of publicity that provide information about sustainable innovations and in a few points indicate the increasing recognition of Latvian entrepreneurs in the global market.

1. In October 2015[48] and March 2016[49], *Dienas Bizness* published informative articles on *Thermeko* Ltd.'s newly developed heat insulation materials, and the article in April 2016 says that the aim of the new material - foam polyurethane - is to "make a turning point in the heat insulation material market". Igor Usilonok, owner and the Chairman of the Board of Thermeko Ltd. adds that "If there were no EU funds, the production would have been abandoned."[50]
2. In January 2016, *Dienas Bizness* published an informational article on "*Technology for the owners and operators of technology communication lines has been created in Latvia*", which describes the technology of energy-efficient communication system developed by *Affoc Solutions* Ltd.[51]
3. In 2015, *Dienas Bizness* published an informative article on the technology developed by *Biokompozītmateriālu Institūts* Ltd. and the Institute of Polymer Materials of Riga Technical University: polymerisable materials made of natural components that are mechanically durable and degrade in the environment.[52]
4. Within the framework of the Festival *Lamp*, *Citintelly Ltd.* presents its world-wide competitive outdoor lighting control and management system.[53]
5. In November 2015, *Dienas Bizness* publishes an informative article on the "Eastern market is interested in rapeseed and tall oil polyols invented in Latvia*"*, focusing on the new sustainable solution of *PolyLabs* Ltd.[54] An informative article on the *PolyLabs* Ltd. product is also published in the *BioPlastics Magazine*

[43]Dienas Bizness (2013): *Scientific ideas will be financed to be turned into business*. Available at: http://www.db.lv/finanses/finanses-zinatnisku-ideju-partapsanu-biznesa-391250
[44]http://www.db.lv/citas-zinas/zalo-tehnologiju-inkubators-aicina-pieteikt-biznesa-idejas-425712
[45]Dienas Bizness (2016): *Another portion of support for green ideas*. Available at: http://www.db.lv/tehnologijas/vel-viena-atbalsta-porcija-zalajam-idejam-449157
[46]Dienas Bizness (2017): *84% of the implementation of projects co-financed by the EEA / Norwegian Financial Instruments have been finished*. Available at: http://www.db.lv/finanses/finansejums/pabeigta-84-proc-eez-norvegijas-finansu-instrumentu-lidzfinanseto-projektu-ieviesana-460958
[47]Diena (2017): *Ten green technology enterprises receive 1.7 million euros for the development of their ideas*. Available at: https://www.diena.lv/raksts/latvija/zinas/desmit-_zalo_-tehnologiju-uznemumi-biznesa-ideju-attistisanai-sanemusi-17-miljonus-eiro-14111345
[48] Dienas Bizness (2015): *Latvian scientists develop innovative heat insulation material*. Available at: http://www.db.lv/citas-zinas/latvijas-zinatnieki-izstrada-inovativu-siltumizolacijas-materialu-439719
[49] Source: Dienas Bizness (2016): *Heat insulation material factory has started operation in Riga*. Available at: http://www.db.lv/razosana/riga-darbibu-uzsakusi-siltumizolacijas-materialu-razotne-446562
[50]Dienas Bizness (2016): *The Aim - to mark a turning point in the heat insulation material market*. Available at: http://www.db.lv/ipasums/buve/merkis-izdarit-paversienu-siltumizolacijas-materialu-tirgu-447980
[51]Dienas Bizness (2016): *Technology for the owners and operators of technology communication lines has been created in Latvia*. Available at: http://www.db.lv/tehnologijas/latvija-rada-tehnologiju-sakaru-liniju-ipasniekiem-un-operatoriem-443381
[52] Dienas Bizness (2015): *A container degrades into compost*. Available at: http://www.db.lv/razosana/lauksaimnieciba/traucins-sadalas-komposta-430703
[53]Festival *Lampa* (2016): *CITINTELLY* Ltd. Available at: https://www.festivalslampa.lv/event/user/lv/659
[54] Dienas Bizness (2015): *Eastern market interested in rapeseed and tall oil polyols invented in Latvia*. Available at: http://www.db.lv/razosana/austrumu-tirgu-interese-par-latvija-izgudroto-rapsu-un-tallu-ellas-poliolu-441609

prior to the industry exhibition in Munich, Germany, where the entrepreneur was planning to participate and introduce the German market to its products.[55]

6. In December 2016, *Latvijas Avīze* published an informative article on the newly developed bioplastic packaging of Nipon Ltd., emphasising that "Latvia can be proud to offer equipment for the production of the latest generation bioplastic packaging".[56]
7. In January 2017, *Dienas Bizness* published an informative article on *PlayGineering Systems* Ltd., which indicates that in cooperation with Green Technology Incubator and Riga Technical University in Latvia, a solution was created for the sports industry to shoot team sports games, to broadcast on the internet, to provide game analytics and video judging[57].
8. In February 2016, Dienas Bizness published an informative article on the *Linum Color Ltd*. product, which could be one of the first in the European market, which is a colourless linseed oil coating for outdoor work with an increased level of protection from the sun's UV rays[58].
9. In December 2016, *Dienas Bizness* published an informative article on innovative cell transplant products for the treatment of injuries in sports horses tendons and ligaments developed in cooperation with *InCellL* Ltd. and the University of Latvia staff[59].
10. In May 2017, *Dienas Bizness* published an informative article on the opening of the *Wasserkabel Baltic ražotne* Ltd. factory, where a product developed in the Ventspils High Technology Park - energy-efficient, environmentally friendly, and human health-friendly and sustainable heating and air-cooling systems will be produced[60].

[55] BioPlastics Magazine (2017): *Polylabs to present innovative, biobased lightweight spray foam at upcoming PSE*. Available at: http://www.bioplasticsmagazine.com/en/news/meldungen/15052017-Polylabs-to-present-new-biobased-spray-formulation-at-PSE.php

[56] Latvija Avīze (2016): *Plastic hybrid - future packaging*. Available at: http://www.la.lv/plastmasas-hibrids-nakotnes-iepakojums

[57]Dienas Bizness (2017): *A solution for the sports industry has been created in Latvia*. Available at: http://www.db.lv/dzives-stils/sports/latvija-radits-risinajums-sporta-industrijai-459077

[58]Dienas Bizness (2016): *Latvian company developed a product that could be one of the first in the European market*. Available at: http://www.db.lv/razosana/latvijas-uznemums-izstradajis-produktu-kas-varetu-but-viens-no-pirmajiem-eiropas-tirgu-445435

[5959]Dienas Bizness (2016): *InCell has finished the development of a cell transplantation product for veterinary medicine*. Available at: http://www.db.lv/citas-zinas/incell-pabeidzis-veterinarmedicinas-sunu-transplantacijas-produkta-izstradi-457334

[60]Dienas Bizness (2017): *Opening of the Wasserkabel Baltic heating and cooling system factory*. Available at: http://www.db.lv/ekonomika/razosana/foto-wasserkabel-baltic-apkures-un-dzesesanas-tehnologijas-razotnes-atklasana-463258

Activity 10: Analysis of horizontal priorities in Programme LV06 and cross-sectional activities

Participants of Programme LV06 noted the necessity to increase economic efficiency in the employment of socially excluded groups of people, for example, providing state financial support or tax relief

This section is devoted to the analysis of horizontal priorities within Programme LV06 and provides recommendations from project participants.

Within the framework of the financial instrument, there are three topical horizontal priorities: good management, sustainable development and gender equality. Good governance has 6 main principles: it involves broad engagement and is inclusive, understandable, transparent, responsive, effective, efficient, and is in accordance with the law. Good governance is the basis for the whole process of economic and social development of the country, therefore it is irrevocably linked to the objectives of financial instruments. At the discretion of Donor country, the main element that threatens good management is corruption, which hinders business growth. The implementation of Programme LV06 should be transparent and open at all stages of the programme and there is an absolute requirement that projects are not contrary to the principles of good management. It is important to mention that the entrepreneur is responsible for the observance of the principles of good management, but their checking and inspection is carried out by the programme operatorLIDA[47].

Sustainable development is aimed at the provision of a long-term vision. Measures that need to be carried out to meet existing needs may still be short-term goals, but should, in addition, include a long-term perspective. Within Programme LV06, sustainable development coincides with the reduction of environmental impact and improvement of infrastructure. The programme operatorof LIDA already specifies the entrepreneur's objectives of reducing the impact on the environment at the stage of examination of the application and conducts the inspection of the set goals at the end of the programme. Sustainability involves not only environmental impacts, but also social and economic considerations. Economic considerations include the positive effects of projects on the national economy, for example, the creation of new jobs, thus increasing the state budget from the revenue from tax, or the positive impact on the business sector as a whole, as well as other activities related to the improvement of the economic situation. The social dimension involves solving various social problems through the implementation of the project. Social considerations include the creation of social capital, fight against poverty and social exclusion, access to the development of skills and the needs of different social groups, taking into account gender, disability, ethnic origin, age, sexual orientation and religious affiliation. The social and economic aspect is also assessed by the programme operatorat the time of application and finalisation of the LIDA project[47].

Finally, gender equality ensures equal rights and opportunities for men and women within the framework of the programme[47].

41. Figure. Analysis of the horizontal priorities within Programme LV06. Source: summary of interviews. shows that 49% or 37 respondents answered that Programme LV06 has generally not raised greater awareness of the importance of horizontal priorities[61] in the company.

But 33% or 24 respondents answered that receiving support has contributed to a greater understanding of the importance of horizontal priorities in the company, adding that:

1) awareness of the inclusion of different social groups in the labour market (for example, involvement of young people) has increased,
2) support for horizontal solutions to problems has increased,
3) representatives of the risk group subject to exclusion from the labour market - young people under the age of 24 were employed at the project,
4) now people with disabilities have the opportunity to work at the company,

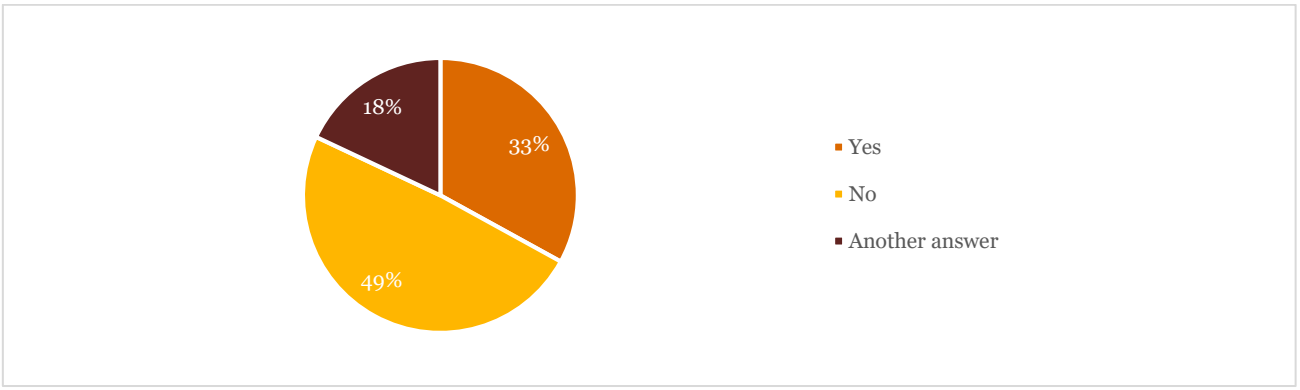
[61]Environmental sustainability, gender equality, employment of risk groups subject to social exclusion.
[47] Terms for the implementation of EEA and Norwegian Financial Instrument 2009-2014, Annex 9: Manual of the programme operator.

5) a prototype was created, considering the possibilities for people with disabilities to work with the prototype,
6) the project created an opportunity for a person at pension age to keep a job and not retire,
7) the company hired people who were unemployed,
8) several women, students and people with disabilities were recruited.
9) the company takes care of gender equality by providing jobs for engineers and specialists of both genders.

One company works with clients, many of whom have disabilities - making it possible to better understand the needs of such people and the company's ability to help them.

The entrepreneurs who chose "other", commented that: 1) the company has not yet been established, the aspect of horizontal priorities is not applicable, 2) the support insignificantly contributed to a greater understanding 3) it already had an understanding of the importance of horizontal priorities.

41. Figure. Analysis of the horizontal priorities within Programme LV06. Source: summary of interviews.



Information and data sources used

5. Table. Overview of the used information and data sources.

Nr.p.k.	*Informācijas un datu avots*
1.	Agreements between the European Commission and the donor countries, available: http://www.eeagrants.lv/?id=50.
2.	Memorandum of Understanding on the implementation of the European Economic Area Financial Mechanism 2009-2014, concluded between the Republic of Latvia and Iceland, the Principality of Liechtenstein, the Kingdom of Norway and approved by the Cabinet of Ministers March 29, 2011 Regulations No. 251 "On the Republic of Latvia and Iceland , Principality of Liechtenstein and the Kingdom of Norway on the implementation of the European Economic Area instrument 2009-2014, available: *http://www.eeagrants.lv/?id=50*.
3.	Memorandum of Understanding on the implementation of the Norwegian Financial Mechanism 2009-2014 concluded between the Republic of Latvia and the Kingdom of Norway and approved by the Cabinet of Ministers March 29, 2011 Regulations No.252 "On Memorandum of Understanding between the Republic of Latvia and the Kingdom of Norway on the Norwegian Financial Mechanism implementation in 2009-2014, available: *http://www.eeagrants.lv/?id=50*.
4.	Rules of the European Economic Area Financial Mechanism Committee adopted on January 13, 2011 on the implementation of the European Economic Area Financial Mechanism 2009-2014, available: *http://www.eeagrants.lv/?id=50*.
5.	Regulations of the Norwegian Ministry of Foreign Affairs on February 11, 2011 on the implementation of the Norwegian Financial Mechanism 2009-2014, available: *http://www.eeagrants.lv/?id=50*.
6.	European Economic Area Financial Mechanism and Norwegian Financial Mechanism 2009-2014. Annual Management Law
7.	Guidelines issued by the Financial Mechanism Bureau and approved by the Norwegian Ministry of Foreign Affairs and the European Economic Area Committee on the implementation of the European Economic Area Financial Mechanism and the Norwegian Financial Mechanism 2009-2014.
8.	Cabinet of Ministers Regulation No. 67 of January 29, 2013, Regulations on Supervision of the European Economic Area Financial Mechanism and the Norwegian Financial Mechanism 2009-2014.
9.	Cabinet of Ministers Regulation No. 181 of 2 April 2013 "Procedure for the implementation of the Norwegian Financial Mechanism 2009-2014 Programme" Innovation in green "production".
10.	Cabinet of Ministers October 9, 2012 Regulations No. 694 "Rules for the Management of the European Economic Area Financial Mechanism and the Norwegian Financial Mechanism 2009-2014".
11.	Cabinet of Ministers Regulation No. 1442 of 10 December 2013 "Program of the Norwegian Financial Mechanism Program 2009-2014" LV06 "Innovations in the field of green" "the procedure for the implementation of the project competition" was opened "
12.	Informative Reports on the Implementation of EU Structural Funds and the Cohesion Fund (for all programming periods), the European Economic Area Financial Mechanism, the Norwegian Financial Mechanism and the Latvian-Swiss Cooperation Programmes, available: *http://www.esfondi.lv/zinojumi-Ministru-kabinetam*.
13.	Annex 1 of the European Commission (EC) No.800 / 2008 for the definition of small (micro), small and medium-sized enterprises. Available: *http://www.liaa.gov.lv/lv/es-fondi/noderiga-informacija/mvk-statusa-noteiksana*
	Implementation of a predetermined project
14.	Contract for the implementation of a predetermined project No. DL-2014/9 between LIDA, EM and Green Industry Innovation Centre Ltd, updated on 08/29/2014. Available: *http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/ieprieks-noteiktais-projekts*
15.	Contract Nr. DL-2014/9 on the implementation of a predefined project Annex 6: "Procedures by which the Incubator provides an opinion on the submission of applications and business plans by a submitter of a SGS"

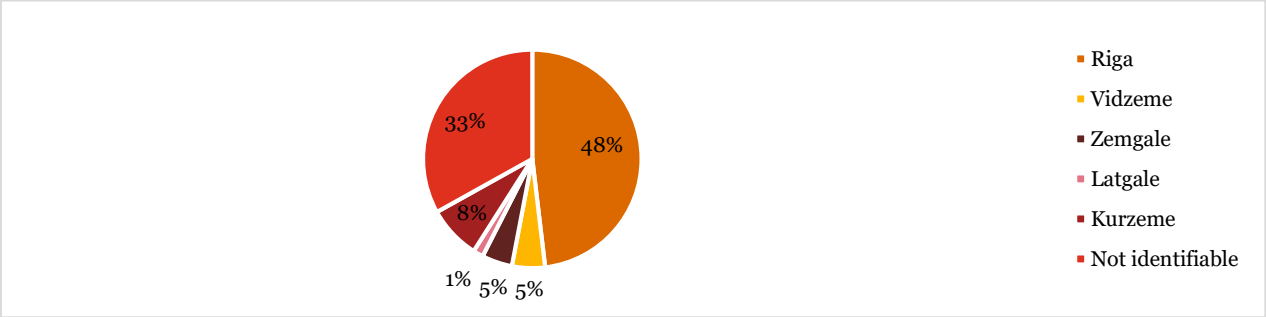
Nr.p.k.	Informācijas un datu avots
	Annex 7: "Procedure for the Provision of Incubator for Pre-Incubation Fund Assistance." Annex 8: "Pre-Incubation Service Agreement No. ... " Annex 9: Methodology for selection and support of pre-Incubation fund recipients. Annex 10: "Methodology for Submission of a Proposal for a SGS (NAGS) Project Applicant and Business Plans" Available: *http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/ieprieks-noteiktais-projekts*
16.	List of approved pre-incubation business ideas and contracts. Available: *http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/ieprieks-noteiktais-projekts*
17.	Information about the contract with *Green Industry Innovation Centre* Ltd. Available: *http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/ieprieks-noteiktais-projekts*
18.	Methodology for completion and submission of the closure or interim report for the green project "Green Industry" co-financed by the Norwegian Financial Mechanism 2009-2014 for a predefined project. Available: *http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/ieprieks-noteiktais-projekts*
	Small Scheme Grant Scheme
19.	LIDA Internal Rules No. ORG-INA_IKN_2015 / 408 of June 12, 2015, Procedure for Evaluation of the Application Form for the Third Selection Round of a SGS for the Norwegian Financial Instrument for the Promotion of Innovation in the Field of Green Industry, 2009, p. 57. Available: *http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/neliela-apjoma-grantu-shema*
20.	Methodology for filling in the Norwegian Financial Instrument Application Form for Support of a SGS, updated on 09/05/2014, on p. 10. Available: *http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/neliela-apjoma-grantu-shema*
21.	Methodology for Completing / Interim Reporting and Submission in the Green "Production" area of the Norwegian Financial Instrument for the period 2009-2014 for SGS projects. Available: *http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/neliela-apjoma-grantu-shema*
22.	Guidelines of the Managing Authority of July 31, 2015 "Criteria for extending the project implementation period in the programs of the European Economic Area Financial Mechanism and the Norwegian Financial Mechanism (hereinafter - EEA / NOR FI) for the 2009-2014 period". Available: *http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/neliela-apjoma-grantu-shema*
	Open call tender
23.	Norwegian Financial Instrument Phase One Project Application Form and Methodology for Completing the Support of an Open Tender, updated on January 21, 2014, on page 32. Available: http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/atklatais-konkurss/1-karta
24.	Financing / Interim Report Filling and Submission Methodology In the framework of the program "Innovation in green" production co-financed by the Norwegian Financial Mechanism 2009-2014, an "Support for the introduction of green technologies for production" projects, updated on 09/18/2014, to 9 pp. Available: http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/atklatais-konkurss/1-karta
25.	The procedure for evaluating the application for a competition project application, updated on 02.04.2014, available in the program "Innovation in green" production co-financed by the Norwegian Financial Mechanism 2009-2014, available: http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/atklatais-konkurss/1-karta
26.	Norwegian Financial Instrument 2nd round project application form and filling methodology in support of open competition, current on 27.11.2014, p. 23. Available: http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/atklatais-konkurss/2-karta
27.	The procedure for the evaluation of the project application submitted by the second round of the tender, updated on 02.09.2015, for the program "Innovation in green", co-financed by the Norwegian Financial Mechanism 2009-2014, available: http://www.liaa.gov.lv/lv/fondi/norvegijas-finansu-instruments/atklatais-konkurss/2-karta
	Other
28.	Data from the State Revenue Service on the ownership of the company by the administrative territorial unit The data of the Lursoft data reused by the Enterprise Register of the Republic of

