

Evaluation of the Food from Finland (2014-2023) and Green Growth (2011-2015) programmes

Mikko Valtakari (MDI), Juho Nyman (MDI), Valtteri Laasonen (MDI), Kaisa Lähteenmäki-Smith (VTT), Arash Hajikhani (VTT), Juha Eskelinen (Melkior)

Business Finland and its predecessors, Tekes and Finpro, have invested significantly in R&D development work across various fields and themes, as well as promoting the commercialisation and export of innovations, through programme activities. In recent years, the theme of sustainability and the growth of green business have risen up the economic and political agendas. Indeed, green growth is now viewed as displaying significant potential for the Finnish business sector where a carbon-neutral future and the implementation of circular economy thinking are increasingly seen as the missions guiding Business Finland's operations. Likewise, the food and beverages industry is an important sector of the Finnish economy for numerous reasons. Finnish food products have been identified as displaying significant market strengths (e.g. on food quality and purity, and on the uniqueness of certain materials and products) generating the potential to further penetrate global markets.

The main goal of this reported work has been to produce evaluation of the relevance, implementation, results, impacts and added value of two Business Finland programmes, Food from Finland (2014-2023) and Green Growth (2011-2015). In the latter case, this represents an ex-post evaluation of the programme, while in the former case, it represents the final evaluation of the two-part programme (Food from Finland 1, 2014–2018 and Food from Finland 2, 2019–2023).

Evaluation of Green Growth and Food from Finland programmes

Green Growth programme was implemented by Tekes in 2011-2015. Its goals were to identify and support potential new growth areas in a sustainable economy based on low energy consumption and the sustainable use of natural resources. The programme aimed to encourage innovations that significantly improved energy and material efficiency and to finance companies and value networks with growth potential in a resource-efficient and sustainable green economy. The aim was to identify and advance new potential growth areas thematically and in international target markets for green growth.

Food from Finland programme, implemented in 2014-2023, was involved in the building of an internationally competitive and sustainable food industry in Finland. The programme supported companies in increasing their exports and internationalisation expertise. Finpro launched Food from Finland programme and it received funding from the Ministry of Economic Affairs and Employment and the Ministry of Agriculture and Forestry. The quantitative objectives of the programme included: Doubling the value of

Finland's food exports to 3 billion euros, by 2025. In 2019 Food from Finland was transformed into a Business Finland programme in the fusion of Tekes and Finpro.

The evaluation of the Green Growth Programme focused in particular on identifying the programme's longer-term impacts after the end of the programme. Of particular interest here was the impact the programme had on the operating methods and business operations of the companies involved and, more broadly, on the development of the green economy in Finland.

The evaluation of the Food from Finland programme focused on evaluating the success of the implementation of the programme and how the transition from Finpro's Export Programme to the Combined Export and Innovation Programme functioned. Of particular interest here, in terms of the evaluation of the Food from Finland Programme, was the effects of the programme's activities on the volume of company exports.

Several methods and data were used to conduct the evaluation. These included statistical impact analyses using econometric methods to evaluate the business impact of the programmes. The Advanced Text Analytics method was used to analyse Business Finland's monitoring data, such as project reports, through advanced Natural Language Processing (NLP) and Large Language Models (LLMs). This is a new evaluation method and information about its functionality was obtained in this evaluation. A total of 17 interviews were conducted of which 11 concerned the Food from Finland programme and 6 the Green Growth programme. Electronic surveys were used to collect data on the effectiveness of the Food from Finland programme and project implementation, results and impacts, best practices and development needs. The survey regarding the Green Growth programme focused on the longer-term impacts and added value of the programme. Furthermore, literature analysis and descriptive statistical analysis was carried out using Business Finland project and funding database, as well as Business Finland CRM.

Relevance of the programmes

Both Green Growth and Food from Finland programmes have answered to a clear need for intervention in their programme themes. For Green Growth programme it was important to create stronger basis for new green business growth and to get a wider variety of industries involved. Food from Finland was needed to promote new international growth in new target markets for

The Green Growth programme was implemented during the period 2011-2015 with the broad aim of activating the transition to greener business models across various industries and value networks in Finland and in addition, to promote the creation of sustainable solutions especially for international target markets. The programme aimed to promote systemic change by influencing societal actors and by activating and funding RDI projects that would create new innovations and green business growth for future green markets.