Nr.p.k.	Informācijas un datu avots
	Latvia regarding enterprises registered in the Republic of Latvia - companies, associations, foundations and other legal entities.
29.	Information about the Register of Enterprises of the Republic of Latvia used by Lursoft data on companies registered in the Republic of Latvia - companies, associations, foundations and other legal entities.
	Documents, reports, reports and other information issued and presented by the Latvian Investment and Development Agency
30.	Report on missions in Bulgaria (11-14 June 2017) and Romania (14-16 June 2017).
31.	Report on a mission in Hungary (26-30 October 2016).
32.	A report on a trip in Estonia (2 to 3 June 2016).
33.	Report on travel abroad Lithuania (14-15 April 2016).
34.	Summary of activities of the program LV06 Bilateral fund at the Programme LV06 for 2013-2016.
35.	Summary of the new jobs, environmental impact and horizontal priorities created by program LV06 by program parts.
36.	The list of LV06 participants in the activities of the Bilateral fund at the Programme LV06 and the eligible funding for each participant.
37.	Status report of program LV06 projects by program parts.
38.	List of LV06 participants in a small scale grant scheme, open competition and a predefined project.
39.	List and contact details of project applications rejected by program LV06.
40.	List of cooperation partners of LV06 participants.
41.	Contact details of LV06 participants and the dates of conclusion of the contract.
42.	Cumulative cumulative cost accounting for program participants LV06 predefined project participants by cost type.
43.	Participants of the program LV06 Bilateral fund at the Programme LV06 questionnaires about participation in the activities.
44.	Program activity LV06 Bilateral fund at the Programme LV06 activity plan for 2015 and 2016.
45.	The funding of DeMinim's program LV06 for SGSs and predetermined project participants.
46.	The timetable for funding for the participants in the Lv06 Program is divided into months and years by program parts. Project financing of the program Lv06 against actual financing and co-financing of the beneficiary.
47.	Documents submitted by the participants of the Lv06 Program, LIAA, expert assessment of the documents submitted by the participants, final evaluation of the project.
	Theoretical and empirical literature
48.	OECD Economic Survey of Latvia. September 2017, on page 57. Available: https://www.oecd.org/economy/surveys/Latvia-2017-OECD-economic-survey-overview.pdf
49.	"Enterprise Support - an eXploratory study using counterfactual methods on available data from Germany", available: http://ec.europa.eu/regional_policy/lv/information/publications/evaluations/2010/enterprise-support-an-eXploratory-study-using-counterfactual-methods-on-available-data-from-germany
50.	""What is the growth potential of green innovation? An assessment of EU climate policy options, pieejams: ec.europa.eu/economy_finance/publications/.../pdf/ecp413_en.pdf

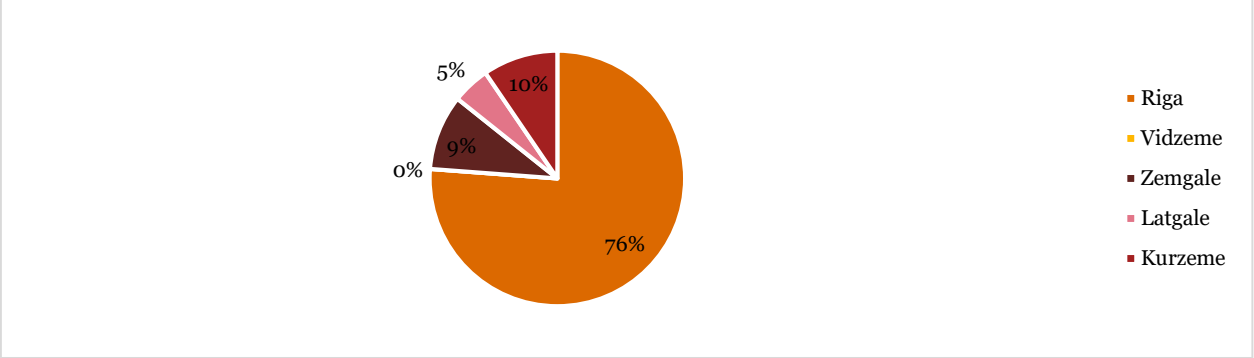
1. Annex - Statistical data broken down by parts of the Program LV06

1.1. Businesses belonging to a specific region of Latvia after the number of LV06 program participants

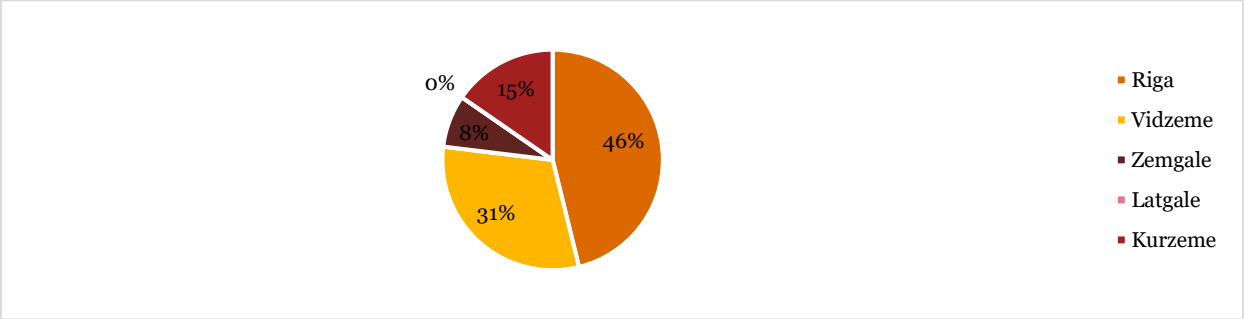
42. Figure. Breakdown of LV06 Program participants by region. Source: LIAA, Lursoft. PwC analysis.



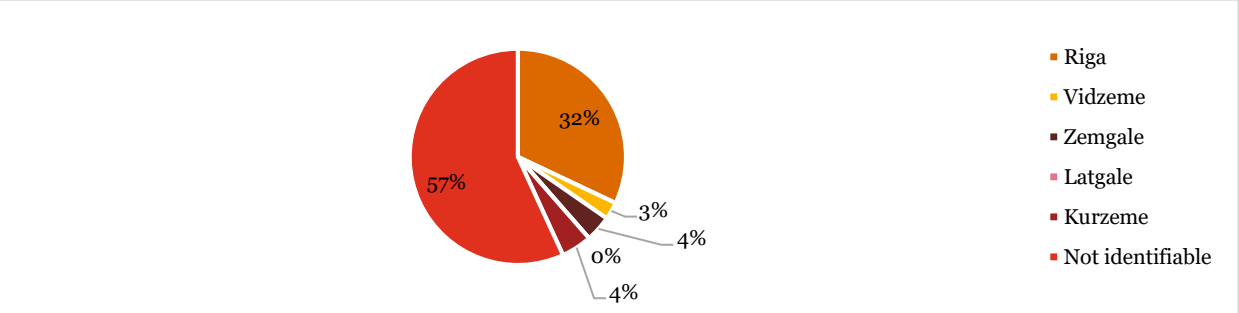
43. Figure. Breakdown of participants in a small scale grant by region. Source: LIAA, Lursoft. PwC analysis.



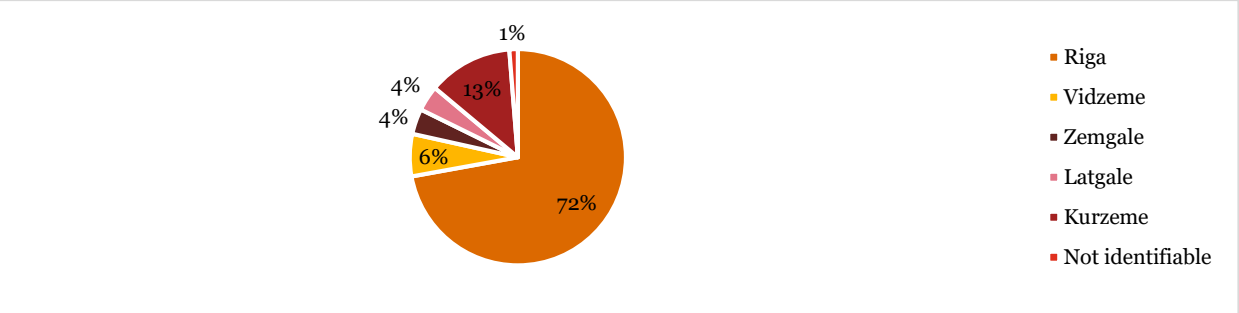
44. Figure. Open competition "Support for the introduction of green technologies in production" by region. Source: LIAA, Lursoft. PwC analysis.



45. Figure The breakdown of the predetermined project participants by number in regions. Source: LIAA, Lursoft. PwC analysis.

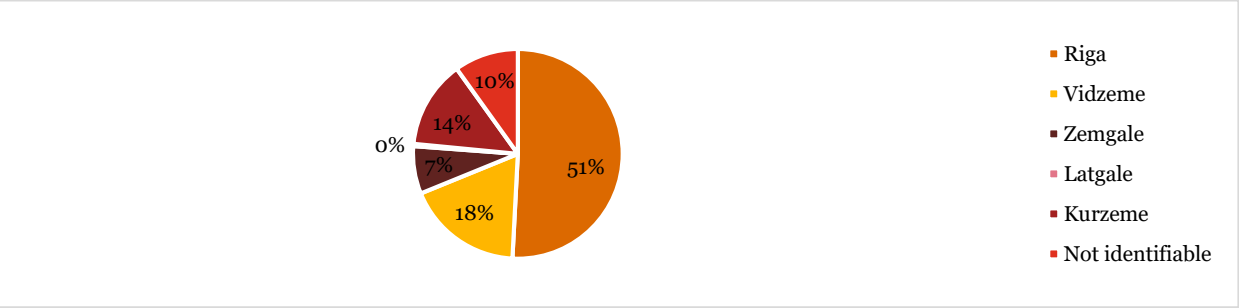


46. Figure. The division of the Bilateral fund at the Programme LV06 by number in region. Source: LIAA, Lursoft. PwC analysis.

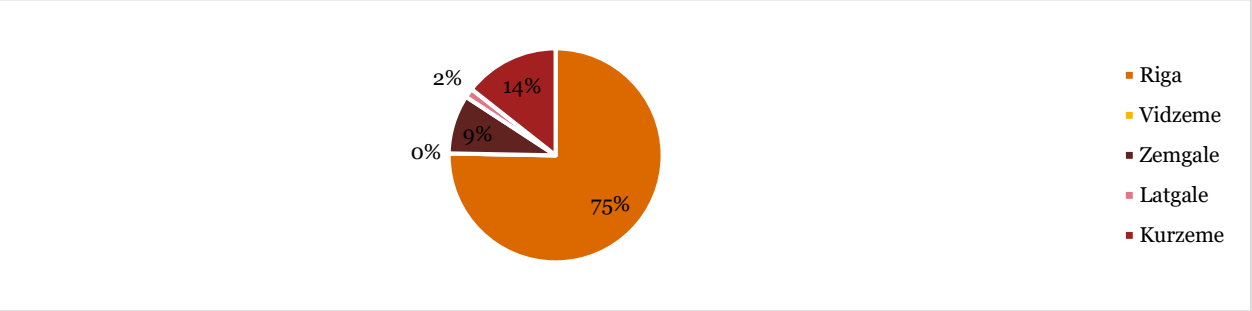


The amount of funding received by the program

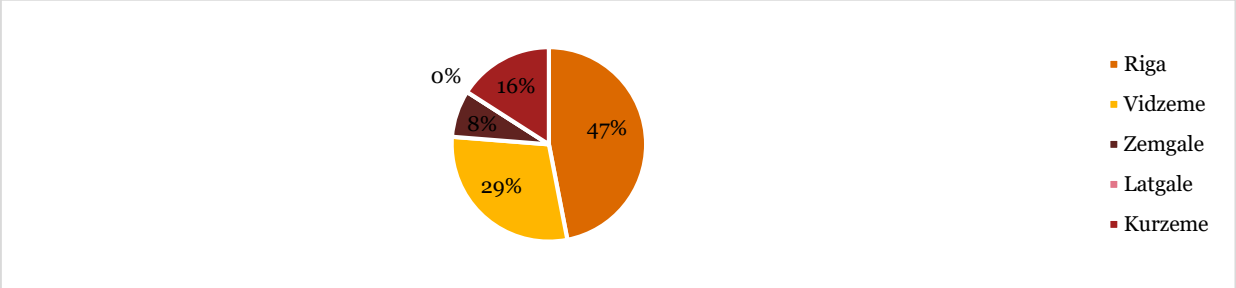
47. Figure. Breakdown of Program LV06 participants by region by received public funding. Source: LIAA, Lursoft. PwC analysis.



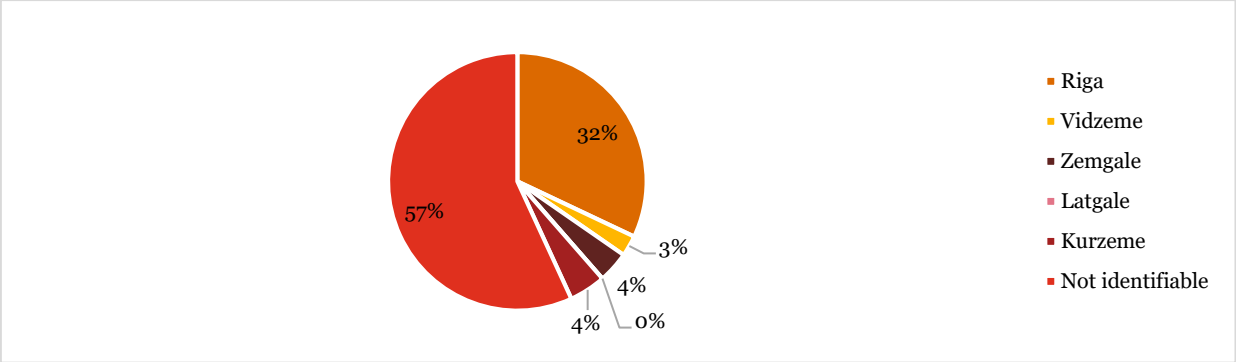
48. Figure. Breakdown of participants in a SGS by region's received public funding. Source: LIAA, Lursoft. PwC analysis.



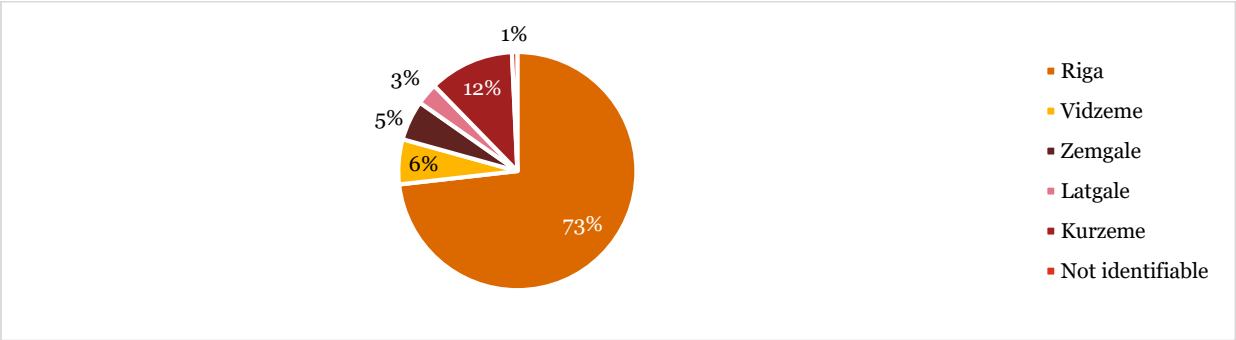
49. Figure. Open competition "Support for the introduction of green" technologies in production "division of the participants according to received public financing by regions. Source: LIAA, Lursoft. PwC analysis.



50. Figure .Breakdown of predetermined project participants according to received public funding by region. Source: LIAA, Lursoft. PwC analysis.



51. Figure. Division of participants of the Bilateral fund at the Programme LV06 according to received public financing by regions. Source: LIAA, Lursoft. PwC analysis.



1.2. Division of business by field of activity

In the small scale grant scheme and in the Open Application for a call for proposals "Support for the introduction of green" technologies in production "NACE codes were used as received from LIDA. The project (including pre-incubation and incubation fund) and the bilateral co-operation fund have been used from the UR for the above project.