Food from Finland, implemented in the period 2014-2023, on the other hand, was a very different kind of programme which aimed to internationalise the food industry and increase exports. The programme was initially implemented by Finpro (2013-2018), and in the second phase of the programme, by Business Finland (2019-2023). In the second stage the whole Business Finland repertoire of services was included in the programme, including RDI funding.

On the whole, both programmes answered to a clear need for intervention in their programme themes. In terms of Green Growth, it was important to respond to the growth potential of future green business markets by promoting the readiness and ability of Finnish operators enabling them to be better placed to seize the opportunities

the Finnish food industry.

associated with green business growth. Previous actions in the theme were mainly focused on the Cleantech sector, so in the context of the Green Growth programme it was important to get a wide variety of industries involved in the change and at the same time enable new growth e.g. with legislation. Similarly, in the Food from Finland programme, one of the main ideas was to expand the ex-port of Finnish operators to new countries, when it was seen that Russian export markets were increasingly being closed off after 2014. In general, the programme aimed to overcome the negative trade balance of the food industry in terms of exports and imports. It was important to open up new markets, because about 30-40% of Finland's food exports were directed to Russia. It was also important to develop the ability of smaller operators in the field to internationalise and export, where, it was deemed, there was significant room for learning and growth.

Even though the Green Growth programme was well timed, in some respects it was ahead of its time. The theme of the green transition has however subsequently become even stronger in the years after the programme. As such, it has been easier to promote related activities after the programme. On the other hand, the programme itself was one of the main factors which helped create a basis for strengthening thinking around the notion of 'green transition' thus contributing significantly to the developments that have taken place since. The Food from Finland programme was a long-lasting programmatic measure, being in existence for almost 10 years. The programme became an established part of food export operations and industry sector cooperation. During its implementation period the need for the programme remained high, at least for some of the operators in the field, while its relevance remained despite changes in the markets and in geopolitics.

Both programmes reacted well to the need for change during their implementation periods with emphasis of their activities changing reactively. The Food from Finland programme was able to map new target markets during the long implementation period of the programme and, where necessary, initiate direct investments to promote exports to the countries in question. The focus of the programme was refined halfway through the period and, in accordance with the recommendations of the previous evaluation, more focus was sought to improve the effectiveness of actions. In a similar fashion, the Green Growth programme's focus was evaluated after its initial years of operation. In the initial phase of the programme, focus was placed on strengthening capabilities in respect of green growth and systemic change by undertaking extensive influence work on various actors in society. In the second half of the programme, as envisaged in the preliminary programme plan, the programme aimed to significantly ramp up RDI project activity and the development of concrete solutions and services.

The high relevance of both programmes was due to the background work done in their planning, where customers were consulted, market research was carried out and messages from Business Finland's forecasting activities were taken into account.

Success of the programmes' implementation

The two evaluated programmes were fundamentally different in terms of their nature and function. In the implementation of the Green Growth programme, Tekes promoted a new type of wide-ranging influence programme, which included, in addition to its traditional RDI activities, influence actions aimed at systemic change and international influence work. Similar features can be observed in Business Finland's current mission-related programmes, which include a wide range of different types of measures. The

The two programmes are united by the fact that each has seen different stages in their implementation and their implementation has developed successfully.

Food from Finland programme, on the other hand, was one of the first Finpro growth programmes, paving the way for the subsequent development of that programme concept, focusing on export activities and improving the internationalisation ability of its target group.

The implementation of both programmes developed successfully during the implementation period of the programme and in practice, one can identify two clear phases in both the Green Growth and Food from Finland programmes. In the operation of the Green Growth programme, different issues were also emphasised at the beginning and at the end of the programme. The first part of Food from Finland was Finpro's export promotion programme, while the second was Business Finland's programme, which aimed to introduce a wider variety of activities and services to the programme.

In the initial years of the Green Growth programme, influence work was carried out and efforts made to lay the groundwork for wider actions enabling green growth for Tekes, partly as a new type of programmatic activity. In the second phase, in the final years, the programme was shaped into a more traditional Tekes-type programme activity, namely, as a programme that funded RDI projects. In the initial years, the programme challenged e.g. various actors (companies, state administration and the 3rd sector) to become more active and commit themselves to investments in green growth; tried to dismantle bottlenecks in legislation while efforts were made to create international relationships in the target markets. The main challenge in the early years of the programme, was that compared to normal Tekes programme activities, the benefits did not emerge as quickly as desired. The focus was thus subsequently shifted more strongly towards RDI activities in order to generate concrete outcomes more quickly. The implementation of the programme was, in part, an experimental activity at the start, from which lessons were learned. On the other hand, by the end, it had become a more traditional programme designed to support the development of innovations related to the theme. On the whole, the programme's level of ambition was very high, though it initially focused on 'difficult-to-achieve' changes in immature markets not as ready for exploitation as they are today. This brought challenges to the implementation and effectiveness of the programme.

In the Food from Finland programme, the means to create the desired impacts were considered appropriate, though some were clearly more effective than others. For example, catalysing co-operation and networking events, export promotion trips and customised customer meetings on the target markets and the promotion of electronic sales have all brought some level of success. In some of the export promotion activities however there have been no tangible longer-term benefits, with benefits remaining small and non-continuous. Another challenge for the programme was the heterogeneity of its target group, the programme faced challenges serving customers in very different situations and in selling different products. As the programme progressed, its implementation was focused, in accordance with the recommendations of the previous evaluation, on the target groups that would benefit the most, the most potential target markets and the most effective methods of operation.

The success of the Food from Finland programme was however that it constantly innovated and its implementation methods were successfully developed over time. The recommendations of the previous Food from Finland evaluation were quite successfully taken into account in the further implementation of the programme. This was particularly visible in the programme's strategic choices, where the focus was narrowed to measures that worked better, with efforts directed more strongly at companies with the most potential to succeed in export terms. Another success was that important stakeholders

Important lessons have been learned from the implementation of the programs. From Green Growth lessons were learned about a new type of wide-ranging influence program, which included, in addition to its traditional RDI activities, influence actions aimed at systemic change and international influence work. Food from Finland, lessons were learned of the effective ways to promote the export and internationalization of the food industry.

were connected to the programme's implementation process. Promoting food industry exports requires the support of food industry expert organisations and authorities, something which was specifically included in the programme. In addition, through the Ministry of Employment and the Economy and the Ministry of Agriculture and Forestry, more funding was added to the programme funding pot and at the same time the participation of the ministries in the programmes increased their significance and thus the ability to get a wide range of actors involved (including key actors in the administrative sectors). The Food from Finland programme was also created by a very efficient integration process between the management of the food industry, the Food from Finland programme team, and the international team of Business Finland, which in one direction brought together the resources of various actors and increased the effective implementation of the programme. As such, an important part of the success of the programme's implementation here was the competence and resourcing level of the personnel involved.

In the implementation of both programmes, a special effort was made to open up international markets, from which lessons were also learned for the future. In the Green Growth programme, a bold effort was made to open up potential international target markets for Finnish operators with the green growth market in mind. Cooperation and influence work was done with local partners. In particular, the BRICS countries and especially India were important target markets. The Food from Finland programme, on the other hand, promoted export and internationalisation together with similar operators in other countries. It was impressive to combine resources with, for example, operators from Sweden, Denmark, Estonia and Latvia. In particular, cooperation with the Try Swedish programme was extensive and close and proved a good course of action. The programme also trained the contacts of Business Finland's international networks in the target countries with the needs of the programme's internationalisation and export promotion goals in mind, and in this way it was possible to implement, with competent personnel, actions tailored for the food industry in the target markets. The programme also collaborated with foreign universities and developed expertise in the field. In both programmes, it was generally seen as important to boldly increase the cooperation of international players and work to influence the international market.