6. Table LV06 Programs mercharnt devision by NACE code. Source: LIAA, Lursoft. PwC analysis.

NACE code	Amount of Programme LV06 participants	Amount of SGSprticipants	Amount of Open Call participants	Amount of Pre-incubation and incubation fund participants	Amount of Bilateral fund participants
Other research and experimental development in natural sciences and engineering	10	1	-	5	4
Consulting in entrepreneurship and management	9	-	-	2	7

NACE code	Amount of Programme LV06 participants	Amount of SGSprticipants	Amount of Open Call participants	Amount of Pre-incubation and incubation fund participants	Amount of Bilateral fund participants
Engineering activities and related technical consultancy	8	2	-	5	1
Computer programming	8	-	-	5	3
Manufacture of other organic basic chemicals	6	2	-	1	3
Other information technology and computer services	6	2	-	1	3
Research and experimental development in biotechnology	6	2	-	2	2
Manufacture of other electrical equipment	6	-	-	2	4
Data processing, maintenance and related activities	4	-	-	2	2
Manufacture of builders' carpentry and joinery	4	-	-	-	4
Manufacture of plastic packaging	3	1	-	1	1
Manufacture of other fabricated metal products	3	1	-	2	-
Manufacture of other products	3	-	-	3	-
Manufacture of bicycles and wheelchairs	3	-	-	2	1
Manufacture of computers and peripheral equipment	3	-	-	2	1
Manufacture of aircraft, spacecraft and related machinery	3	-	-	1	2
Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	3	-	3	-	-
Manufacture of other plastic products	2	1	1	-	-
Manufacture of instruments and appliances for measuring, testing, testing and navigation	2	1	-	-	1
Construction of residential and non-residential buildings	2	1	-	-	1
Manufacture of paints, varnishes and similar coatings, printing ink and mastics	2	1	-	1	-
Manufacture of other chemical products	2	1	-	1	-
Manufacture of other transport equipment	2	1	-	1	-
Wholesale of wood, construction materials and sanitary equipment	2	-	-	1	1
Wholesale of other machinery and equipment	2	-	-	1	1
Manufacture of games and toys	2	-	-	1	1
Other professional, scientific and technical services	2	-	-	1	1
Retail via mail or Internet shops	2	-	-	1	1
Computer consultancy issues	2	-	-	-	2
Waste treatment and disposal	2	-	-	-	2
Manufacture of other general-purpose machinery	2	-	-	-	2
Electricity supply	2	-	-	-	2
Manufacture of other rubber products	2	-	-	-	2
Other telecommunication services	1	1	-	-	-
Other research and experimental development on natural sciences and engineering	1	1	-	-	-
Manufacture of livestock feed	1	1	-	-	-
Manufacture of lighting equipment	1	1	-	-	-
Manufacture of electric motors, generators and transformers	1	-	-	1	-
Automotive manufacturing	1	-	-	1	-
Manufacture of fertilizers and nitrogen compounds	1	-	-	1	-
Manufacture of other inorganic basic chemicals	1	-	-	1	-
Other telecommunications services	1	-	-	1	-
Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	1	-	-	1	-
Manufacture of knitted socks	1	-	-	1	-
Accounting, bookkeeping and auditing activities	1	-	-	1	-
Other specialized construction activities	1	-	-	1	-

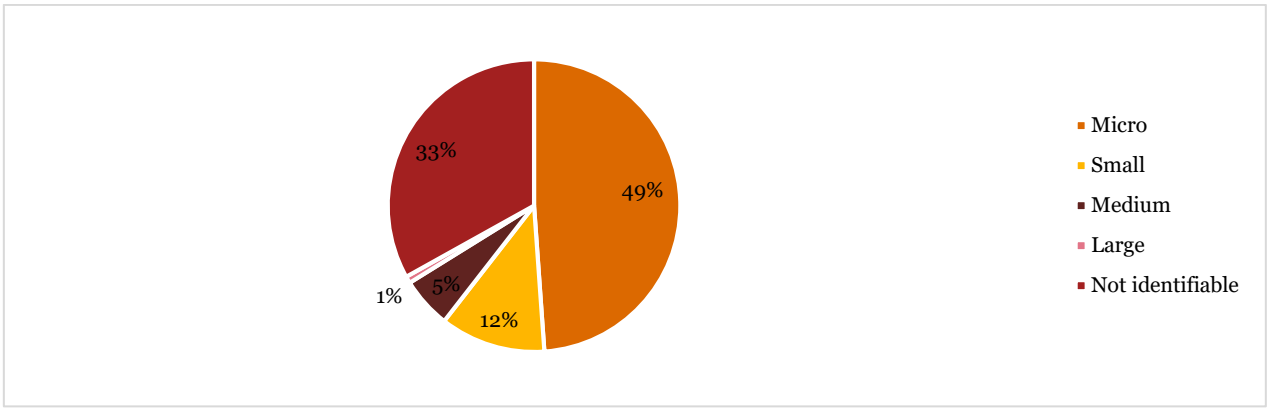
NACE code	Amount of Programme LV06 participants	Amount of SGSprticipants	Amount of Open Call participants	Amount of Pre-incubation and incubation fund participants	Amount of Bilateral fund participants
Other retail outlets, stalls and markets	1	-	-	1	-
Accounting, bookkeeping, auditing and auditing services	1	-	-	1	-
Manufacture of musical instruments	1	-	-	1	-
Agents specialized in the sale of other particular products	1	-	-	1	-
Manufacture of consumer electronics	1	-	-	1	-
Manufacture of grain mill products	1	-	-	1	-
Manufacture of sports goods	1	-	-	1	-
Specialized medical practice	1	-	-	1	-
Manufacture of other furniture	1	-	-	1	-
Artistic creativity	1	-	-	1	-
Advertising agencies activities	1	-	-	1	-
Manage your computer equipment activity	1	-	-	1	-
Glass fiber production	1	-	1	-	-
Manufacture of plastic packaging	1	-	1	-	-
Manufacture of lighting equipment	1	-	1	-	-
Manufacture of other non-metallic mineral products	1	-	1	-	-
Waste treatment and disposal (except hazardous waste)	1	-	1	-	-
Repair of metal constructions and their components	1	-	1	-	-
Road and motorway construction	1	-	1	-	-
Washing and (chemical) cleaning of textiles and fur	1	-	1	-	-
Manufacture of plastic building elements	1	-	1	-	-
Non-specialized wholesale trade	1	-	-	-	1
Other engineering systems	1	-	-	-	1
Manufacture of paper and paperboard	1	-	-	-	1
Recycling of sorted materials	1	-	-	-	1
Sanitation and other waste management services	1	-	-	-	1
Wholesale of mining, construction and civil engineering machinery	1	-	-	-	1
Manufacture of other products of wood	1	-	-	-	1
Wholesale of electronic and telecommunications equipment and parts	1	-	-	-	1
Electricity production	1	-	-	-	1
Corrugated paper and paperboard production	1	-	-	-	1
Transitional wood products	1	-	-	-	1
Other specialized construction work not elsewhere classified	1	-	-	-	1
Car maintenance and repair	1	-	-	-	1
Manufacture of paints, varnishes and similar coatings, printing ink	1	-	-	-	1
Textile weaving	1	-	-	-	1
Installation of wiring	1	-	-	-	1
Public Relations and Communication Management Services	1	-	-	-	1
Manufacture of pharmaceutical preparations	1	-	-	-	1
Manufacture of electric domestic appliances	1	-	-	-	1
Garbage collection	1	-	-	-	1
Plumbing, heating and air conditioning installation	1	-	-	-	1
Freight transport by road	1	-	-	-	1
Aluminum production	1	-	-	-	1 z

1.3. Distribution of businesses by company status

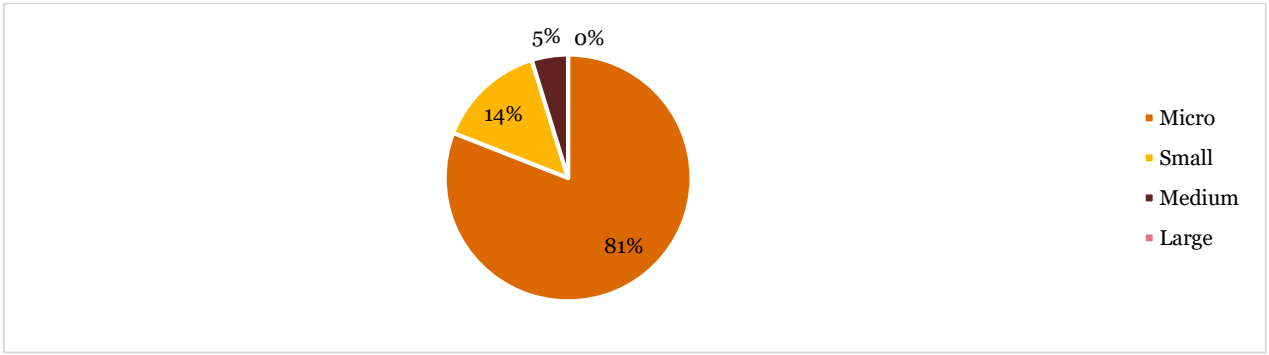
By the number of participants in the program

We got information from the LIDA and UR sources and determined the status of businesses according to LIAA practice

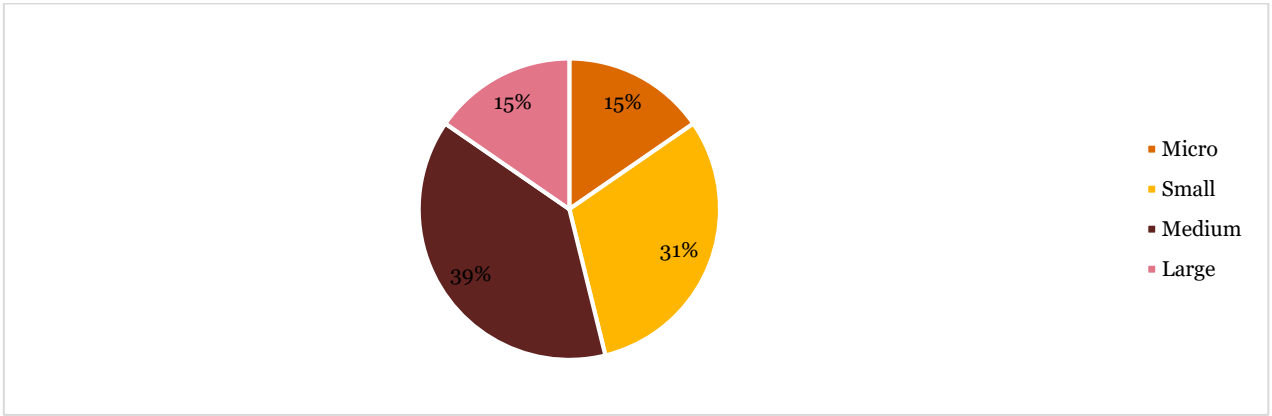
52. Figure. Breakdown of LV06 participants by number by status group. Source: LIAA, Lursoft. PwC analysis.



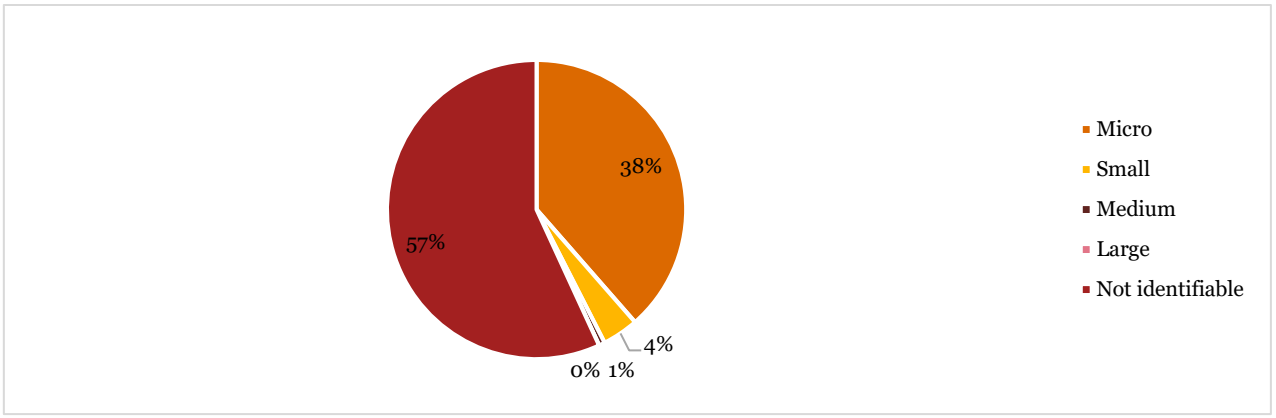
53. Figure. Breakdown of participants in a small scale grant scheme by number by status group. Source: LIAA, Lursoft. PwC analysis.



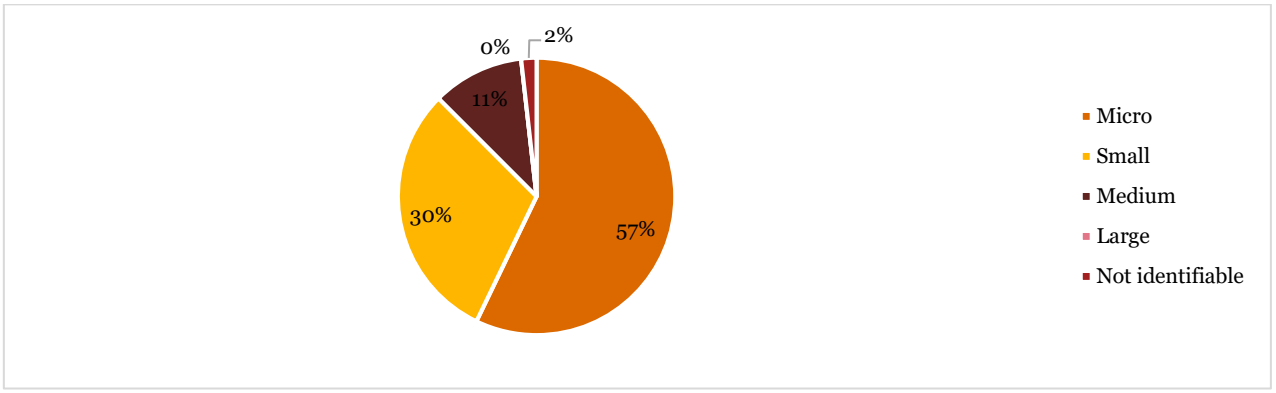
54. Figure. Breakdown of participants in Open Call by number by status group. Source: LIAA, Lursoft. PwC analysis.



55. Figure Breakdown of predetermined project participants by number by status group. Source: LIAA, Lursoft. PwC analysis.

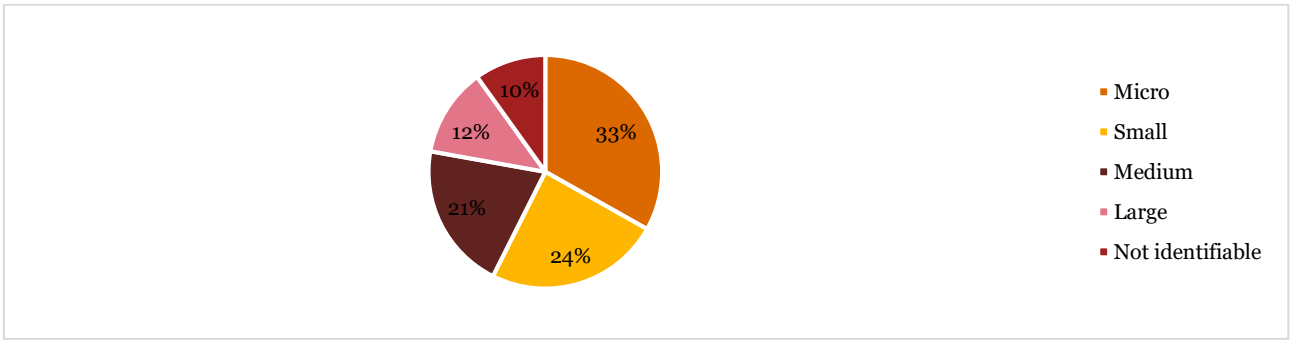


56. Figure Division of participants in the Bilateral fund at the Programme LV06 by number by status group. Source: LIAA, Lursoft. PwC analysis.

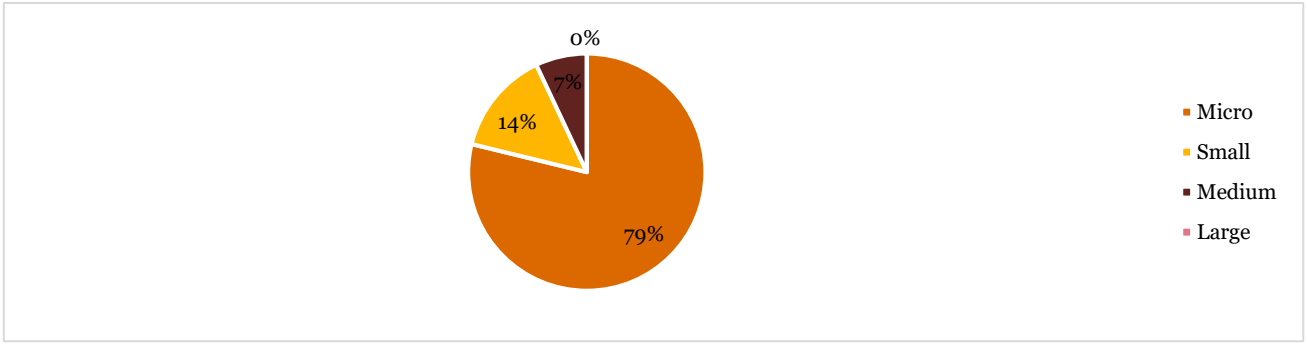


The amount of funding received by the program

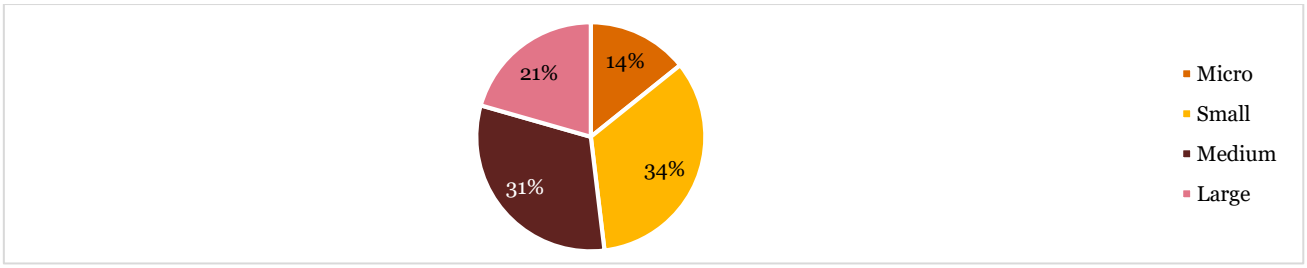
57. Figure. Breakdown of program LV06 participants by the amount of public funding received by status groups. Source: LIAA, Lursoft. PwC analysis.



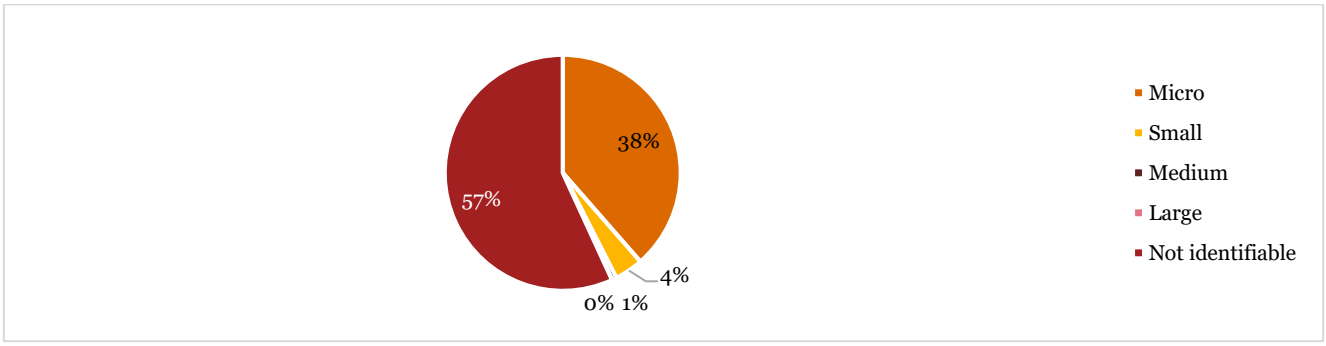
58. Figure. Breakdown of participants in a small scale grant scheme after receiving the amount of public funding by status group. Source: LIAA, Lursoft. PwC analysis.



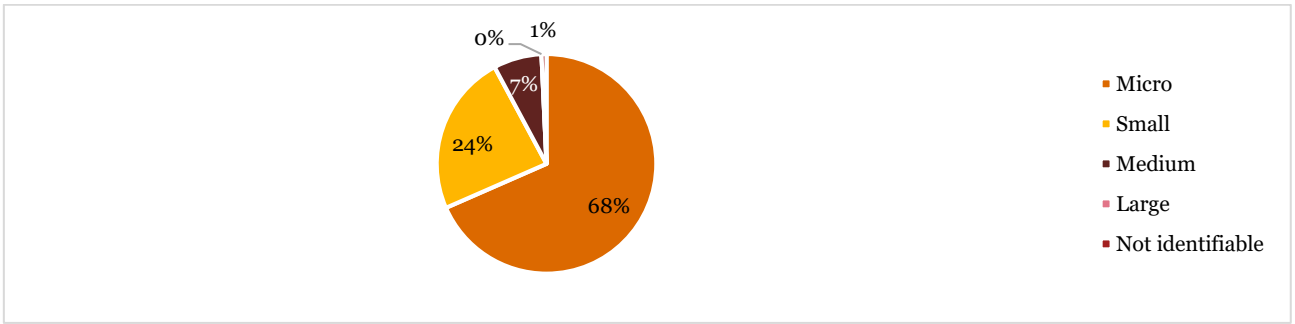
59. Figure., Breakdown of Open Call by the amount of public funding received by status groups. Source: LIAA, Lursoft. PwC analysis.



60. Figure. Breakdown of predetermined project participants by the amount of public funding received by status groups. Source: LIAA, Lursoft. PwC analysis.