Significant lessons were learned from the implementation of both programmes, particularly for those that followed them. The Green Growth programme laid the groundwork for the implementation of bold new programmatic actions. It is important to activate the field purposefully and to create connections to global markets with a view to opening up new market opportunities there. Moreover, activities like this require the necessary application of time and knowledge as well as the right target-relevant products for the markets concerned. From the Food from Finland programme, lessons were learned specifically about more effective ways to promote food industry exports. In addition, the growth programme concept developed as part of the programme and was subsequently transferred to Business Finland, eventually becoming part of the Business Finland programme model which has a wider selection of activities.

Programme continuums

Green Growth was preceded by programmes that tried to develop sustainable business, especially in relation to the Cleantech theme. Green Growth however expanded the

Both programmes have had connections and influence to previous, simultaneous and later development programmatic activities.

theme to more broadly encompass different industries and laid the foundation for future activities. Green Growth was followed by several different Business Finland programmes (like Smart Energy, BioCircular, Sustainable Growth, Sustainable Manufacturing in Business Finland and the Circular Economy programme in Sitra etc.,) which were connected to the sustainability theme and promoted the growth of green business. Green Growth is one significant part in this chain of programmes, which led, for example, to an increase in the significance of the theme in Business Finland. With the Green Growth programme, it is possible to identify connections and continuities with the programmes that followed it in terms of the continuity of the programme's personnel and development work, as well as in how the theme of green growth can be seen in the new programmes. In general, the theme of sustainability has become a more central theme in Business Finland's strategy.

Preceding the Food from Finland programme was e.g. the Sapuska programme, which was a more traditional Tekes-type RDI programme. Before the Food from Finland programme, there was no comprehensive export promoting programme connecting different actors and key players. Export work was more fragmented before Food from Finland and, as such, it was the first activity and platform to gather actors together on a broader scale for export and internationalisation activities. After Food from Finland concluded in 2023 however, a clear cooperation and export promotion platform in food and beverages industry no longer exists. There are however plans to, at least partly, replace Food from Finland's activities, and smaller-scale activities have subsequently been implemented. Food from Finland, as Finpro's growth programme, has however generated lessons related to other growth programmes and the ex-port promotion activities that followed it, and through this the programme has created its own kinds of continuities.

Results, impacts and added value of the programmes

The Green Growth programme sparked discussion as well as challenging and influencing general thinking, particularly where it was envisaged that the promotion of green growth would be extended from the cleantech sector to various industries and organisations in society. The programme represented one part of a broader attempt to strengthen green business thinking encouraging different operators to better realise its business possibilities. The Green Growth programme served as one link in the chain, which has led to the fact that today the green transition appears prominently on the agenda of Business Finland and more widely in society.

In addition, the programme can also be seen to have contributed to the improvement of business opportunities for green growth. In the programme, interesting business models were generated and growth opportunities were opened up. The programme also increased confidence in the ability of Finnish companies to develop and commercialise interesting green solutions internationally. It also influenced the cooperation and interaction of different actors in the theme. To some extent, this was also reflected in the possibilities around international cooperation.

Evaluation data shows that the Green Growth programme supported and enabled business growth among the companies that received funding and implemented RDI-projects in the programme. In terms of turnover, these companies have clearly grown more than similar reference companies. Over an eight-year period, the median revenue growth for companies participating in the Green Growth programme was 77.5%, while at the same time it was only 17.1% for a control group of similar companies. The positive impact is particularly evident in promoting the effects of international growth. The

The Green Growth program has influenced the opening of new business opportunities and created a foundation for future green business growth. Growth can be seen in the companies that participated in the programme.

programme's benefits and impacts on business were also felt to be greater in several of the companies where the turnover growth has been greater. From this it can be concluded that at least part of the growth of companies is based on green business.

Considering the activities of Tekes and Business Finland, the programme, for its part, strengthened the status of the theme of green growth in Business Finland, something which has been further strengthened since the programme ended. The Programme was followed by several other programmes with same theme and Green Growth can now be seen as part of longer chain of measures to strengthen the significance of the theme in Business Finland. The Green Growth programme also introduced novel ideas into the development of Business Finland's programme concept.