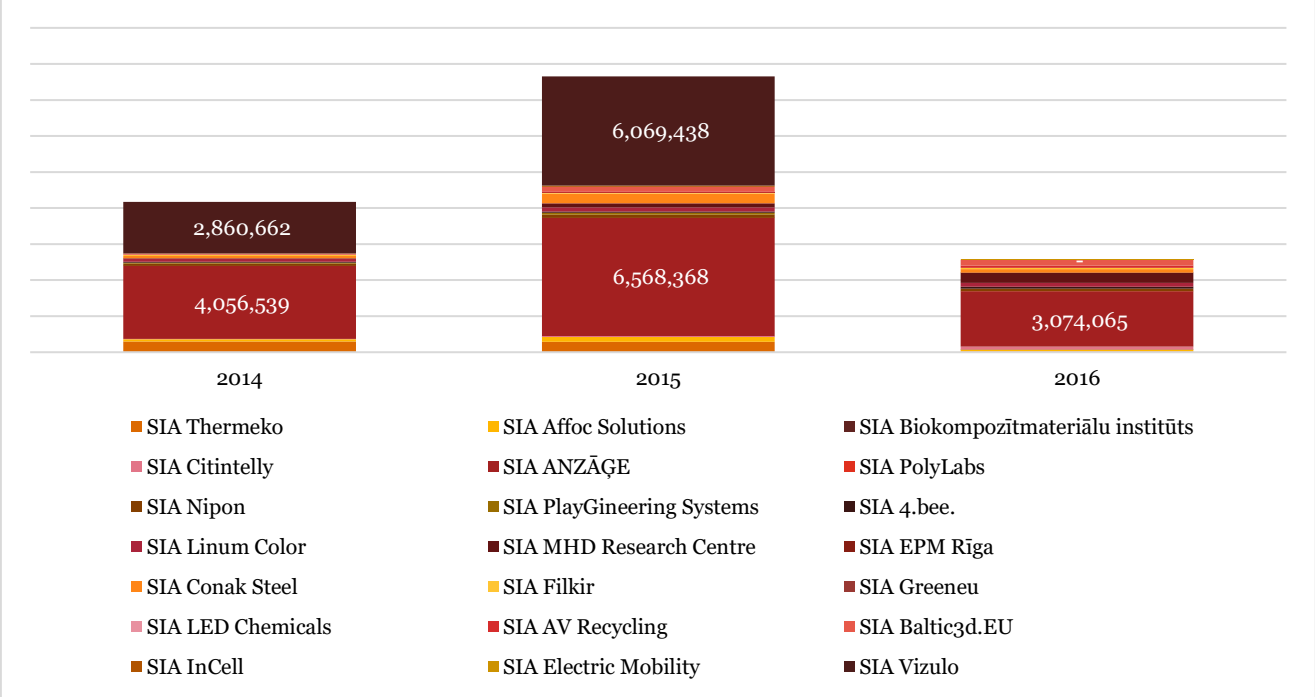
61. Figure, Breakdown of members of the Bilateral fund at the Programme LV06 by the amount of public funding received by status groups. Source: LIAA, Lursoft. PwC analysis.



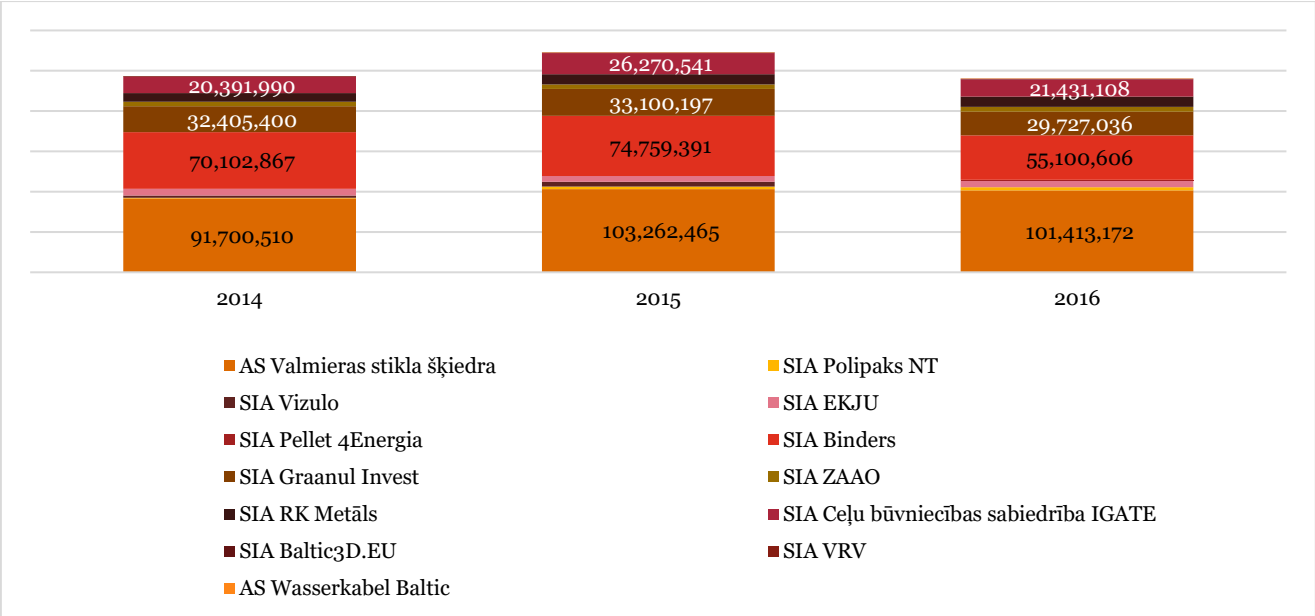
1.4. Cumulated Turnover Estimates and Annual Growth Analysis

Turnover growth

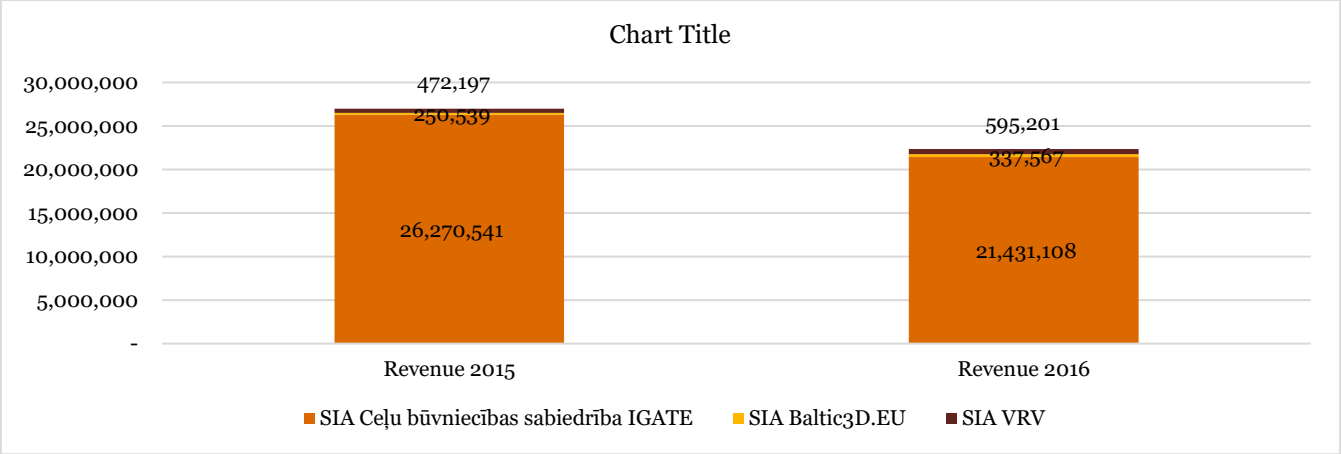
62. Figure. Annual changes in turnover of members of a small volume scheme. Source: Lursoft. PwC analysis.



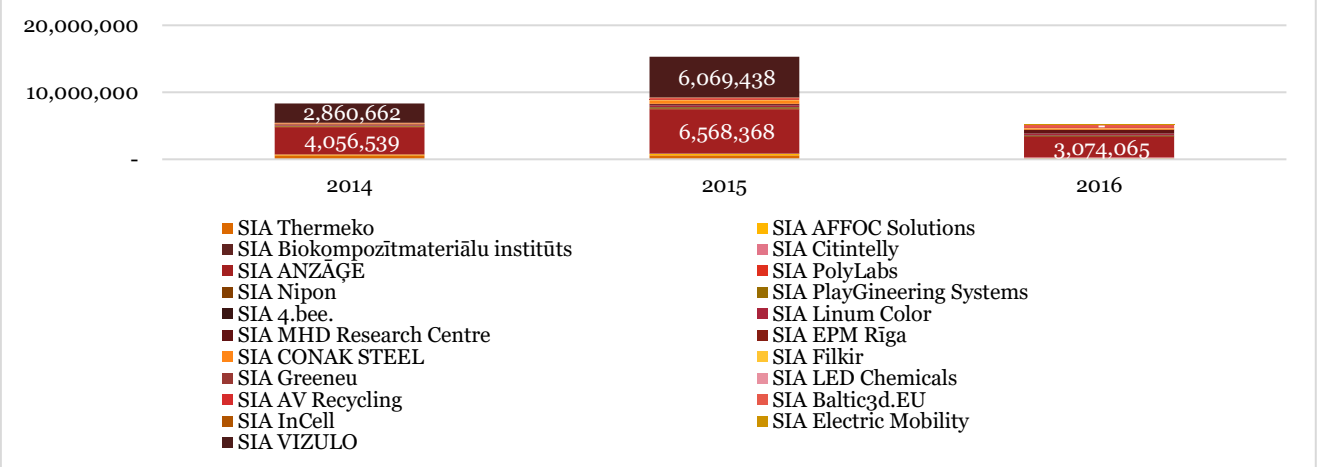
63. Figure. The annual change in the turnover of the participants in the open competition "Support for the introduction of green technologies in production". Source: Lursoft. PwC analysis.



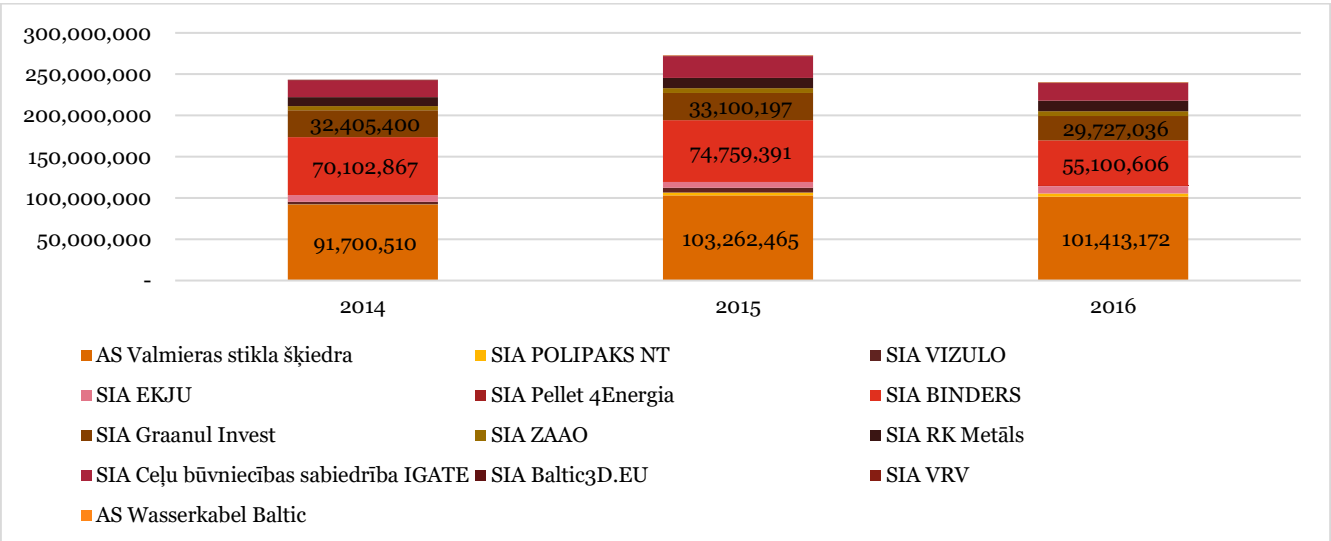
64. Figure. The turnover of the participants in the open competition "Support for the introduction of green technologies in production" in 2015 and 2016, which received the funding of the Program LV06 in 2015. Source: Lursoft. PwC analysis.



65. Figure. The cumulative turnover of a SGS in 2014, 2015, and 2016. Source: Lursoft, PwC analysis.

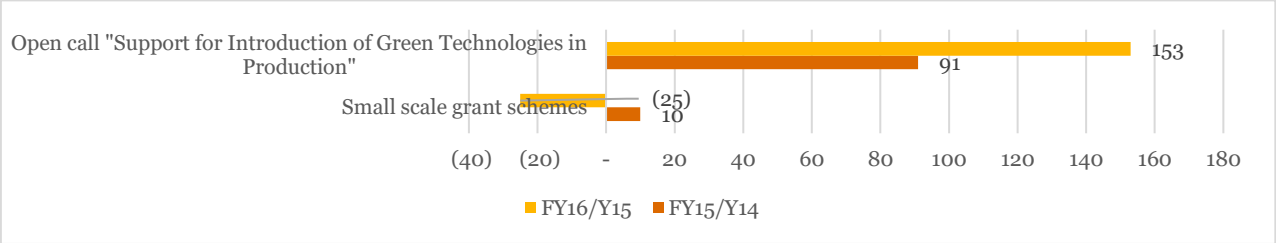


66. Figure. The cumulative turnover of the project application in the open tender "Support for the introduction of green" technologies in production "in 2014, 2015, and 2016. Source: LIAA, Lursoft, PwC analysis.

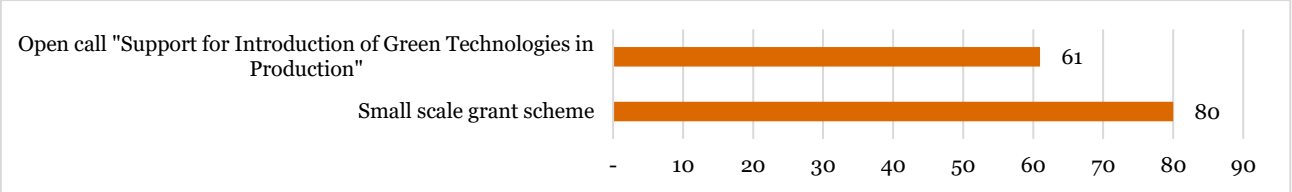


Increase in the number of employees

67. Figure. Changes in the number of LV06 staff members in 2016 compared to 2015 and 2015 compared to 2015. Source: Lursoft. PwC analysis.

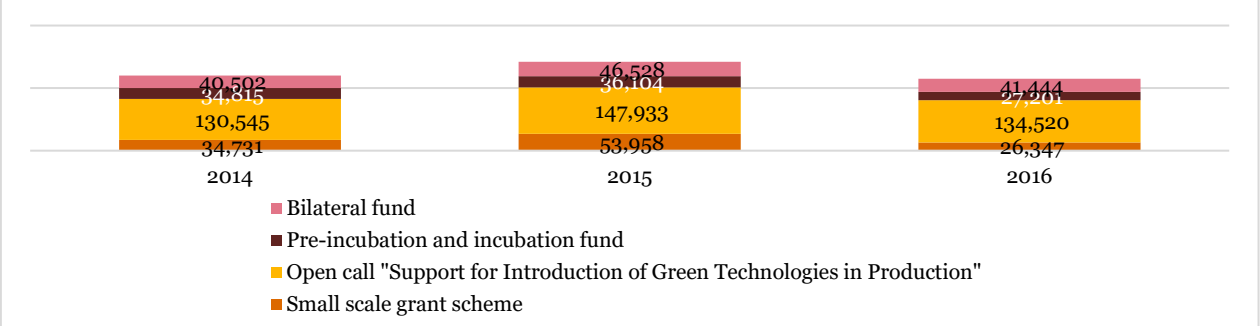


68. Figure. Number of new jobs created by LV06 participants. Source: Reports of LV06 participants - LIAA.

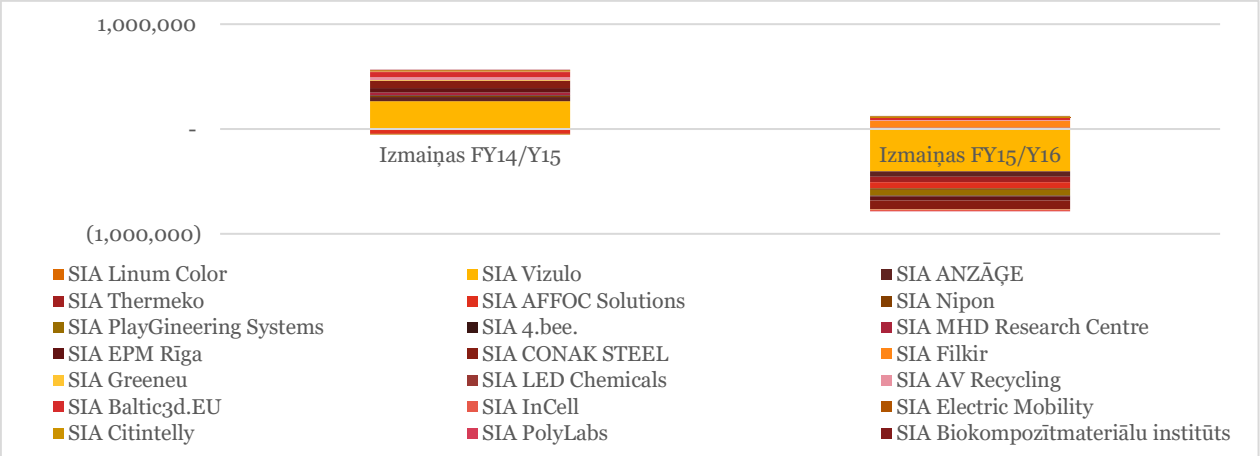


Productivity: Turnover per employee

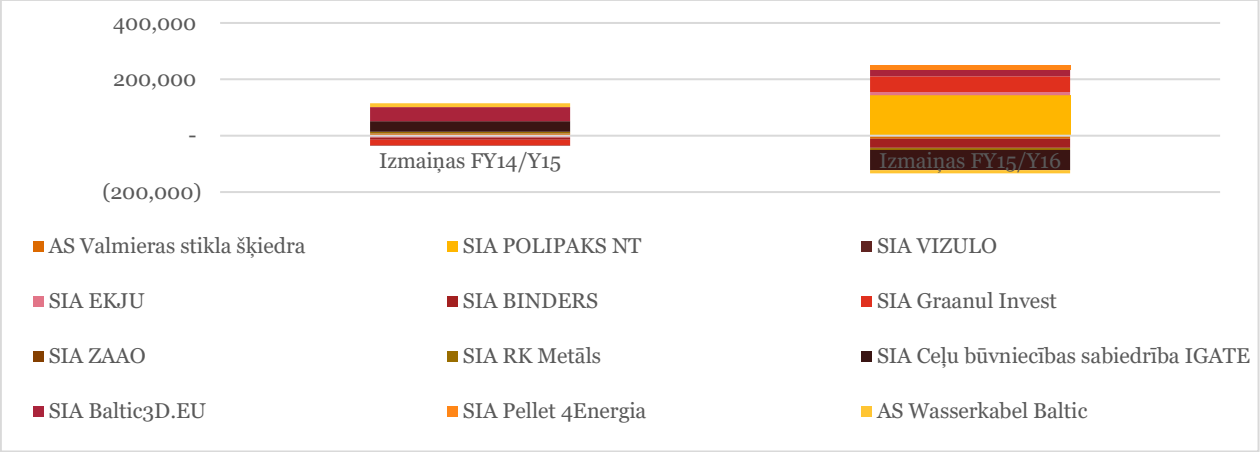
69. Figure. Productivity of program LV06 participants by program parts: turnover against the number of employees in a given year. Source: Lursoft, PwC analysis.



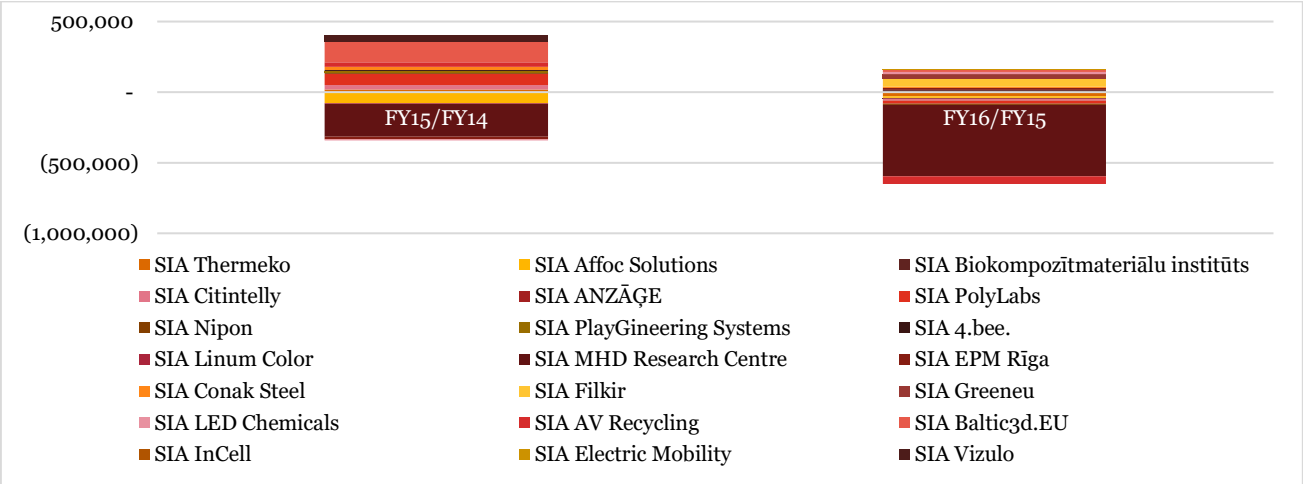
70. Figure. The change in the productivity of a SGS (turnover per employee) in 2016 compared to 2015 and 2015 compared to 2014. Source: Lursoft, PwC analysis.



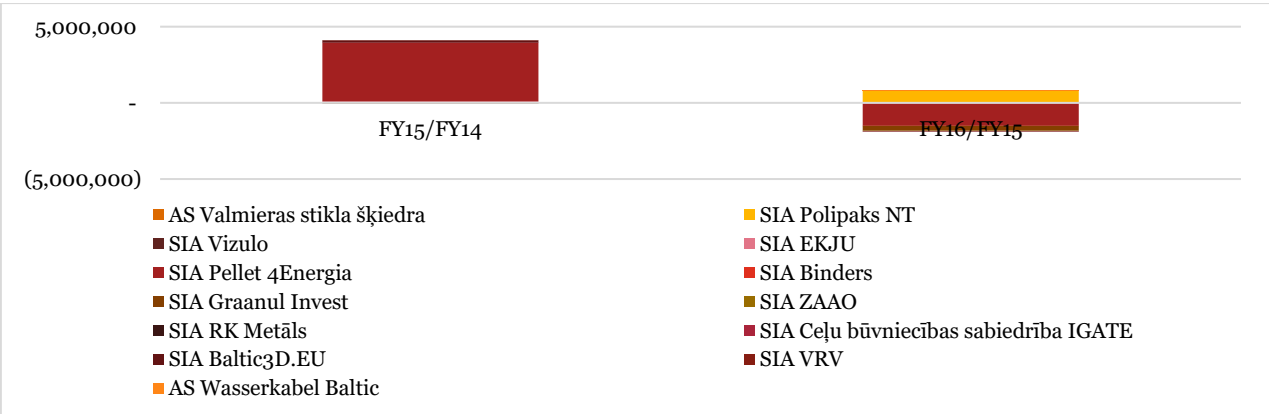
71. Figure. The project application was opened for the competition "Support for the introduction of green technologies in production" in 2016 compared to 2015 and 2015 compared to 2014 Source: Lursoft, PwC analysis



72. Figure. A SGS changes the number of participants' assets to employees in 2016 compared to 2015 and 2015 compared to 2014. Source: Lursoft, PwC analysis.

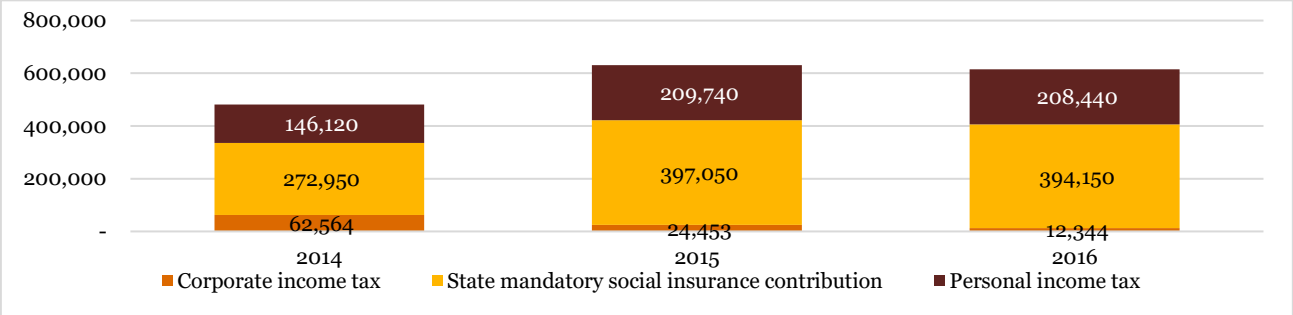


73. Figure . The project application competition "Support for the introduction of green" technologies in production "changed the number of participants' assets to employees in 2016 compared to 2015 and 2015 compared to 2014. Source: Lursoft, PwC

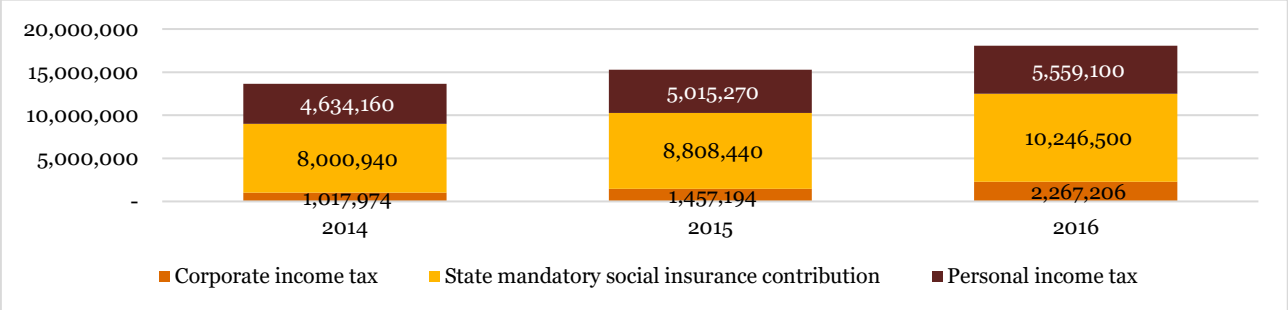


Tax contributions

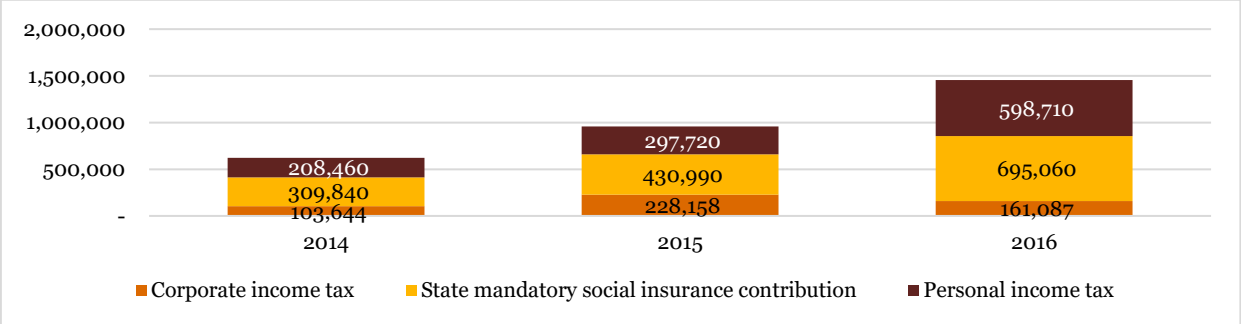
74. Figure. Amount of taxes paid by participants in a small scale grant scheme by type of tax. Source: Lursoft, PwC analysis.



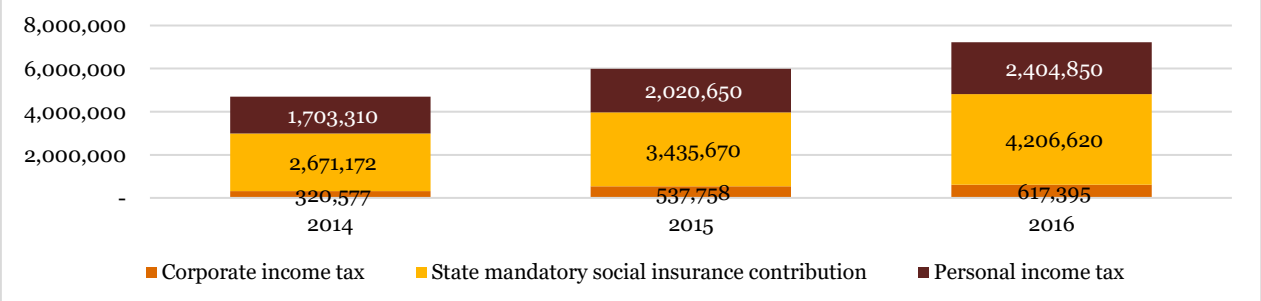
75. Figure. The project application was opened for the competition "Support for the introduction of green" technologies in production "by the amount of taxes paid by the participants by types of taxes. Source: Lursoft, PwC analysis



76. Figure. Tax amount paid by the participants in the pre-defined project. Source: Lursoft, PwC analysis.



77. Figure. Duties paid by members of the Bilateral fund at the Programme LV06 by types of taxes. Source: Lursoft, PwC analysis.

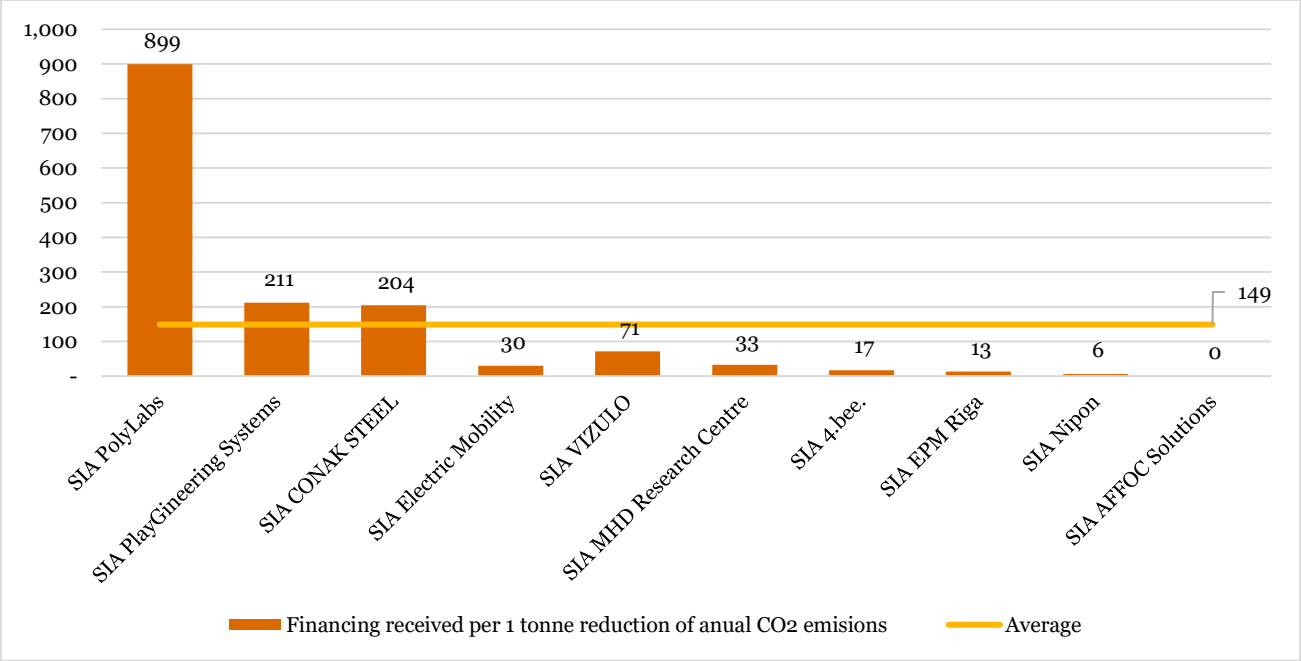


Environmental impact

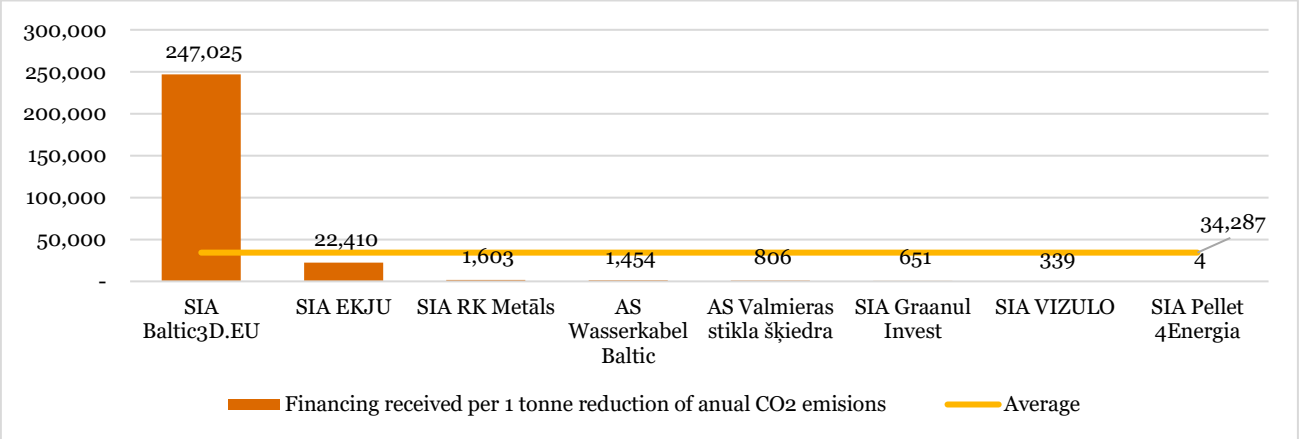
78. Figure. The average funding received for a small scale grant scheme and the open tender "Support for the introduction of green technologies for production" per tonne of CO2 emissions per year Source: LIAA.

79. Figure. The average amount of funding received by the small scale grant scheme and the open tender "Support for the introduction of green technologies in production" to the 1% reduction in CO2 emissions per year compared to the previous level. Source: LIIA.

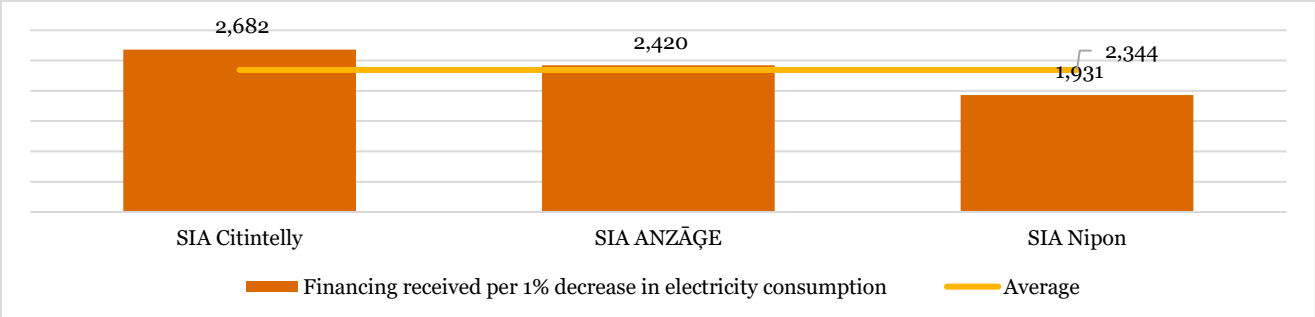
80. Figure. Funds received from participants in a small scale grant scheme for a reduction of 1 tonne of CO2 emissions per year. Source: LIAA, PwC analysis.



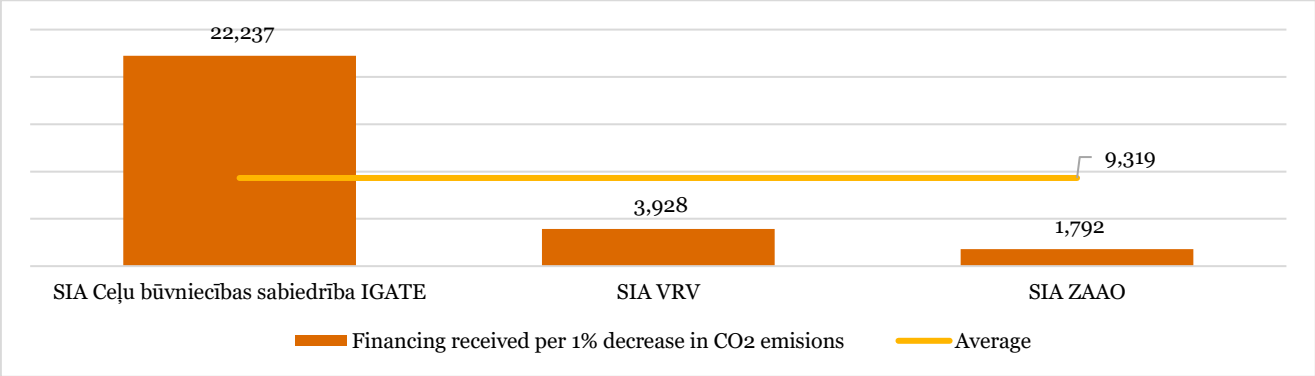
81.figure. Funding received by the participants for the Open Competition "Support for the introduction of green technologies in production" per 1 tonne of CO2 emissions per year Source: LIAA, Lursoft. PwC analysis.



82. Figure. Funds received from participants in a small scale grant scheme for a 1% reduction in electricity compared to the current level. Source: Reports of LV06 participants, PwC analysis.