In its own lifetime, the programme did not manage to bring about change to the extent and to the depth foreseen in terms of its original expectations. More significant changes have however followed in terms of the programme themes subsequent to its conclusion. The programme thus undoubtedly played a role in terms of these longer-term changes to the development of green business.

The programme played an important role here alongside other factors, bringing credibility to green business and opening up paths for its further development. The programmatic investment was important in this case, as it increased the importance of the issue and promoted the theme more strongly onto Business Finland's agenda. In addition, the level of understanding was deepened regarding the business possibilities associated with the green growth theme in the programme's activities and projects.

The 'added value' of the Green Growth programme can be seen in the strengthening of the 'green transition' theme across a wide range of industries and in increasing the credibility of green growth.

In the Food from Finland programme, exporting and the internationalisation of companies was activated and supported, making export growth possible. The general goal of doubling food exports from 1.6 billion to 3 billion euros was not however achieved during the programme, but in relation to the challenges in respect of food export activities to other countries and the challenging developments occurring in the operating environment, the growth of the industry's exports can be considered a success. The value of food exports in 2023 was approximately 2.2 billion euros. After the collapse of Russian trade, which represented some 1/3 of the Finnish food exports in 2013, the programme however proved important in supporting export growth to new markets. The programme enabled openings to new markets supporting export-led growth to new markets.

The Food from Finland program has influenced the growth of exports to several new target countries. Its significance is particularly strong in the

Several of the companies that participated in the Food from Finland programme increased their exports during the programme period. According to the results of the evaluation, the Food from Finland programme has had a part to play in this process for many companies. For example, the export development of companies participating in the Food from Finland programme has clearly been better in the period 2014–2023 than the overall export development of the food manufacturing and beverage industry. The programme was particularly successful in promoting exports to EU countries. A significant observation here is also that those companies that have more actively participated in the programme's export promotion services have also increased their exports more. This suggests that also the programme's services have had an impact on the growth of international business for several companies. It should be noted though that for those individual companies that increased their exports, the importance of the programme undoubtedly varied. While large players could already promote their export offers more independently, for SME's, the programme services have been more important. The programme has made it possible for SMEs in particular to make contacts,

growth of exports to EU region.

gain access to electronic sales and marketing channels, increase visibility and thus improve their ability to export and internationalise.

A key effect of the programme has also been the improvement in terms of strategic understanding skills in the business field in relation to export and internationalisation among the group of companies that participated in the services. The programme was also important in increasing cooperation and networking in the sector, gathering together resources and coordinating export promotion activities.

Food from Finland was important then in that the programme was a permanent and long-term platform, which delivered long stability in relation to the promotion of exports in the sector. It was clearly an important factor here that there was a programme in existence uniting companies and key players in the field enabling them to combine resources and provide the necessary support required for export promotion activities. This had not existed either previously or since to the same extent. Another important 'added value' in the context of the Food from Finland programme was, that it offered a common national brand to food industry operators. This undoubtedly improved the visibility of Finnish operators and enabled a broader level of attention to be given to the overall offer of Finnish actors in the food industry. The key added value of the Food from Finland programme was thus that, particularly for smaller companies, it enabled export promotion activities and the facilitation of their capabilities as export-oriented operators.

The Food from Finland programme functioned nationally as a platform that brought together actors in the food industry and it worked as a coordinator to implement export promotion activities more comprehensively and effectively.

Recommendations

Recommendations regarding the programme themes of green growth and food and beverages export activities:

The Food from Finland programme represented a central platform for food industry exports and internationalisation activities over the past 10 years. At the end of its operation, there is still a need for coordination and cooperation of export and internationalisation work, but at present, it is unclear how this should be organised. The control countries have established state-led structures related to the matter. At the same time, when Food from Finland ended, many of the structures, methods of operation and know-how created in the programme were no longer utilised, unless this specific issue is comprehensively addressed this represents a wasted opportunity. Business Finland should also play a central role in industry development in the coming years, especially in RDI activities. The industry offers a lot of business possibilities which could further be exploited with strong RDI investments.