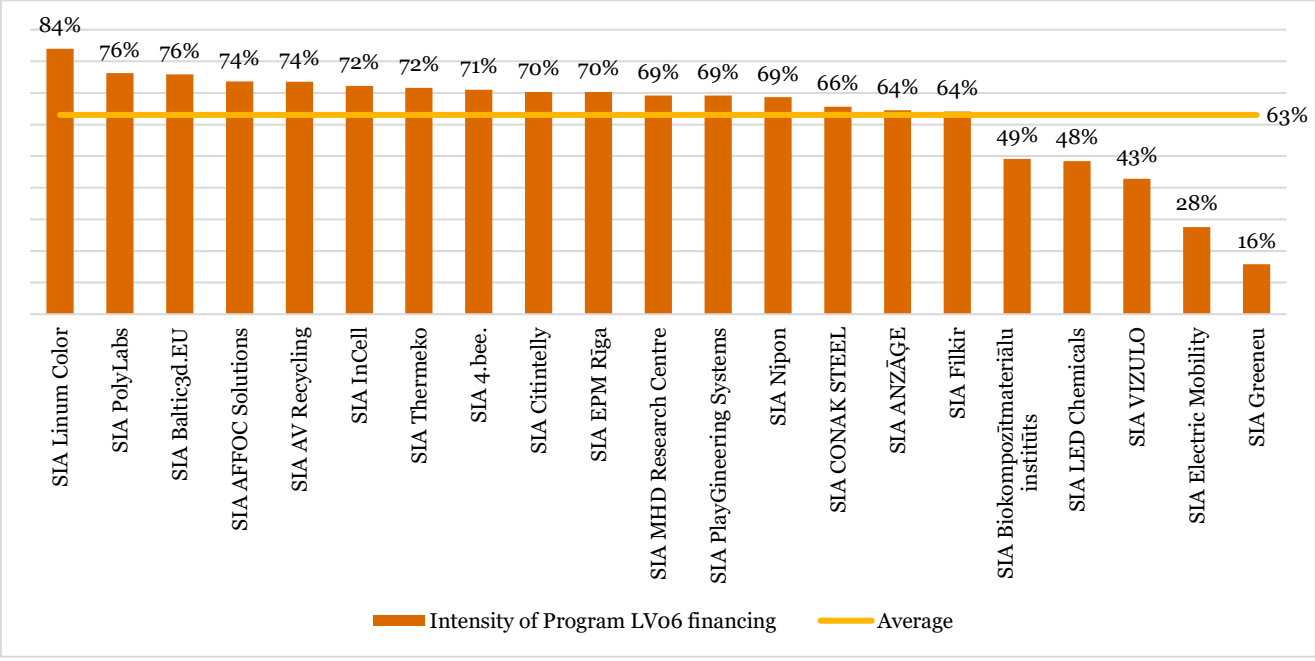


83. Figure. The funding received by the participants for the Open Competition "Support for the introduction of green technologies in production" to 1% reduction in CO2 emissions compared to the previous level Source: Program LV06 participants reports, PwC analysis.

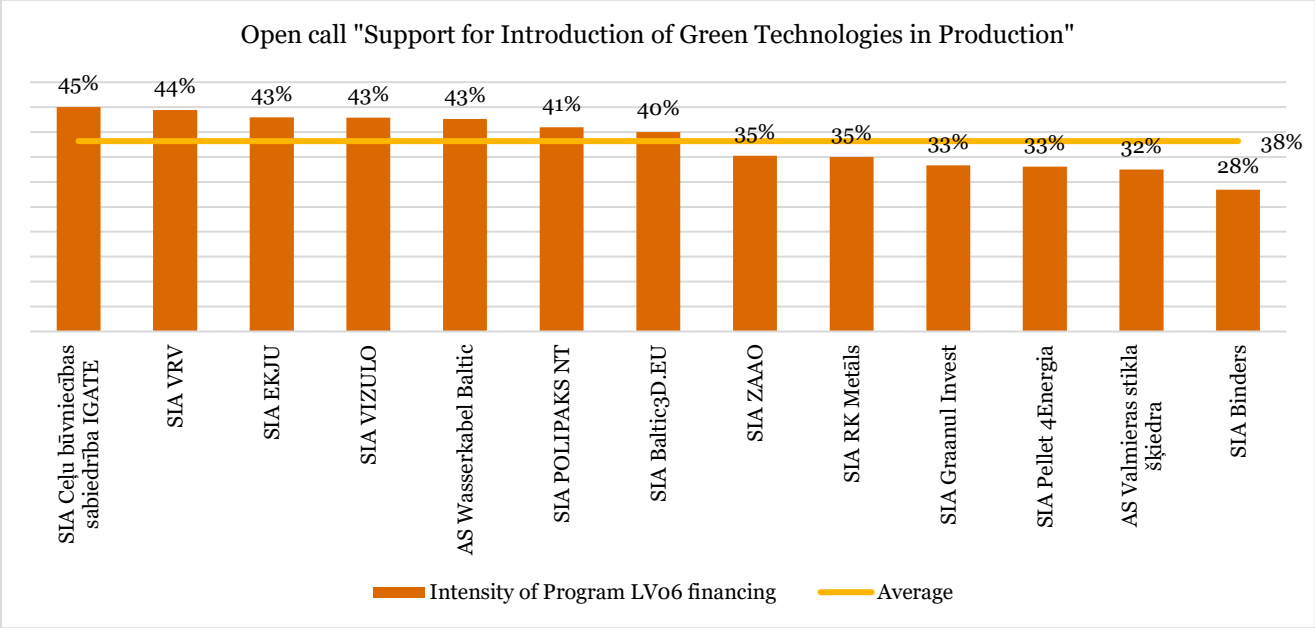


Financing intensity

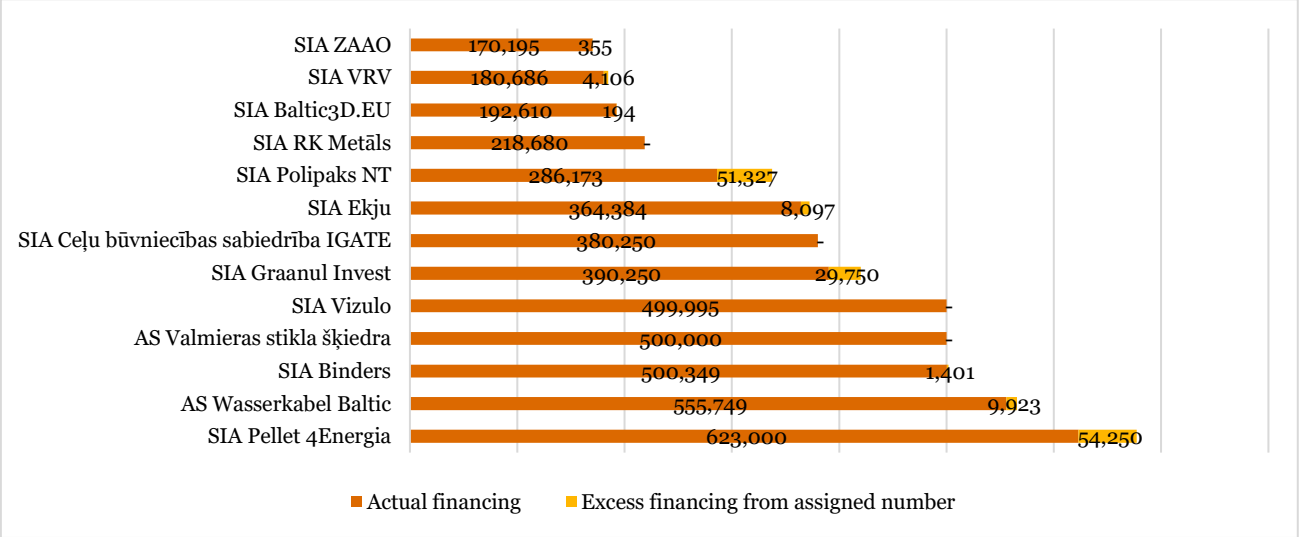
84. Figure. The amount of public funding received by participants in a small scale grant scheme. Source: Reports of LV06 participants, PwC analysis.



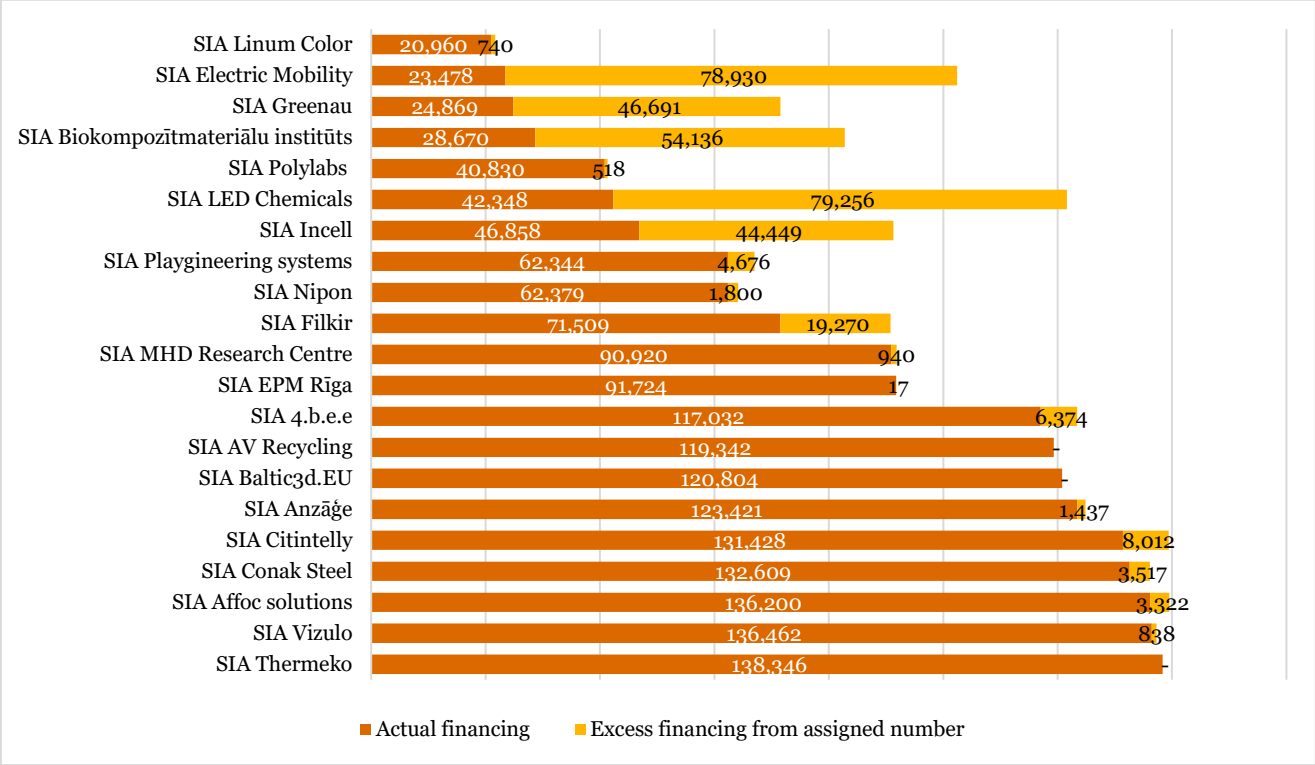
85. Figure. The intensity of public funding received by the participants in the open competition "Support for the introduction of green technologies in production".



86. Figure. Actual received public funding and the surplus initially allocated to the participants in Open Call . Source: LIIA. PwC analysis.

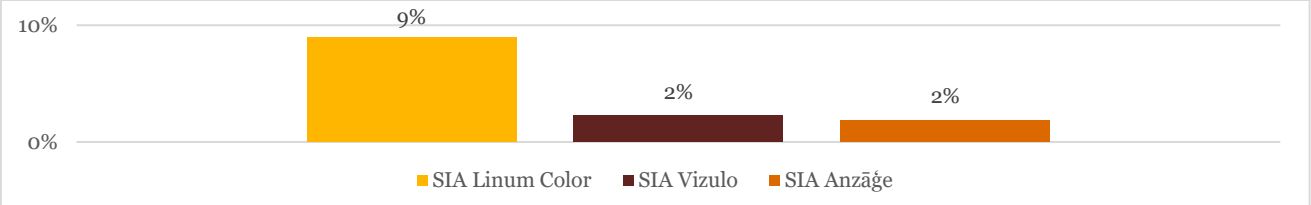


87. Figure. Actual received public funding and a surplus from the LV06 originally granted to participants in a small scale grant scheme. Source: LIIA. PwC analysis.

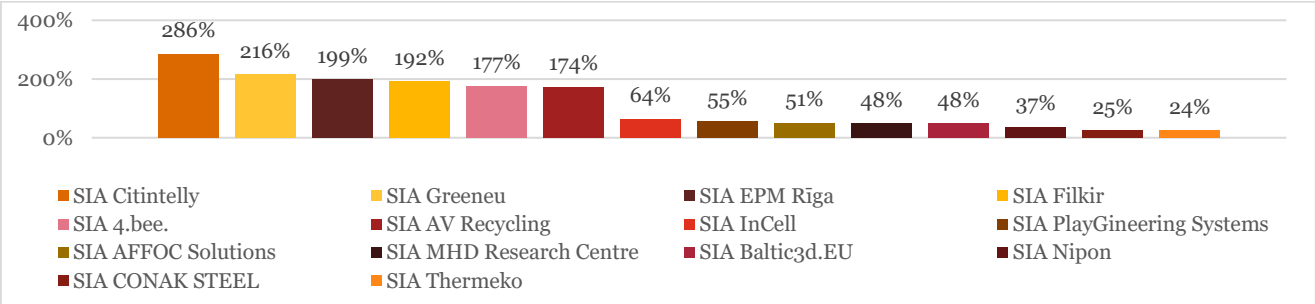


Breakdown: received funding from the annual turnover of the received financing

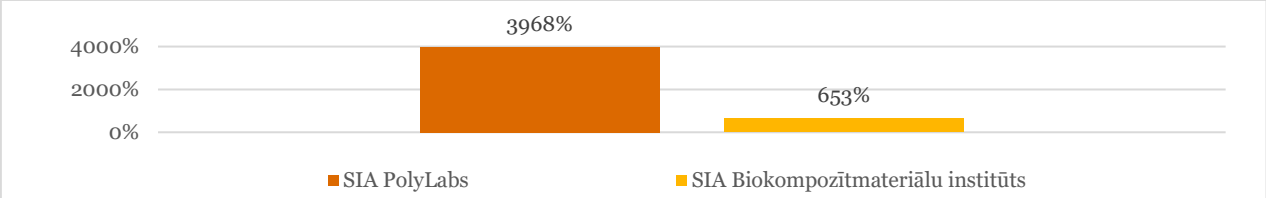
88. Figure. Public funding received by participants in a SGS against the annual turnover of the funding received, for which the share of this intervention is below 10%. Source: Lursoft, PwC analysis.



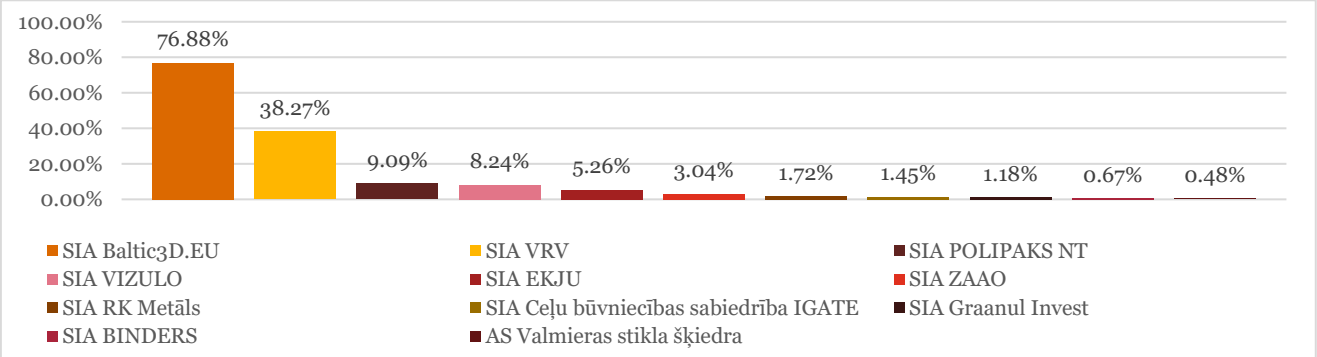
89. Figure. The public funding received from participants in a small scale grant scheme against the turnover of funding received, which is between 10% and 500% of this intervention. Source: Lursoft, PwC analysis.



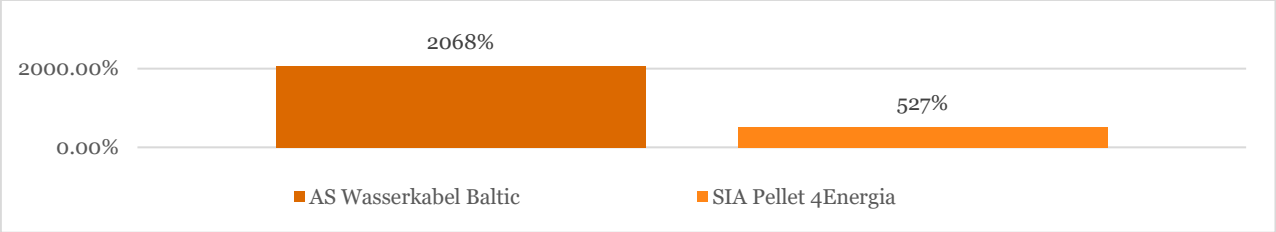
90. Figure. Funds received from participants in a SGS against the annual turnover of the funding receiving more than 500% of the funding. Source: Lursoft, PwC analysis



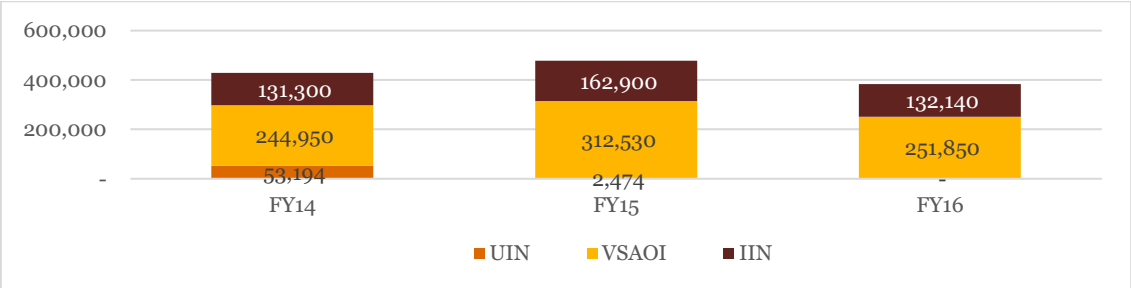
91. Figure. The funding received from the participants in Open Call received from the participants against the turnover of the financing received, for which the percentage of this intervention is below 100%. Source: Lursoft, PwC analysis.



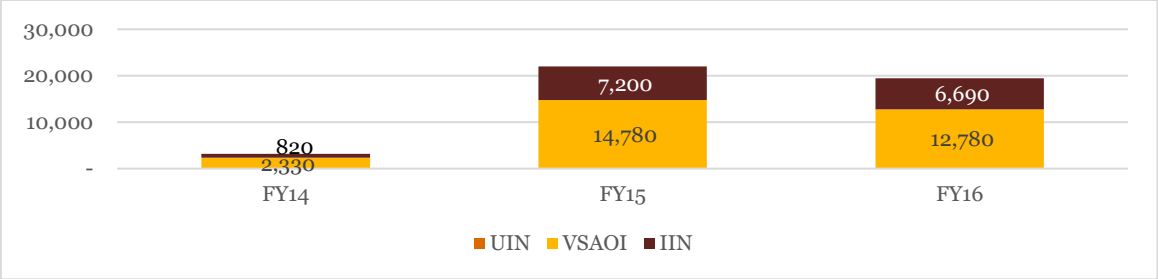
92. Figure. The funding received from the participants in the open call for proposals "Support for the introduction of green" technologies in production "to the turnover received from financing, for which the percentage of this intervention is over 100%. Source: Lursoft , PwC analysis.



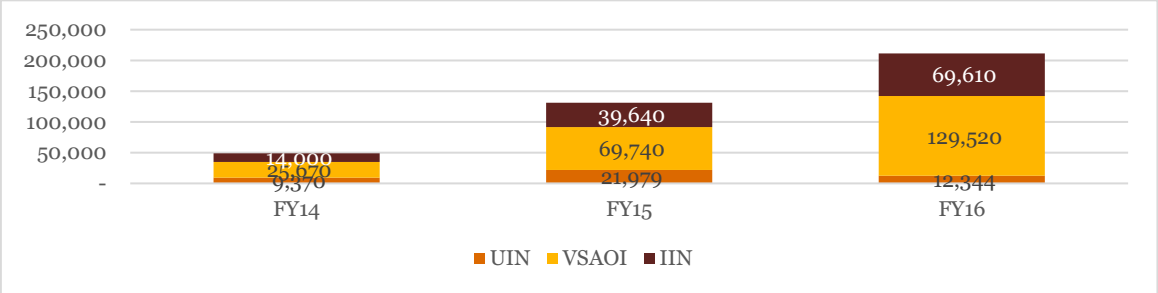
93. Figure. The amount of tax paid by the members of a SGS who received public funding from the annual turnover (the percentage of intervention) of the financing receipt is below 10%. Source: Lursoft. PwC analysis.



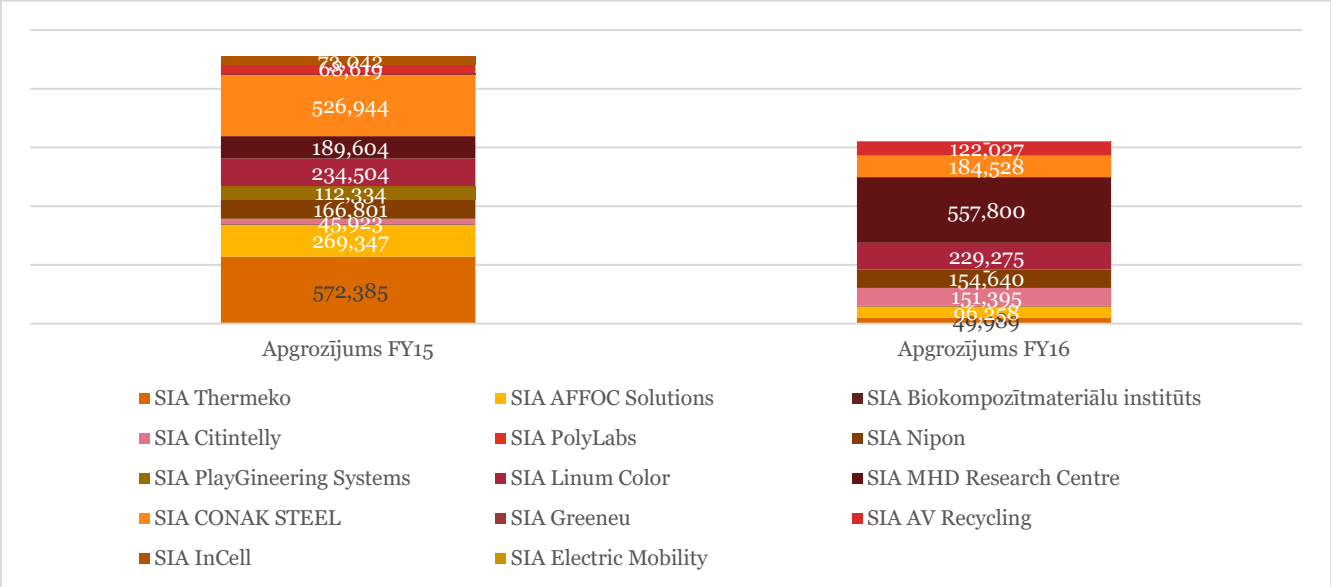
94. Figure. The amount of tax paid by the members of a SGS who received public financing from the annual turnover (intervention share) of the funding received exceeds 500%. Source: Lursoft. PwC analysis.



95. Figure. The amount of tax paid by the members of a SGS who received public funding from the annual turnover (intervention share) of the financing received between 10% and 500%. Source: Lursoft. PwC analysis

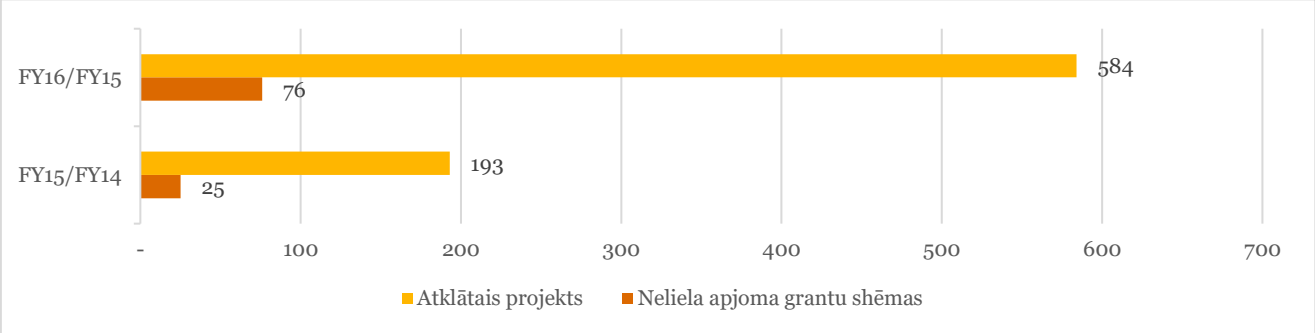


96. Figure. The turnover of the SGS participants in 2015 and 2016 who received the funding of the Program LV06 in 2015. Source: Lursoft. PwC analysis.



97.figure. Participants' turnover in 2014, 2015, and 2016, which received funding from the Program LV06 in 2014, was announced in the open competition "Support for the introduction of green technologies for production". Source: Lursoft. PwC analysis.

98. Figure. The modification of the small scale grant scheme and the open tender "Support for the introduction of green technologies for production" in the participants' interviews in 2016 compared to 2015 and 2015 compared to 2014. Source: Lursoft.



2. List of Competitor Companies of the Program

- • Competitive companies of the program companies, whose data were used for comparison of financial indicators.
- • Only indicators of companies registered in the territory of Latvia are used.

7.Table. List of competitors mentioned in telephone interviews / surveys of participants in a small scale grant scheme

Small amount grant scheme	
SIA *Linum Color*	SIA *Vincents Polyline*
	SIA *Eko Solis*
SIA *MHD Research Centre*	SIA *MHD SKB*
	SIA *Hidrovats*
SIA *AV Recycling*	*Ceļu Emulsija-HL*
	Ceļu pārvalde AS
SIA *FILKIR*	*Latvija Valsts Koksnes Ķīmijas institūts*
	Fizikālās Enerģētikas Institūts
SIA *Thermeko*	*Paroc*
	Tenac
	SIA *ECO ISO*

8. Table. "List of competitors mentioned in the call for proposals in the open call for tender" Support for the introduction of green technologies for production "by participants in telephone interviews / surveys

Project application for the open tender "Support for the introduction of green technologies in production	
SIA *Baltic3D.eu*	SIA *Mass Portal*
	colorFabb B.V. - https://colorfabb.com/woodfill
	Polymakr LLC- http://www.polymaker.com/shop/polywood/
AS *Valmieras stikla šķiedra*	https://www.saint-gobain.com/en
	https://www.owenscorning.com
	http://www.neg.co.jp/en/product/fiber
SIA AV Recycling	SIA *Aukstais asfalts*
	SIA *Ceļu Emulsija HL*
	AS *Ceļu Pārvalde*
SIA *VRV*	SIA *Sadzīves pakalpojumi*
	SIA *Green line Services*
	SIA *Irve*
SIA Polipaks NT	SIA *Baltic Polymers*
	SIA *Fedak-Plast*
SIA *Pellet 4Energia*	SIA *Graanul Invest*
	SIA *Latgran*
	SIA *New Fuels*
SIA *ZAAO*	SIA *Clean R*
	SIA *Eco Baltvia Vide*
	SIA *Ragn-Sells*
SIA Vizulo	*ArkiLED*
SIA Graanul Invest	SIA *Viva Energia*
SIA *Ceļu būvniecības sabiedrība IGATE*	SIA *Saldus Ceļinieks*
	SIA *Lemminkainen Latvija*
SIA Binders	AS *ACB*
	Saldus Ceļinieks
	SIA *Lemminkainen Latvija*

9.Table. Participants of the program LV06, which have no competing companies in the territory of Latvia.

Businesses who have no competing companies in the territory of Latvia
SIA *EKJU*

SIA *Playgeneering Systems*
SIA *4.bee*
SIA *Biokompozītmateriālu Institūrs*
SIA *Conak Steel*
SIA *MHD Research Centre, EPM Rīga*
SIA *Baltic3D.EU*

3. Annex – LIAA payment schedule

10.*Table. The funding received annually by the public tenderers. Source: LIIA. PwC analysis..*

Business	Funding received in 2014	Funding received in 2015	Funding received in 2016	Funding received in 2017	SUM of received funding
SIA *Polipaks NT*	118,125	168,048	-	-	286,173
AS *Valmieras stikla šķiedra*	175,000	-	325,000	-	500,000
SIA *VRV*	-	63,140	117,546	-	180,686
SIA *Ceļu būvniecības sabiedrība IGATE*	-	133,088	247,163	-	380,250
SIA *Graanul Invest*	-	-	390,250	-	390,250
SIA *ZAAO*	-	-	170,195	-	170,195
SIA *Pellet 4Energia*	-	-	-	623,000	623,000
SIA *RK Metāls*	-	-	218,680	-	218,680
SIA *RK Metāls*	-	52,000	94,063	46,547	192,610
SIA *EKJU*	-	-	364,384	-	364,384
SIA *BINDERS*	-	-	500,349	-	500,349
SIA *VIZULO*	-	-	-	499,995	499,995
AS *Wasserkabel Baltic*	-	-	197,985	357,764	555,749

11.*Table Funds received annually by participants in a small scale grant scheme. Source: LIDA. PwC analysis..*

Business	Funding received in 2015	Funding received in 2016	Funding received in 2017	SUM of received funding
SIA *Vizulo*	-	15,031	121,431	136,462
SIA *Incell*	7,364	26,105	13,389	46,858
SIA *Electric Mobility*	5,948	14,156	3,374	23,478
SIA *Citintelly*	39,900	-	91,528	131,428
SIA *Thermeko*	24,480	29,859	84,008	138,346
SIA *AFFOC Solutions*	46,916	89,284	-	136,200
SIA *Biokompozītmateriālu institūts*	28,536	-	134	28,670
SIA *Polylabs*	14,259	26,571	-	40,830
SIA *AV Recycling*	41,556	7,110	70,676	119,342
SIA *Greenau*	24,869	-	-	24,869

Business	Funding received in 2015	Funding received in 2016	Funding received in 2017	SUM of received funding
SIA *Playgineering systems*	23,240	11,679	27,424	62,344
SIA *Conak Steel*	47,431	35,393	49,786	132,609
SIA *LED Chemicals*	-	42,348	-	42,348
SIA *RK Metāls*	-	16,485	104,319	120,804
SIA *4.b.e.e*	-	42,982	74,050	117,032
SIA *EPM Rīga*	-	31,896	59,828	91,724
SIA *Nipon*	19,540	28,794	14,045	62,379
SIA *Linum Color*	7,500	10,095	3,365	20,960
SIA *MHD Research Centre*	31,938	58,982	-	90,920
SIA *Filkir*	-	71,509	-	71,509
SIA *ANZĀĢE*	-	123,421	-	123,421

12.Table. The funding received by the public tenderers annually in proportion to the total amount of funding received. Source: LIIA. PwC analysis.

Business	Date of agreement	Funding received in 2014 from total funding	Funding received in 2015 from total funding	Funding received in 2016 from total funding	Funding received in 2017 from total funding	Received sum in total
SIA *Polipaks NT*	08.09.2014.	41%	59%	0%	0%	286,173
AS *Valmieras stikla šķiedra*	01.09.2014.	35%	0%	65%	0%	500,000
SIA *VRV*	25.06.2015.	0%	35%	65%	0%	180,686
SIA *Ceļu būvniecības sabiedrība IGATE*	18.06.2015.	0%	35%	65%	0%	380,250
SIA *Graanul Invest*	06.07.2015.	0%	0%	100%	0%	390,250
SIA *ZAAO*	09.07.2015.	0%	0%	100%	0%	170,195
SIA *Pellet 4Energia*	25.06.2015.	0%	0%	0%	100%	623,000
SIA *RK Metāls*	25.06.2015.	0%	0%	100%	0%	218,680
SIA *RK Metāls*	21.07.2015.	0%	27%	49%	24%	192,610
SIA *EKJU*	19.06.2015.	0%	0%	100%	0%	364,384
SIA *BINDERS*	18.06.2015.	0%	0%	100%	0%	500,349
SIA *VIZULO*	09.07.2015.	0%	0%	0%	100%	499,995
AS *Wasserkabel Baltic*	17.08.2015.	0%	0%	36%	64%	555,749

13.Table. The funding received by participants in a small scale grant scheme is annually proportional to the total amount of funding received. Source: LIIA. PwC analysis.

Business	Date of agreement	Funding received in 2015 from total funding	Funding received in 2016 from total funding	Funding received in 2017 from total funding	Received sum in total
SIA *Vizulo*	06.03.2015.	0%	11%	89%	136,462
SIA *Incell*	27.02.2015.	16%	56%	29%	46,858
SIA *Electric Mobility*	27.02.2015.	25%	60%	14%	23,478
SIA *Citintelly*	08.04.2015.	30%	0%	70%	131,428
SIA *Thermeko*	01.04.2015.	18%	22%	61%	138,346
SIA *AFFOC Solutions*	01.04.2015.	34%	66%	0%	136,200
SIA *Biokompozītmateriālu institūts*	02.04.2015.	100%	0%	0%	28,670

Business	Date of agreement	Funding received in 2015 from total funding	Funding received in 2016 from total funding	Funding received in 2017 from total funding	Received sum in total
SIA *Polylabs*	09.09.2015.	35%	65%	0%	40,830
SIA *AV Recycling*	09.09.2015.	35%	6%	59%	119,342
SIA *Greenau*	15.09.2015.	100%	0%	0%	24,869
SIA *Playgineering systems*	15.09.2015.	37%	19%	44%	62,344
SIA *Conak Steel*	15.09.2015.	36%	27%	38%	132,609
SIA *LED Chemicals*	15.09.2015.	0%	100%	0%	42,348
SIA *RK Metāls*	15.09.2015.	0%	14%	86%	120,804
SIA *4.b.e.e*	15.09.2015.	0%	37%	63%	117,032
SIA *EPM Rīga*	15.09.2015.	0%	35%	65%	91,724
SIA *Nipon*	15.09.2015.	31%	46%	23%	62,379
SIA *Linum Color*	15.09.2015	36%	48%	16%	20,960
SIA *MHD Research Centre*	02.10.2015	35%	65%	0%	90,920
SIA *Filkir*	15.09.2015.	0%	100%	0%	71,509
SIA *ANZĀĢE*	02.10.2015.	0%	100%	0%	123,421

14. Table. Number of payments received by public tenderers. Source: LIIA. PwC analysis.

Business	Number of payments in 2014	Number of payments in 2015	Number of payments in 2016	Number of payments in 2017	Received sum in total
SIA *Polipaks NT*	1	1	0	0	286,173
SIA *Valmieras stikla šķiedra*	1	0	1	0	500,000
SIA *VRV*	0	1	1	0	180,686
SIA *Ceļu būvniecības sabiedrība IGATE*	0	1	1	0	380,250
SIA *Graanul Invest*	0	0	1	0	390,250
SIA *ZAAO*	0	0	2	0	170,195
SIA *Pellet 4Energia*	0	0	0	1	623,000
SIA *RK Metāls*	0	0	1	0	218,680
SIA *Baltic3D.EU*	0	1	1	1	192,610
SIA *EKJU*	0	0	1	0	364,384
SIA *BINDERS*	0	0	1	0	500,349
SIA *VIZULO*	0	0	0	1	499,995
AS *Wasserkabel Baltic*	0	0	1	1	555,749

15. Table Number of payments received by members of a small scale grant scheme. Source: LIIA. PwC analysis.

Business	Payments in 2015	Payments in 2016	Payments in 2017	Amount received
SIA *Vizulo*	0	1	2	136,462
SIA *Incell*	1	1	1	46,858
SIA *Electric Mobility*	1	1	2	23,478
SIA *Citintelly*	1	0	1	131,428
SIA *Thermeko*	1	1	1	138,346
SIA *AFFOC Solutions*	1	3	0	136,200
SIA *Biokompozītmateriālu institūts*	1	0	1	28,670
SIA *Polylabs*	1	2	0	40,830
SIA *AV Recycling*	1	1	1	119,342
SIA *Greenau*	1	0	0	24,869
SIA *Playgineering systems*	1	1	1	62,344
SIA *Conak Steel*	1	1	1	132,609
SIA *LED Chemicals*	0	1	0	42,348
SIA *RK Metāls*	0	1	1	120,804
SIA *4.b.e.e*	0	1	2	117,032
SIA *EPM Rīga*	0	1	1	91,724
SIA *Nipon*	1	2	1	62,379
SIA *Linum Color*	1	1	2	20,960
SIA *MHD Research Centre*	1	1	0	90,920
SIA *Filkir*	0	1	0	71,509
SIA *ANZĀĢE*	0	2	0	123,421

4. annex – An overview of the achievements of the business' environmental impact

16. Table. Overview of Improvements in the Negative Environmental Impact of the Participants of the Small Scale Grant Scheme. Source: LIDA.

Nr.p.k.	Merchans name	Description of the improved environmental impact indicators
1.	SIA *4.bee*	Provided that the Company serves 12 objects annually for an average area of 5000 m2, the consumption of electricity will decrease by 5-10%. Accordingly, according to average public electricity consumption for heating, cooling and ventilation, servicing of each building reduces CO2e by 9,362 tons / year. According to the calculations, if 12 objects with 60 sets are served per year, the average CO2e savings will be 6741 tonnes of CO2e.
2.	SIA *AFFOC Solutions*	1460,508 t CO2 reduction
3.	SIA *Anzāģe*	Reduction of electronics consumption by 51% and reduction of water consumption by 11 times
4.	SIA *AV Recycling*	Final evaluation is under way.
5.	SIA *Baltic3d.EU*	Final evaluation is under way.
6.	SIA *Biokompozītmateriālu institūts*	According to the calculations made by the Company (letter No.2 / 08/05, May 25, 2017), if 36 tons of biopolymer material are produced, then by composting it, the amount of municipal waste will decrease by about 32 tons in comparison with polyethylene or bioplastic.
7.	SIA *Citintelly*	According to the calculations, the reduction of electricity consumption by stagnant adjustment will be 45%, but with a smooth adjustment of 53%.
8.	SIA *Conak Steel*	Reduction of emissions from coal - 233 787 CO2 kg / year, natural gas - 141 540 CO2 kg / year and wood (w = 55%) - 273 293 CO2 kg / year
9.	SIA *Electric Mobility*	Provided that 150 electric scooters will be produced within 5 years. According to the calculations, comparing the pollution caused by cars with an electric flywheel, the product will result in a reduction of environmental pollution - CH - 5.25 t, CO - 39 t, CO2 - 780 t, NOX - 2.6 t.
10.	SIA *EPM Rīga*	According to the experiments carried out by the University of Latvia's Institute of Physics, electricity consumption was 1700 kWh / t (existing technology consumes 13750 kWh / t of electricity), which will generate about 7'000'000 kg of CO2 in 7 years.
11.	SIA *Filkir*	Final evaluation is under way.
12.	SIA *Greeneu*	Final evaluation is under way.
13.	SIA *InCell*	The developed product AlloMT Cell, compared to previous generation products, achieves up to 90% reduction in energy consumption and produces 35 times less CO2 in the production process.
14.	SIA *LED Chemicals*	Final evaluation is under way.
15.	SIA *Linum Color*	*PaintEco's new product - interior oil compared to the interior color of KEIM Biosil, it can be concluded that the surface of the 1m2 surface requires 0.093 kg of interior oil and 0.330 kg of KEIM Biosil interior colors, which reduces the environmental impact by 72% due to lower color consumption. Also, the production of interior oil does not use water that ensures the preservation of this resource and makes the use of oil more 20-35% more environmentally friendly than the color of KEIM Biosil.*
16.	SIA *MHD Research Centre*	CO2 reduction by 41 747 tonnes over a period of 15 years, which is 18.75% higher than originally planned
17.	SIA *Nipon*	According to the calculations made by the Company, comparing new equipment with similar equipment, it will consume 32.3% less electricity. According to 20/06/2017 the calculations made in the letter, provided that the new plant (BIO-KOMBI-TEH1) uses 10 tonnes of bio-plastic raw material per year, the environmental impact of CO2 will be reduced by 10 100 tonnes compared to a similar packaging manufacturing facility producing polypropylene packaging.
18.	SIA *PlayGineering Systems*	The energy savings are up to 499 MWh, resulting in a CO2 reduction of 295 tonnes per year (expert opinion of 23.01.2017).
19.	SIA *PolyLabs*	Recalculated according to the project's achievements, 22 tons of biopoly (rapeseed and tallow oil), absorbing 45.4 tons of CO2, were produced.
20.	SIA *Thermeko*	Final evaluation is under way.
21.	SIA *Vizulo*	According to the Company on April 24, 2017. Letter No. 2017-04 / 01, comparing with existing airport luminaires, provided that the company's luminaire is used at 4000 h / year, the reduction of electricity consumption will be 3,000 kWh, respectively, the reduction of 1.1910 t / CO2 gas per year.