Development recommendation 1. After the end of Food from Finland programme concluded and the possible transfer of export services to the Ministry of Foreign Affairs, the status of the food and beverages industry should be clarified and strengthened in Business Finland's agenda. The food and future food systems theme could be made stronger, potentially as a sub-theme, under a broader mission.

Development recommendation 2. The emphasis of R&D activities in the food industry could be specified and determined in Business Finland more specifically. It would be important to clarify in co-operation with the actors in the sector, which specific expertise areas Finns have the opportunity to stand out and create competitive, commercialisable innovations.

Development recommendation 3. After the Food from Finland programme ended, the roles of food export actors should be redefined in cooperation between Business Finland, industry actors, Suvi ry, Ruokatieto, the various ministries involved, and other stakeholders. It would be useful to establish a shared vision and clarify stakeholder roles. Furthermore, a new established platform for export promotion could be created for the sector. Based on the Food from Finland programme, a continuation of the new export and internationalisation support platform is needed.

Development recommendation 4. It should also be considered whether the continued use of the Food from Finland brand could be made possible in future and the matter should be investigated further by Business Finland. If the use of brand is continued, it should also be coordinated with various actors responsible for promoting exports.

The theme of green transition and green growth has been high on Business Finland's agenda in recent years after Green Growth programme. They are especially visible in Business Finland's missions Circular Transition for Zero Waste and Zero Carbon Future. Business Finland should continue to take on an even stronger role and guide development of the theme and influence nationally and internationally in the promotion of perspectives that are important to Finland. At the same time, the R&D activities of Finnish actors should be directed towards global market needs and themes that require global solutions and to international markets. The international commercialisation of solutions requires courageous influence work and participation on the international stage.

Development recommendation 5. Business Finland could secure a clearer role for itself to guide the development work in respect of green growth in the future. This would require that the organisation retains sufficient understanding and 'know-how' and, through funding and influence activities, the opportunity to influence the development of the theme nationally and also internationally. The status of the green growth theme in relation to emerging themes in the evolving operational environment should be evaluated and an ambitious approach should be secured to foster competitive concrete solutions, services and business advancements.

Development recommendation 6. Regarding the Business Finland R&D activities related to the theme of green growth, it should be ensured that the starting point should be the development of global-level solutions to international target markets.

Recommendations regarding the programme instrument and Business Finland:

Business Finland's internationalisation and export services may be transferred to the Ministry of Foreign Affairs in future. In this situation, it is necessary to note that the innovation-commercialisation-internationalisation process of Business Finland as a whole will continue to function uninterruptedly into the future as well. The potential challenge here being that innovation activities are carried out too distantly from international commercialisation efforts.

Also in future, there is need for different types of Business Finland programmatic activities. There is clearly a need for programmes that aim to bring about extensive systemic change in mission themes. In addition, also for industry-specific programmes that drill down to the specific needs of potential users.

Development recommendation 7. Business Finland and other relevant actors should ensure the functionality of the innovation—commercialisation—export pathway between Business Finland’s innovation activities and the future export promotion services in the Ministry of Foreign Affairs. A clear process should be planned to ensure that the transfer of innovations to export promotion activities works efficiently. This should also be explicitly noted in the context of the programme activities.

Development recommendation 8. Based on the results of this evaluation, in future, it would be important that Business Finland implements programmes that aim to bring about broad systemic changes in mission themes, as well as industry-specific programmes that drill down to specific needs.

Development recommendation 9. For future programmes, it would be useful that clear customer groups are defined for the programmes. This helps to direct and tailor the programme measures according to the needs of the customers and, on the other hand, to monitor whether the programmes produce the desired separate effects.

Contact information:

Teppo Tuomikoski, Business Finland, teppo.tuomikoski@businessfinland.fi

Juho Nyman, MDI, juho.nyman@mdi and Mikko Valtakari, MDI, mikko.valtakari@mdi.fi