17. Table Project application application open competition "Support for implementation of green" technologies in production participants' environmental indicators. Source: LIIA.

The project application was opened for the "Support for the introduction of green" technologies in production		
1	SIA *BINDERS*	5.70 nm3/t
2	SIA *Baltic3D.EU*	In the 3-month period, 194.93 kg CO2
3	SIA *Ceļu būvniecības sabiedrība IGATE*	20%; adding 20% of milling asphalt containing no more than 4% moisture, fuel consumption will decrease by 15.2%; Operating the machine and reducing the production temperature by 20 C results in a 17.1% reduction in CO2 consumption; SO2 reduction - 30%, volatile organic substances - at least 50%, CO - 10% and NOx - 60%
4	SIA *Graanul Invest*	599 860 kg CO2
5	SIA *EKJU*	1) CO2 reduction of 16.26 tons / year; 2) color consumption will be reduced by 15 times.
6	SIA *Pellet 4Energia*	The reduction of greenhouse gas emissions (GHG) from 125,360 to 156,384 tons of CO2 / year, depending on the purpose for which the granules are spent.
7	SIA *RK Metāls*	136 417 kgCO2/annualy
8	SIA *POLIPAKS NT*	1) 50 ton/monthly LDPE; 2) 441 ton/annualy; 3) 474 kW.
9	AS *Valmieras stikla šķiedra*	60% (reduction from 5 - 2 t / d is equivalent to 60%), <pH 6.5 or> pH 9.5, 0 t / year, 1 g / l
10	SIA *Vizulo*	1) the indicator is achieved - within 5 years, you will save 81.43 m3 of polycarbonate and 51793.81 kg of metal; 2) will achieve a reduction of 7364,60 CO2 / tonne of gas emissions over a period of 5 years.
11	SIA *VRV*	1) Gas savings of 60.75%; 2) emission reduction by 46%.
12	AS *Wasserkabel Baltic*	According to the submitted opinion (SIA Ekodoma), the technology developed by the company is compared with the traditional warm floor system and metal radiator system, resulting in a 4 year reduction of CO2 emissions of 1,087 tonnes / CO2 to the classical warm floor system and to 1971 tonnes / CO2 applied to metal radiator system.
13	SIA *ZAAO*	The waste bag bag boosted by the machine provides a 95% reduction in emissions. As well as the amount of waste deposited for landfill will be reduced by at least 650 tons per year.

5. attachment. Questionnaire

Norwegian Financial Instrument Programme LV06 "Innovation in "green" production" evaluation

Information about the respondent

Q1 **Please indicate the merchant name or the name of a person if it is not a legal person**

_____

Q2 **In what part of the LV06 program your project received support**

☐ Predetermined project (including the **pre-incubation** and **incubation** fund), implemented by the 'green' incubator (1)

☐ **SGS** (2)

☐ **Open tender funding** "Support for "green" technology implementation"

☐ Program's **bilateral co-operation** (4)

I section. Overall assessment of the impact of the assistance provided by the Programme

Q3 **To what extent the received support for the project has affected your involvement in the activities of "green" innovation* and your innovation capacity?** (Please select one answer option).
*Scientific or technological innovation (technology, process or product) aimed at promoting energy efficiency, pollution abatement, waste recycling, environmental product design or improving energy management.

○ The support has contributed to the faster development of our company's "green" innovation capacity (1)

○ The support has enabled us to introduce "green" innovations (2)

○ Support has not substantially affected company's "green" innovation capability (3)

○ Another answer (please kindly detail) (4)

_____

○ Not applicable (5)

Q4 **How did the support affect your involvement in "green" innovation activities and the "green" innovation capacity?** (Multiple answer choices are possible)

- ☐ The company independently implements or develops new “green” innovation projects (1)
- ☐ The company successfully maintains the results of the “green” innovation project (2)
- ☐ The support has not affected company’s “green” innovation ability (3)
- ☐ Another answer (please kindly detail) (4)

_____

- ☐ Not applicable (5)

Q5 **How did the received financial support affect the ecology or the economic activity of your company?** (Multiple answer choices are possible)

- ☐ It has increased the productivity of the company (1)
- ☐ It has increased the competitiveness of the company (2)
- ☐ The company was able to move into new market sectors and increase its product distribution channels (3)
- ☐ It has increased efficiency of the company (4)
- ☐ It has enabled the company to become more environmentally friendly (5)
- ☐ It facilitated the company to commence and develop its operation (6)
- ☐ It has facilitated an additional income flow for the company (7)
- ☐ The financial support of the programme has not changed your position on the market (8)
- ☐ Another answer (please kindly detail) (9)

_____

- ☐ Not applicable (10)

Q6 **How has the received financial support improved your company's competitiveness?** (Multiple answer choices are possible)

- ☐ Your offered “green” innovation product or service is unique on the market (1)
- ☐ As a result of your “green” innovation the operational expenses have decreased significantly (2)
- ☐ Your customer circle has increased (3)
- ☐ Your company’s administrative or financial sustainability has increased (4)
- ☐ The financial support has not impacted the competitiveness of the company (5)
- ☐ Another answer (please kindly detail) (6) _____
- ☐ Not applicable (7)

Q7 **How did your partnership networks change** (for instance, partners, suppliers, etc)?

- ○ Partnership networks have increased (1)
- ○ Partnership networks have decreased (2)
- ○ Partnership networks have not changed (3)
- ○ Another answer (please kindly detail) (4) _____
- ○ Not applicable (5)

Q8 **How has the support affected your cooperation with scientific institutions, and other new products and technology support structures or partners (such as testing and certification laboratories, 3D laboratories, patent attorneys, etc.)**? (If applicable)

- ○ The programme has facilitated the cooperation with scientific institutions (1)
- ○ We have increased our own research capacity (2)
- ○ The financial support did not impact your cooperation with scientific institutions (3)
- ○ Another answer (Please kindly detail) (4)

_____

- ○ Not applicable (5)

Q9 **What improvements and/or additional support activities would be necessary to promote your company's closer economic and research links with Norwegian representatives?**

- ☐ More events, where there is an opportunity to meet new potential partners (1)
- ☐ More events, where there is an opportunity to meet potential partners, with whom the communication has already been initiated (2)
- ☐ No improvements are required
- ☐ Another answer (Please kindly detail) (5)

_____

- ☐ Not applicable (6)

Q10 **How did the financial support impact your administrative or financial sustainability?**

☐ Cash flow from the new product, service, process or technology implementation has improved the **financial sustainability** of the company (1)

☐ Cash flow from the new product, service, process or technology implementation has **not** improved the **financial sustainability** of the company (2)

☐ Cash flow from the new product, service, process or technology implementation has improved the **administrative** sustainability of the company (3)

☐ Cash flow from the new product, service, process or technology implementation has **not** improved the **administrative** sustainability of the company (4)

☐ Another answer (Please kindly detail) (5)
_____

☐ Not applicable (6)

Q11 **Approximately what portion of your sales turnover is a direct result by the "green" as an outcome of the financial support in frames of the Programme?**

- ○ 5% (1)
- ○ 10% (2)
- ○ 20% (3)
- ○ 30% (4)
- ○ 40% (5)
- ○ 50% (6)
- ○ 60% (7)
- ○ 70% (8)
- ○ 80% (9)
- ○ 90% (10)
- ○ 100% (11)
- ○ Not applicable (12)

Q12 **Please name three of your direct competitors in Latvia, that operate in the same market sector are your company does**. (The information is necessary to compare indicators).

- ☐ 1 (1) _____
- ☐ 2 (2) _____
- ☐ 3 (3) _____
- ☐ Not applicable (4)

II section. Programme target achievement

Q13 **What factors <u>facilitated</u> your project target achievement in frames of the Programme?**

- ☐ Economical / financial factors (1)
- ☐ Technological factors (2)
- ☐ Factors related to HR: human resources (3)
- ☐ Regulatory framework (4)
- ☐ Factors related to the suppliers (5)
- ☐ Factors related to the consumers (customer demand) (6)
- ☐ Synergy with company aims and targets (7)
- ☐ Another answer (Please kindly detail) (8)

_____

Q14 **What factors <u>hindered</u> your project target achievement in frames of the Programme?**

- ☐ Economical / financial factors (1)
- ☐ Technological factors (2)
- ☐ Factors related to HR: human resources (3)
- ☐ Regulatory framework (4)
- ☐ Factors related to the suppliers (5)
- ☐ Factors related to the consumers (customer demand) (6)
- ☐ Lack of synergy with company aims and targets (7)
- ☐ Slow or complicated process of the application for the financial support. Please detail (7)

_____

- ☐ Another answer (Please detail) (8)

_____

Q15 **If the targets has been a significant deviation from the targets (targets significantly exceeded or not reached), please indicate the major reasons for that.**

- ☐ Project commencement timeliness (1)
- ☐ Insufficient financial support (2)
- ☐ Another answer (Please kindly detail) (3) _____
- ☐ There has not been any significant deviation from the targets (4)

III section. Evaluation of Programme's sustainability

Q16 Is the resulted product / service / utilised technology sustainable? Please detail. (If applicable).

- ○ Yes (1)
- ○ No (2)
- ○ Another answer (Please kindly detail) (3) _____
- ○ Not applicable (4)

○ Q17 **Do you plan to continue further production of the product, to provide the service or continue utilising the technology?** (If applicable).

- ○ Yes (1)
- ○ No (2)
- ○ Not applicable (3)

Q18 **What factors shall <u>facilitate</u> the sustainability of your product, provided service or utilisation of the technology?** (If applicable)

- ☐ Economical / financial factors (1)
- ☐ Technological factors (2)
- ☐ Factors related to HR: human resources (3)
- ☐ Regulatory framework (4)
- ☐ Factors related to the suppliers (5)
- ☐ Factors related to the consumers (customer demand) (6)
- ☐ Product/ service demand from the public sector (7)
- ☐ Employees' motivation to develop "green" innovation products (8)
- ☐ Compiling the innovative ideas within the company (9)
- ☐ Employees' knowledge and skills to develop and implement "green" innovation (10)
- ☐ Another answer (Please kindly detail) (11)

_____

- ☐ Not applicable (12)

Q19 **What factors shall <u>hinder</u> the sustainability of your product, provided service or utilisation of the technology?** (If applicable)

- ☐ Economical / financial factors (1)
- ☐ Technological factors (2)
- ☐ Factors related to HR: human resources (3)
- ☐ Regulatory framework (4)
- ☐ Factors related to the suppliers (5)
- ☐ Factors related to the consumers (customer demand) (6)
- ☐ Lack of product/ service demand from the public sector (7)
- ☐ Lack of employees' motivation to develop "green" innovation products (8)
- ☐ Not compiling the innovative ideas within the company (9)
- ☐ Lack of employees' knowledge and skills to develop and implement "green" innovation (10)
- ☐ Another answer (Please kindly detail) (11)

_____

- ☐ Not applicable (12)

IV section. Programme implementation

Q20 **How do you evaluate the process of the application for the financial support within the frame of the Programme LV06?**

- ☐ The process was simplistic (1)
- ☐ The process was complex (2)
- ☐ The process was relatively short (3)
- ☐ The process was relatively long (4)
- ☐ Another answer (Please kindly detail) (5)

_____

Q21 **Please advise what you would recommend to improve in the process of application for the financial support within the Programme LV06.**

- ☐ The process should be shorter (1)
- ☐ The process is too complex and should be more simplistic (2)
- ☐ The information should be more easily available (3)
- ☐ There is no recommendations for improvements (4)
- ☐ Another answer (Please kindly detail) (5)

_____

Q22 **Did the journalists show interest into your project and did the information about your project appear in the medias?**

- ○ Yes, there are articles about the project in the medias (1)
- ○ No, there are no articles in the medias covering the project (2)
- ○ Another answer (Please kindly detail) (3)

_____

Q23 **Was the information on the necessary minimum publicity activities easy to access and understand?**

- ○ Yes (1)
- ○ No (2)
- ○ Another answer (Please kindly detail) (3) _____
- ○ Not applicable (4)

Q24 **Has the financial support facilitated a better understanding of the importance of horizontal priorities* in the company and contributed to the continued respect for these? If yes, please explain how**.

*Gender equality, employment of socially excluded groups, etc.

- ○ Yes (1) _____
- ○ No (2)
- ○ Another answer (Please kindly detail) (3) _____

Q25 P**lease advise what would contribute, according to your opinion, to the long-term commitment of the company to maintain and improve the performance of the horizontal priorities?**

V section. Bilateral co-operation

Q26 **Did you participate in the program of the bilateral co-operation fund for promoting partnership with cooperation partners from abroad**?

- ○ Yes (1)
- ○ No (2)

If Q26 = Yes

Q27 **Did the activities resulted by the bilateral co-operation fund programme (seminars or networking) initiate a partnership with businesses from abroad?**

- ○ Yes (1)
- ○ No (2)
- ○ Another answer (Please kindly detail) (3) _____

If Q27 = Yes

Q28 **What were the results of you cooperation with a partner from abroad?** (Multiple answers are possible)

- ☐ Started a joint venture (1)
- ☐ You have created jointly a new product or a service (2)
- ☐ You are currently producing a new product or providing a new service as a result of your cooperation (3)
- ☐ You have jointly improved a technology or a process (4)
- ☐ Environmental pollution was reduced (CO_2, waste, sewage amount or pollution level) (5)
- ☐ Facilitated recycling (6)
- ☐ Another answer (Please kindly detail) (7) _____

If Q27 = Yes

Q29 **What factors facilitated your cooperation with a business from abroad?** (Multiple answers are possible)

- ☐ The operation of the potential partners' coincides with your market sector (1)
- ☐ Potential partners' product / service sector coincides with your market sector (2)
- ☐ Potential partners were highly interested in your product / service / technology / process (3)
- ☐ Latvian infrastructure is favourable for foreign partners (4)
- ☐ Attractive costs of land rent in Latvia (5)
- ☐ Favourable tac policy in Latvia (6)
- ☐ Available financial support: pre-incubation and incubation fond, implemented by "green" technologies incubator (7)
- ☐ Available financial support: SGS (8)
- ☐ Available financial support: Open tender (9)
- ☐ Another answer (Please kindly detail) (10)

_____

If Q27 = No

Q30 **What are the main reasons why your cooperation with foreign potential partners did not progress?** (Multiple answers are possible)

- ☐ The operation of the potential partners' did not coincide with your market sector (1)
- ☐ Potential partners were not highly interested in your product / service / technology / process (3)
- ☐ Administrative delays (lengthy processes on your or partners' side) (3)
- ☐ Lack of financing (4)
- ☐ Another answer (Please kindly detail) (5)

_____

If Q26 = Yes

Q31 **What would you recommend for further improvement within the programme**?

_____

6. Annex . List of participants in the Bilateral fund at the Programme LV06

18.Table Project application application open competition "Support for implementation of green" technologies in production participants' environmental indicators. Source: LIIA.

Private/legal person	Name
Juridiska	SIA THERMEKO
Privāta	Sergejs Dons
Juridiska	SIA High Energy Systems
Juridiska	SIA GIGI BLOKS
Juridiska	SIA 4 bee
Juridiska	SIA 4SmartStreets
Juridiska	A/S Digital Mind
Juridiska	SIA Inser IT
Juridiska	SIA Istabai
Juridiska	SIA Mappost
Juridiska	SIA MS - IDI
Juridiska	SIA SQUALIO cloud consulting
Juridiska	SIA REZBIT
Juridiska	SIA Smarteff
Juridiska	SIA Ekostandarts Tehnoloģijas
Juridiska	SIA V.L.T.
Juridiska	A/S PET Baltija
Juridiska	SIA Eco Baltia Grupa
Juridiska	AS VentEko
Juridiska	SIA INDUCONT
Juridiska	SIA Meliorators-J
Juridiska	SIA BC Engineering
Juridiska	SIA "Manco Energy Latgale"
Juridiska	SIA "Green Mart"
Juridiska	SIA "Probiotika LV"
Juridiska	SIA "GEO-IT"
Juridiska	SIA "Life Style Alliance Group"
Juridiska	SIA "INNOLABS"
Juridiska	SIA "TERMEX"
Juridiska	SIA WAVES
Juridiska	SIA "WWL Houses"
Juridiska	SIA "SCM Latvia"
Juridiska	A/S "BALTIJAS GUMIJAS FABRIKA
Juridiska	SIA "MĀLUPES DZIRNAVAS"
Juridiska	SIA "VESELĪBAS TEHNOLOĢIJAS"

Juridiska	SIA "FULL BOX"
Juridiska	SIA "MEX - 24"
Juridiska	SIA "KURLAND HOMES"
Juridiska	SIA "Race Transport Solutions"
Juridiska	SIA "LINUM COLOR"
Juridiska	SIA "LEGUKA"
Juridiska	SIA "AMBLINE"
Juridiska	SIA "TERMEX"
Juridiska	SIA LATLAFT
Juridiska	SIA WAVES
Juridiska	SIA Interaktīvo risinājumu grupa
Juridiska	SIA AURAVIA LATVIA
Juridiska	SIA Getliņi EKO
Juridiska	SIA "Pērlītes"
Juridiska	SIA BELSS
Juridiska	SIA CALORTEX
Juridiska	SIA Eko Alternatīva
Juridiska	SIA SAPROVITAL
Juridiska	SIA PKP-pētniecība, konsultācijas, pakalpojumi
Juridiska	SIA Electric RHINO RUN
Juridiska	SIA Silvanols
Juridiska	SIA Polylabs
Juridiska	SIA Nipon
Juridiska	SIA AirBoard
Juridiska	SIA Biokompozītmateriālu institūts
Juridiska	SIA Recolo
Juridiska	SIA AV Recycling
Juridiska	SIA PolyLabs
Juridiska	SIA EkoMed
Juridiska	SIA EPM Riga
Juridiska	SIA AirBorad
Juridiska	SIA RECOLO
Juridiska	SIA Intelligent Way
Juridiska	SIA AdvanGrid
Juridiska	SIA EKO KUBS
Juridiska	SIA Istabai
Juridiska	SIA GreyNut
Juridiska	SIA Energotronix
Juridiska	SIA ZAAO
Juridiska	SIA Blue Shock Bike
Juridiska	SIA Saules kolektors
Juridiska	SIA AVE TRANS.
Juridiska	SIA DĪLERS
Juridiska	SIA Energotronix